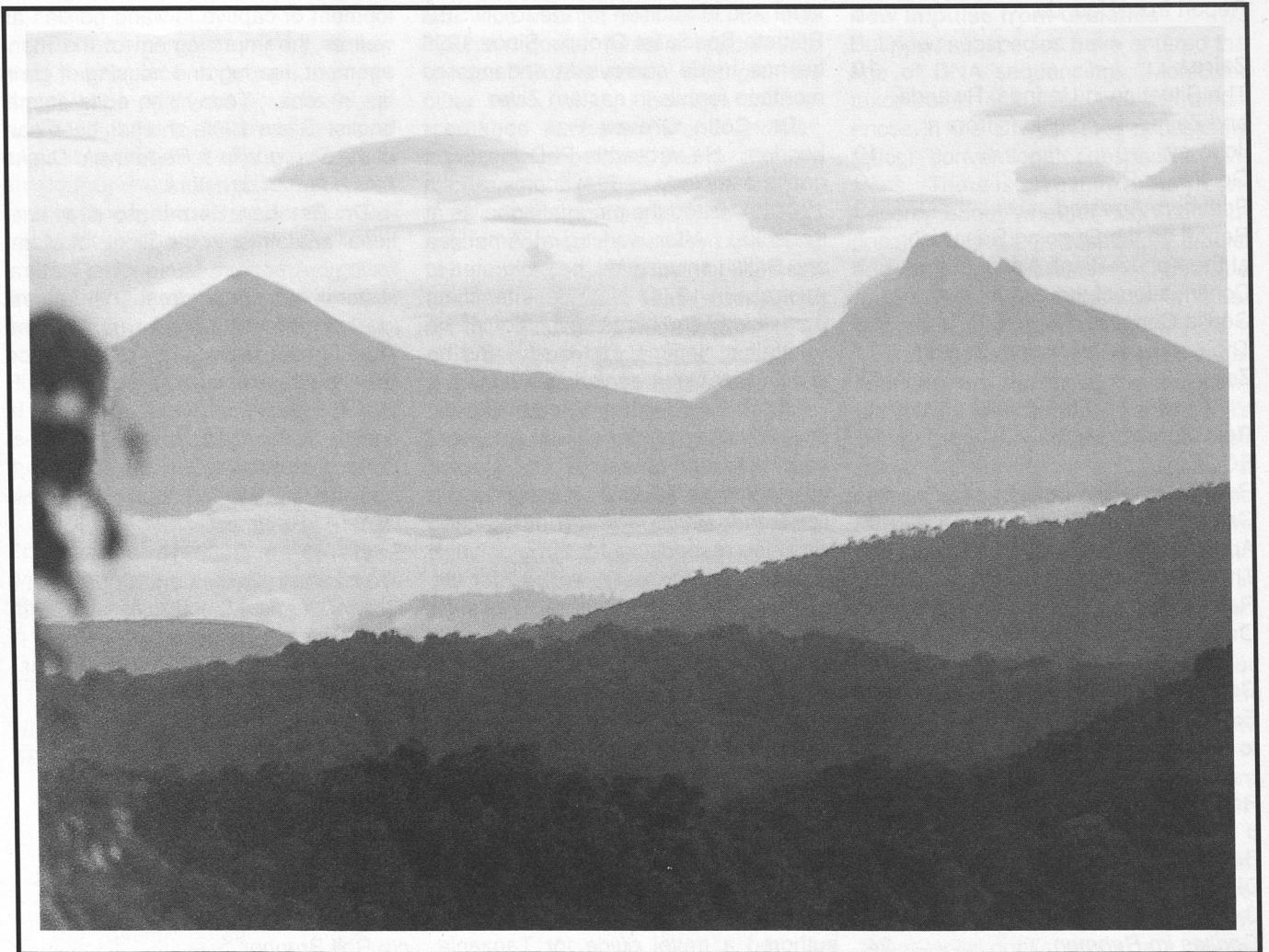


Gorilla Journal

Journal of Berggorilla & Regenwald Direkthilfe

No. 12, June 1996



**Do we Need to
Update the
Taxonomy of
Gorillas?**

**The Situation in
Uganda, Rwanda
and Zaire**

**Poachers
Arrested**

**Rain Forests and
Gorillas in Camer-
oon and Nigeria**



BERGGORILLA & REGENWALD DIREKTHILFE

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Authors of this Issue

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10 Dr. Colin Groves was born near London. He wrote his PhD thesis on gorilla osteology and taxonomy, and in 1971 he visited the mountain gorillas at Karisoke. After working at American and British universities, he emigrated to Australia in 1974. Now he is teaching primatology and human evolution at the Australian National University, and he is doing research on various animals.

15 Ulrich Karlowski studied biology at the University of Bonn with emphasis on behavioural research. For 3 years he worked as scientific advisor for the *Deutscher Tierschutzbund* in Bonn and was also responsible for the Mgahinga Project. He has been working for the *Berggorilla & Regenwald Direkthilfe* since 1992, and since 1994 he has been a member of the board of directors. Presently he works as a freelance journalist.

21 Christoph Lübbert has studied medicine in Kiel, Germany since 1992. Since his schooldays he has been active in nature conservation, especially for WWF. In 1991, he travelled to eastern Africa for the first time, and after that he visited Africa every year. He co-authored a travel guide for Tanzania and Zanzibar and one for Malawi. In 1996, he will publish a travel guide for Uganda and eastern Zaire.

25 Mbake Sivha studied Biology at the University of Kisangani, Zaire, and worked in the IZCN/GTZ conservation project at Kahuzi-Biega National Park. Then she specialized at Würzburg Uni-

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Dr. Angela Meder studied biology at the University of Heidelberg. She specialized in the behaviour and development of captive lowland gorillas as well as the improvement of the management, rearing and housing of gorillas in zoos. Today she edits animal books. Since 1992, she has been part of the *Berggorilla & Regenwald Direkthilfe* board of directors.

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Gorilla Journal 12, June 1996

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Production: Gentner-Verlag, Stuttgart

Cover: The Virunga Volcanoes viewed from Ruhija, Bwindi Impenetrable National Park

Photo: Karl-Heinz Kohnen

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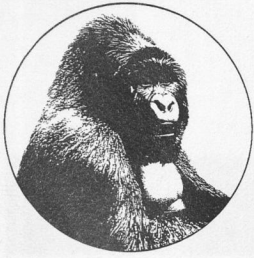
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GORILLAS

Do we Need to Update the Taxonomy of Gorillas?

More than 30 years ago, I measured 469 male and 278 female gorilla skulls (and a small number of postcranial skeletons), of known origin, and analyzed them by the method known as discriminant analysis. I concluded that:

1. Western gorillas vary somewhat from place to place, but not sharply; one could not confidently assign a skull (or skeleton) of unknown origin to a particular region. All western gorillas should therefore be considered to belong to one subspecies, *Gorilla gorilla gorilla*.

2. There are slight average differences between animals from the Cameroon plateau, the Cameroon, Gabon and Congo lowlands, the Sangha River valley, and the Cross River district on the Cameroon/Nigeria border (see also map on page 16). I called these "demes" of the western subspecies *Gorilla gorilla gorilla*.

3. Three skulls from Djabbir, near Bondo in the Uele River valley, northern Zaire, are typical members of *Gorilla gorilla gorilla* despite the wide gap in distribution between them and the

nearest (Sangha River) populations further west.

4. Distinctions among eastern gorilla populations are stronger, on the whole, than those among western. Those from the Itombwe Mountains, the Utu lowlands, and Mt. Tshiaberimu are fairly alike, while those from the Virunga Volcanoes are sharply different. The Virunga population, the true mountain gorilla, forms a special subspecies, *Gorilla gorilla beringei*; the other three, which I perhaps unwisely dubbed "eastern lowland gorillas", should be separated into a different subspecies, *Gorilla gorilla graueri*.

5. *Gorilla gorilla graueri* is to some extent intermediate between the other two subspecies, and the Mt. Tshiaberimu population is to some extent intermediate between *graueri* and *beringei*.

When I published these findings in a research paper, I had too few specimens to say where the gorillas of Mt. Kahuzi or the Kayonza (Bwindi) Forest belonged, but later Ken Stott and I surveyed all the available evidence and concluded that Kahuzi are *graueri*, Kayonza are *beringei*.

I had made some observations on the external identifying features of gorillas; these were extended by Don

Cousins and later by Ken Stott and myself. We agree – and so, as far as I know, do all those familiar with gorillas – that the three subspecies can be identified with near certainty (in the case of western lowland gorillas, absolute certainty) when alive. So they are real.

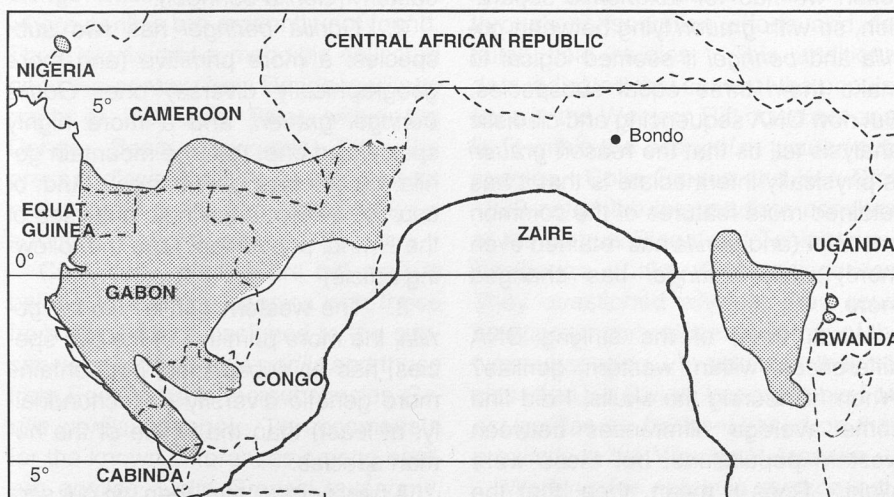
New Impulse from Genetics

But now, subspecies have entered the age of DNA sequencing. Molecular taxonomists often find that the differences in the DNA do not necessarily reflect conventional subspecific divisions. There is presently a lively controversy about whether such conventional subspecies, based on cranial and external characters, should be maintained nonetheless, or whether they should be abandoned.

The most widely studied genetic sequences are in mitochondrial DNA (mtDNA). Mitochondria are the cell's energy powerhouse and contain their own DNA, outside the cell nucleus. It can be extracted from the hairs shed by gorillas in their night-nests. So we can analyze the mtDNA of mountain gorillas, even though there are none in captivity and we cannot take blood samples.

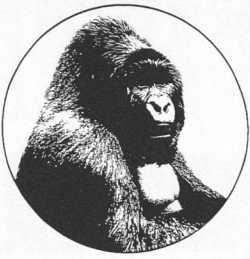
Karen Garner and Oliver Ryder were the first to compare DNA from all three gorilla subspecies. They sequenced a particular segment of mtDNA and gave a table of percent differences, from which I have constructed a dendrogram (page 4). It shows that, like the cranial distances, the western/eastern split is the deepest one, but the splits within western gorillas (*Gorilla gorilla gorilla*) are deeper than the split between the eastern.

Maryellen Ruvolo and her team likewise compared mtDNA among gorillas, but analyzed a different segment. They found exactly the same picture as Garner and Ryder: a very deep western/eastern split, and the splits within western gorillas deeper than the split

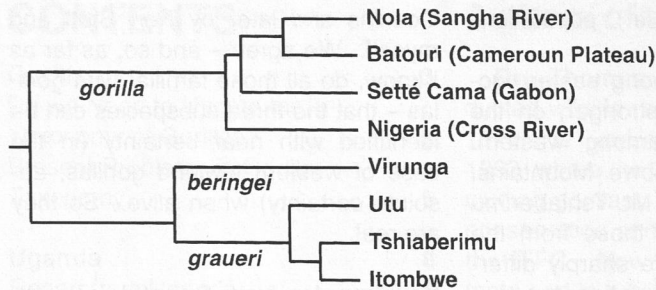


Gorilla distribution areas

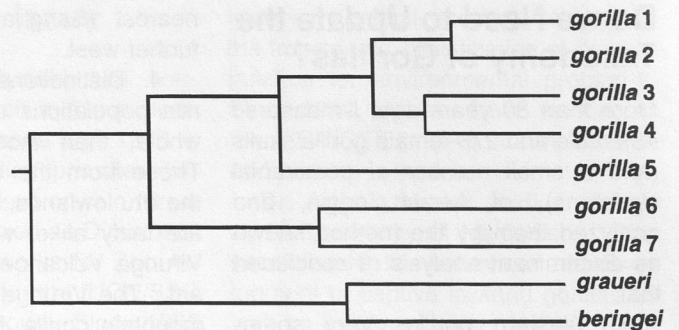
Drawing: Angela Meder



GORILLAS



Dendrogram derived from skull measurements of adult male gorillas



Dendrogram derived from a table of genetic distances (study of Karen Garner and Oliver Ryder)

Original drawings by Colin Groves

between *beringei* and *graueri*. They went further, however, comparing the amount of differentiation among gorillas with that found, for the same gene, among humans, chimpanzees and orang utans. The *beringei*/*graueri* separation is about the same as that between the most differentiated humans, but less than that between presumed subspecies of chimpanzee or orang utan. The eastern/western split in gorillas is greater than that between common and pygmy chimpanzees, but less than that between Bornean and Sumatran orang utans. The authors imply that perhaps eastern and western gorillas ought to be regarded as distinct species.

It has been calculated that the rate of change in mtDNA indicates that human populations began diversifying about 200,000 to 300,000 years ago. If this is so, then this would be the timing of the split between *graueri* and *beringei* too. In this connection, it may be relevant that Ken Stott and I calculated on geomorphological grounds that *beringei* and *graueri* must have been separated at least 100,000 years ago, whereas eastern and western gorillas have been separated for five times as long. According to Ruvolo et al.'s calculation, this would mean 1 to 1.5 million years. What price, then, two species of gorillas rather than just one?

Conclusions for Taxonomy

Although just two DNA sequences, both from the mitochondria, are slender if suggestive evidence, and although the equation "so much time since separation equals so much taxonomic difference" is not necessarily completely logical, I would not be opposed to recognising two distinct species of gorilla. The differences in the skull and appearance between eastern and western populations are certainly greater than those between *beringei* and *graueri*, even if to some degree *graueri* is intermediate. In the 1960s "degree of difference" was the only criterion we had for taxonomic separation, so with *graueri* lying between *gorilla* and *beringei* it seemed logical to make them three equal subspecies. But now DNA sequencing and cladistic analysis tell us that the reason *graueri* is physically intermediate is that it has retained more features of the common ancestor (and *gorilla* has retained even more) while *beringei* has changed more.

What, then, of the striking DNA differences within western gorillas? When measuring the skulls, I did find some average differences between western populations, but these were slight. Does it mean, then, that the western populations are different in molecular differences which do not

show up in their appearance or skeleton? I doubt it; most of today's captive western lowland gorillas were from Cameroon, so it is very likely that their enormous mtDNA diversity – 400,000 to 600,000 years worth, according to calculations – represents diversity within a single population! This is perfectly in order: in fact, in Ruvolo et al.'s survey the diversity within one subspecies of common chimpanzee is even slightly greater.

The conclusion of all this, then, seems to be:

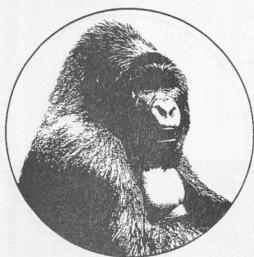
1. There may be two species of gorilla: western (*Gorilla gorilla*) and eastern (*Gorilla beringei*).

2. *Gorilla beringei* has two subspecies: a more primitive (and more geographically diverse) one, *Gorilla beringei graueri*, and a more highly specialized one, the true mountain gorilla, *Gorilla beringei beringei*. And, of course, we await the new analyses of the Bwindi population! (see the following article)

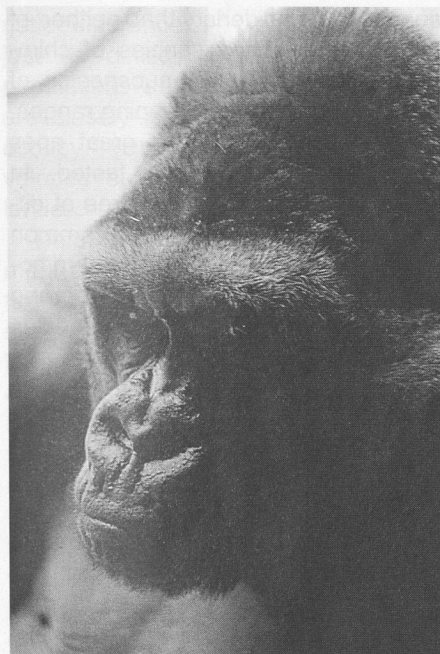
3. The western gorilla, *Gorilla gorilla*, the more primitive of the two species, has no subspecies, but contains more genetic diversity (mitochondrially, at least) than the whole of the human species.

A new perspective, then, on our second-closest living relative?

Colin Groves



GORILLAS

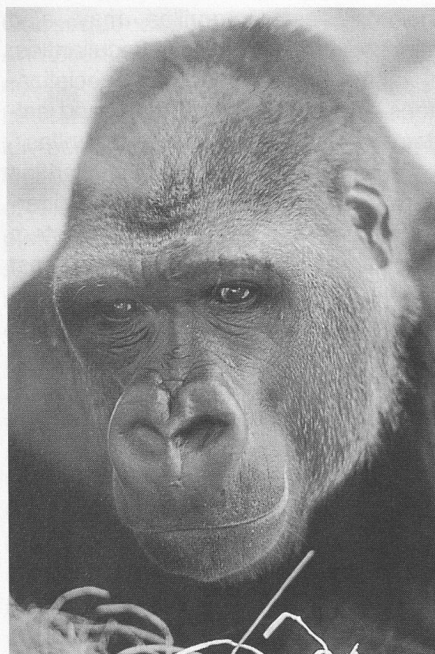


Gorillas from Cameroon

Present Problems in Gorilla Taxonomy

Gorillas are distributed within the forests of east and west Equatorial Africa. Their eastern and western distribution areas are separated by approximately 1,000 km of low lying lands within the Congo Basin (see map on page 3) where gorillas are presently not found. Three skulls and a mandible collected early this century from Bondo, a village north of the Uele River within the Congo Basin, suggests that the present discontinuity between eastern and western gorilla populations may be a recent phenomenon.

Classically, gorillas are believed to belong to a single species with those from West Africa assigned to the subspecies *Gorilla gorilla gorilla* and those from East Africa to the subspecies *Gorilla gorilla beringei*. To accommodate for the known differences among eastern gorillas, Colin Groves' taxonomy, which is the currently accepted one, recognizes a third subspecies, *Gorilla*



Photos: Angela Meder

gorilla graueri. According to him, Virunga gorillas are the only population of *beringei*, while all other populations of eastern gorillas are *graueri*.

In the quarter of a century that has passed since Colin Groves' taxonomic revision, many populations of free-ranging gorillas, both in East and West Africa, became better known both through conservation efforts and detailed field studies. This additional data indicated that some of the populations in the Western Rift could not easily fit within the *beringei* or *graueri* subspecies. Colin Groves and Ken Stott 1979 noted the intermediate condition of the Kahuzi-Biega and Tshiaberimu/Alimbongo (Lake Edward) gorillas. They questioned whether they could be appropriately placed in either of the two subspecies. In addition, they reclassified the Bwindi Impenetrable Forest gorillas as *beringei* based on their proximity to the Virunga Volcanoes.

Working for nearly a decade conserving gorilla habitats both at Bwindi Impenetrable Forest and in the Vi-

rungas, Thomas Butynski, together with Jan Kalina, observed marked differences in the external appearance, behaviour and habitat of the two gorilla populations. Bwindi gorillas live at lower elevations, warmer temperatures and are much more arboreal than their counterparts in the Virungas. Moreover, Bwindi gorillas have longer day ranges, larger home ranges, and eat much more fruit and pith, and less bamboo and leaves. Additionally, the two gorillas are distinct in external characteristics, especially in the shape and form of the nose and the degree of facial wrinkling.

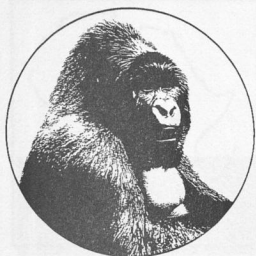
New Subspecies?

In a paper in press, Esteban Sarmiento, Thomas Butynski and Jan Kalina also demonstrated morphological differences between Virunga and Bwindi gorillas. Bwindi gorillas have smaller bodies, relatively longer limbs, hands and feet, shorter thumbs and bigger toes, and narrower trunks than Virunga gorillas. Significantly, these morphological differences are closely associated to differences in habitat and behaviour. Such an association argues for adaptive differences and seriously refutes the designation of Bwindi gorillas as *beringei*.

Considering the geographic proximity of Bwindi to the Virunga Volcanoes (25 km), taxonomic differences between the two gorilla populations further exposes the possibility that some of the other isolated, less studied gorilla populations in the Western Rift belong to taxa other than *graueri* or *beringei*. Along the Rift, geographic proximity of any two populations can no longer be taken to represent genetic proximity or vice versa. As such, there is presently no conclusive proof as to what taxon Bwindi gorillas belong to.

Gorilla Species and Subspecies

Despite unique distinguishing features, all of the eastern gorilla populations



GORILLAS

netic differences. Conversely, it is just as difficult to discern whether populations are similar because they are closely related, or because they occupy similar habitats and have developed superficial, convergent similarities.

Deforestation and human encroachment which is extremely severe along the Western Rift, and the subsequent separation of what may otherwise have been continuous populations, further confuses this situation. The accepted use of non-overlapping ranges to define subspecies differences does not readily apply to recent artificial conditions created by humans.

Through human encroachment, what was recently a single population occupying a wide range of habitats, can presently appear to be two or three separate populations each with a restricted habitat range, and each satisfying the criteria for separate subspecies. By the same token, the possibility that some populations could have been recently continuous makes the diagnosis of what would otherwise clearly be different subspecies tentative.

Consequences for Conservation

An accurate classification of gorillas is not just an academic matter. Gorilla habitats along the Western Rift are rapidly being isolated from each other and lost to agriculture and grazing. Some of the gorilla populations are so depleted in numbers that it may be necessary to introduce animals from other areas to insure that such populations do not disappear. Given their present rate of decline, it is conceivable that zoos will be the last refuge for some of these populations. To maintain the present diversity of gorillas, individuals bred or introduced, or populations linked through re-established corridors, should be of the same subspecies. Additionally, if animals are to be introduced, adherence to the same subspecies insures a close fit of the animal to the environment and this improved viability.

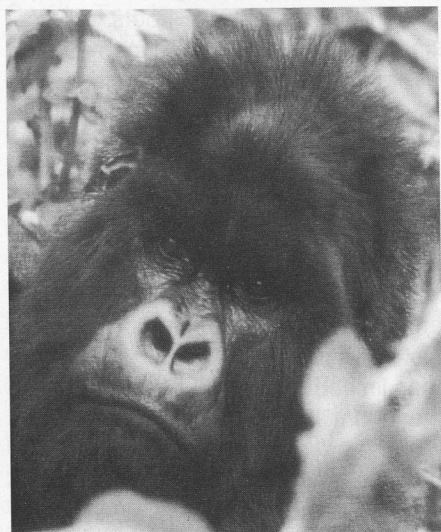
To further clarify gorilla taxonomy, we are presently studying both the habitat and morphology of the Lake Edward animals to see how they compare to Virunga and Bwindi gorillas. We have already surveyed the Mt. Tshiaberimu population and will return

in the near future to look at other localities of Lake Edward gorillas.

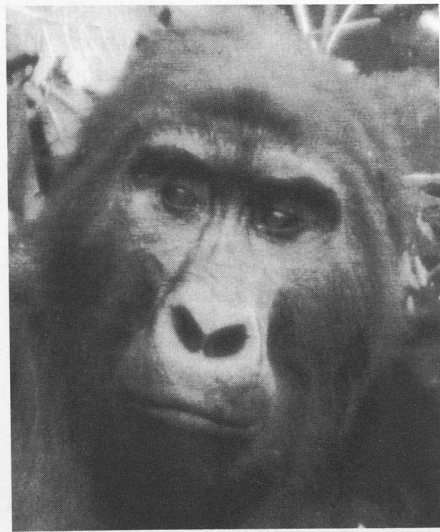
Notably, although Lake Edward gorillas live at elevations that overlap with those of Virunga gorillas, they differ considerably from them in body proportions, molar surface area and associated behaviours. Our preliminary studies show these differences are characteristic and distinguish them from other eastern gorilla populations. Therefore, Ernst Schwarz's recognition of the subspecies *Gorilla gorilla rex-pygmaeorum* (1927) for the West Lake Edward gorillas is probably valid.

We have also begun a museum study of Itombwe gorillas, since they seem to share strong morphological and habitat similarities with Bwindi gorillas. We hope to analyze genetic and morphological information from all the eastern populations to help grade the lability of observed differences, and further refine our gorilla classification. This work should help us decide whether Bwindi gorillas merit a new taxon, or whether they should be considered *Gorilla gorilla graueri*.

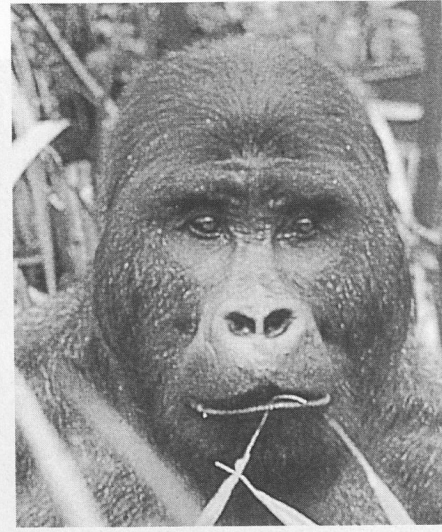
*Esteban Sarmiento
and Thomas Butynski*



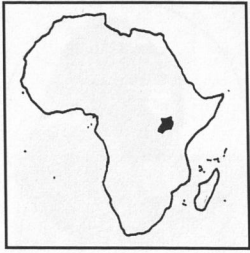
Silverback of the Suza group in Rwanda Photo: Christoph Lübbert



Young silverback in Bwindi Photo: Andreas Obst



Silverback in Kahuzi-Biega Photo: Bernd Steinhauer-Burkart



UGANDA

Report from Uganda

Karl-Heinz Kohnen and I visited Uganda from 12 to 24 March 1996. A film team of the Bayerischer Rundfunk (Bavarian Radio and TV) led by Christian Herrmann – with cameraman Ralph Hackner and camera assistant/sound engineer Michael Gebert – was at that time staying in Bwindi.

Several film teams have recently visited Bwindi and some of them tried to get good shootings with very questionable methods. It was Christian Herrmann's great concern to disturb the animals as little as possible and to show their natural behaviour as well as the forest and the landscape in and around the national park and projects for solving the region's problems. Ignatius Achoka, the Chief Park Warden, was filmed talking about the difficulties he has to deal with, and Angela Meder gave several interviews.

Bwindi

It has finally been decided not to improve the dirt road from Buhoma to Nteko although this had been requested by the local population. Approximately 50 people use the road twice a week, when a market is held in

Nteko. The dirt road to Ruhija is not to be improved either, therefore the Kithurira corridor is not in danger at the moment. Once a day a lorry of the tea factory uses this road which is graded occasionally.

According to Ignatius Achoka, the illegal residents of the Mbwa River Tract, an area within the national park, have been resettled. They received compensation. There is only one hut left in this area; all the others were taken down by their former inhabitants.

Eric Edroma, the Director of the Ugandan national parks authority, told us that the most difficult conflict between the local people and the national park is crop raiding by animals leaving the park to forage. IGCP (*International Gorilla Conservation Programme*) and CARE are responsible for the management of the Bwindi National Park. In this, these organisations are not controlled by anybody. The rangers are treated in a very authoritarian way.

Mgahinga Gorilla National Park

Since November 1995, the number of persons who stay in the park illegally has increased considerably; the number of recorded cases has risen from 0–5 to 40–50. We were not able to

determine whether this was connected with the refugee problem in Zaire or with something else.

Joint patrols with the Zairean rangers have been discontinued. Obviously IGCP did not succeed in organizing them. The Ugandan rangers occasionally visit their Zairean colleagues in their camp; they hardly have any contact with their Rwandan colleagues.

Very soon after Klaus-Jürgen Sucker's death 2 years ago, CARE finished the pipeline at Mt. Gahinga, after they had postponed it again and again. Moreover, CARE continued to erect a part of the wall at the park boundary, and constructed the road from Kisoro to the park entrance. CARE handed the money for the road construction over to *Uganda National Parks*, and from this money 300 workers from the local population were employed. Heavy machinery was only used at the end of the construction. (*We are really sorry that we have represented this differently in our last issue; the information came from a source that otherwise has proved reliable, but obviously in this case it was not.*)

Since Klaus-Jürgen Sucker's death, the rangers have been given no equipment other than gum boots. Once again, they were promised more equipment by May. In the meantime, some equipment has been provided by tourists. No slides, videos or similar equipment is available for the education officer's work. CARE has even taken away the only project vehicle, a motorbike. Park staff are therefore completely without transport, which particularly restricts the control of illegal activities. The training of new rangers has been limited to 1 month which is far too short. In January 1995, CARE took over the payment of top-ups and since then the rangers have been paid on time every month. However, the employees of the IGCP (gorilla guides and trackers) receive their top-ups very irregularly.

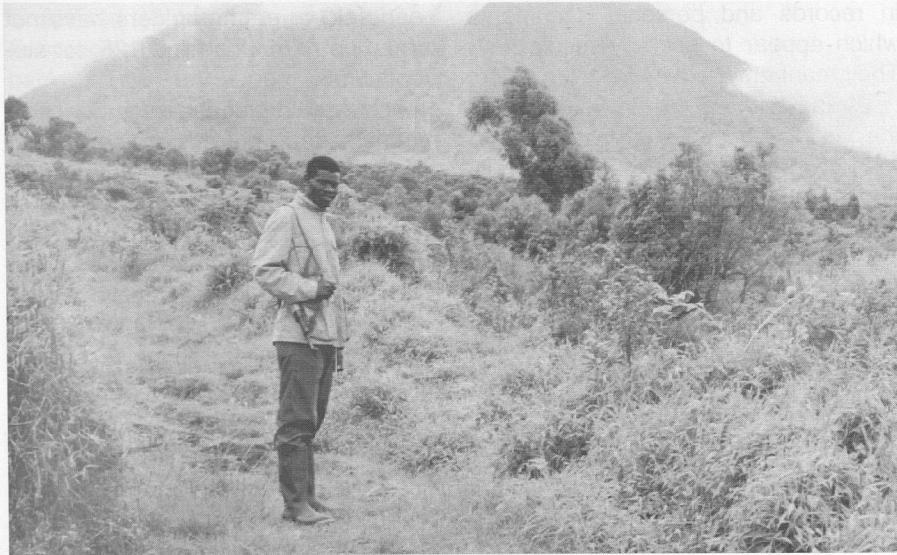


Shooting in Ruhija with Ignatius Achoka (left)

Photo: Angela Meder



UGANDA



Sheba Hanyurwa demonstrates how far the gorillas have entered into zone 2 of Mgahinga National Park.

Photo: Angela Meder

The reforestation of zone 2 of the national park is not monitored and the planted trees are not looked after. It appears that the area is regenerating slowly; buffaloes and forest hogs appear there much more often now and even the gorillas spend a lot of their time in zone 2.

Gorilla Tourism

While we were in Buhoma, there were usually more tourists waiting in front of the national park office than were able to visit the two groups of gorillas (only six visitors are allowed per group). Tourists without a permit tried in many ways to get on a tour. In Mgahinga, where only one group of gorillas can be visited, the tours are not completely booked. To visit the Virunga gorillas, many tourists also travel from Kisoro to Djomba in Zaire or, to Rwanda.

At the Mgahinga National Park, a local community has built several simple huts and additional buildings for tourists in front of the park entrance. These buildings are similar to those in Buhoma. The camp is managed by a committee consisting exclusively of

community members and the profit goes to the community.

According to the rangers' notes, two gorilla groups totalling 19 animals stayed in the park in January, and in February there were 15 animals in three groups. That is considerably fewer for this time of year than in former years. Nobody could explain this. The habituated gorilla group has nine members; it now spends much more time in Uganda than in Zaire.

According to the management plan of Bwindi National Park, a certain percentage of the profit generated by gorilla tourism is to go to the communities. This amounted to a total of approximately \$ 15,000 in the pilot phase from April 1993 to June 1994. As of July 1994, communities are to receive 12% of all the park's income.

The DTC Project

The *Development Through Conservation* project was initiated by Thomas Butynski. It aims to combine nature conservation with developmental aid. DTC is carried out exclusively by CARE. Their employees were not per-

mitted to talk to us, so we did not receive information from the project. The ethnobotanical gardens in Buhoma and Ruhija are not looked after any more and have therefore completely deteriorated. We were not able to determine the reason for this. 1,000 bamboo rhizomes were distributed to farmers in Mgahinga. Apparently this fulfilled their need, because bamboo is cut illegally very rarely now in that park. The park's employees could not tell us whether the local people were permitted to use the park's resources or not.

The second phase of the DTC program is now finished and in August 1995, CARE submitted a proposal for the third phase. In this proposal, they suggest many activities which should already have been completed in the second phase. According to Eric Edroma, USAID has assured the funding for the next phase.

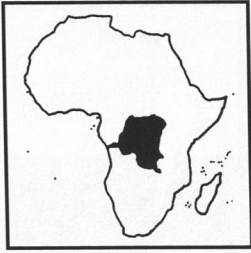
Research

The ITFC (*Institute of Tropical Forest Conservation*) which was founded by Thomas Butynski has had a new Director since July 1995: Simon Jennings. The institute is now supported only by WWF and the budget is rather modest. About 20 persons are employed by the ITFC, and a few students are working on research projects.

Rehabilitation of Chimpanzees

During our stay in Kampala, we visited Wilhelm Möller. He told us about the young chimpanzees that had been confiscated and nursed at Entebbe Zoo and recently were transported to an island in Lake Edward within the Queen Elizabeth National Park to be rehabilitated there. After having been released to the wild, two of them drowned, but the others are doing fine. Many tourists have already visited the chimpanzee island, and this new attraction is now bringing in more profit than expected.

Angela Meder



ZAIRE

The Situation in Uganda, Rwanda and Zaire – Impressions from a Journey

The aim of my trip through the countries Uganda, Rwanda and Zaire from 9 February to 3 April 1996 was to gain topical information for a travel-guide. In order to be independent from the catastrophic transport system in Zaire, I mainly travelled by bicycle.

Mgahinga National Park

In the Mgahinga Gorilla National Park I climbed the volcano Mt. Muhavura (4,127 m) and thereby got an excellent impression of the situation in the park. When I drove up by bike I was accompanied by more than 100 people (mostly children) from the nearby villages, but as soon as I had entered the park, they stayed behind the hedge that marks the park boundary, so I continued the climb to the Muhavura base camp calmly and alone. I regard this as a clear evidence for the good acceptance of the park boundaries by the surrounding communities.

The guidance up the Muhavura to the peak was competent and pleasant; a regular radio contact to the national park office in Kisoro was maintained. While passing through zone 2, we saw several buffaloes from a distance. Beneath the Muhavura peak, we saw the skeleton of a Rwandan refugee from the 1991/92 war, the first of several similar finds in Rwanda itself. The gorilla group Nyakagezi that had been habituated in Zaire spent nearly the whole months of February and March in Mgahinga Park, mostly in zone 2. For the most part, the gorilla visits were completely booked.

The New Rwanda

I crossed the border to Rwanda via Cyanika largely without problems. There are strikingly obtrusive border controls and the military guards at the few road blocks are strongly interested

in records and personal documents which appear to be "spy-suspicious". Their manners are reserved, but polite.

Already during the first kilometers, the visitor gets an impression of the "new Rwanda". Many little villages still appear deserted, and war signs are frequently visible. The percentage of Ugandan vehicles in Rwanda is remarkably high – evidence for the origin of many "new Rwandans". In fact more soldiers and officials now speak English, but still they are very few. The road system is excellent, and the security is generally good. Only in the border district to Zaire, the situation frequently changes and is critical to some extent. The roads to Kibuye along Lake Kivu supposedly contain land mines and are dangerous. In the communities near the border, curfews still exist. However, the infiltration of Rwandan (Hutu) Interahamwe militia and land mine explosions have decreased. The price for this security is the presence of many (Tutsi) soldiers, especially after sunset.

Ruhengeri, the starting point for visits to the Parc National des Volcans, is very lively and largely rebuilt. Signs of war are hardly found. The gorilla visits in the national park have to be booked at the ORTPN office in Kigali, but this can also be done by phone at the park headquarters in Kinigi. Gorilla tours start at the prefecture in Ruhengeri. It is often possible to get a permit there on short notice if not all permits have

been sold or permit holders have not turned up. The price is \$ 126, for students \$ 95.

The park headquarters have been reconstructed, but except for a telephone and a visitors' book, the offices rarely contain anything because of looting in the past. The Volcano Veterinary Center, which is located nearby, was not busy, but intact. Meanwhile, the park is considered cleared of land mines, but patrolling park rangers and tourist groups are still guarded by armed soldiers as a protection against poachers and militiamen who enter from Zaire.

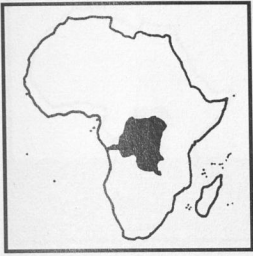
At the end of February, the Suza group was the only habituated gorilla group that lived on the Rwandan side of Mt. Karisimbi permanently; the Sabinyo group often travelled across the border to Zaire, and the groups 9, 11 and 13 have already settled on the Zairean side of the Virunga Volcanoes for some time.

My visit to the Suza group gave me a vague impression of the situation in the park. It was striking how many traces and paths – presumably left by poachers and wood-collectors – passed through the lower altitude zone of the park adjacent to cultivated land. We also found cattle feces and tracks sporadically. While climbing, we collected several snares. At 3,300 m, after 4 hours of climbing, we approached the Suza group which had been localized by radio coordination. It

Gorillas in Rwanda

The work of the *Morris Animal Foundation* and the *Dian Fossey Gorilla Fund* in Rwanda continues despite the political uncertainty. Since the beginning of this year, Karisoke has a new director: Liz Williamson. She has already worked with Gorillas in several countries before.

Jonathan Sleemann, the head of the Volcano Veterinary Center in Kinigi, had to provide medical treatment to several gorillas. Three members of the Suza group had been caught in snares whereby a four-year-old animal had lost its hand.

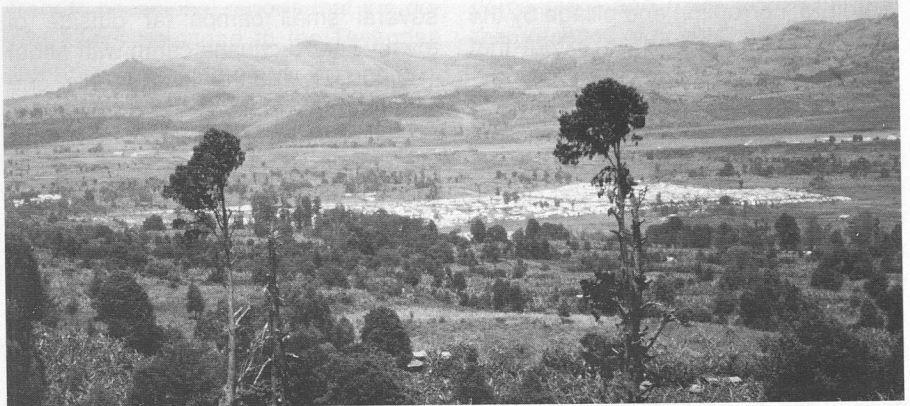


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comprised 28 members at the end of February, among them three silverbacks. Two very young animals had been caught in snares at the beginning of this year and were injured or even mutilated (box on page 10).

The Suza group seemed to be nervous and in spite of our great cautiousness and very good guidance, the silverbacks repeatedly showed unmistakable threat displays. Obviously, this group is often visited by very large tourist groups, particularly as it is the only habituated group available in Rwanda on many days. On the day before our visit, for example, a group of 13 tourists was taken there, after the Sabinio group had crossed the border to Zaire during the night and therefore capacities were missing. During our visit, we were not accompanied by soldiers to our surprise and the rangers did not carry arms.

The situation in Akagera National Park, however, is disastrous. Most of the wildlife is considered to have been killed, and large cattle herds – introduced by former refugees that returned from Uganda – compete for food with the remaining wild animals. Recently,



The refugee camp Kachusha near the airport of Bukavu

Photo: Christoph Lübbert

the northern part of the Akagera National Park has been de-gazetted.

Gisenyi looks deserted, nearly like a ghost town. However, most of the banks and hotels are working again. When crossing the border to Goma, I experienced protracted controls; every cubic millimeter of my luggage was searched. Like in other places, the officials tried to bargain to get money for a visa that is not required.

At the border, the first UNHCR shuttle buses are passing. They transfer

Hutu refugees daily from the camps at Goma to Rwanda, but they are largely empty. According to UNHCR, 40 to 60 refugees return from Zaire to Rwanda every day, and at the same time about 100 Tutsi who had formerly fled to Uganda immigrate back to Rwanda daily. Most of them come from the Masisi region west of Goma, where Interahamwe militia started with ethnic cleansing.

Refugees and Gorillas in Zaire

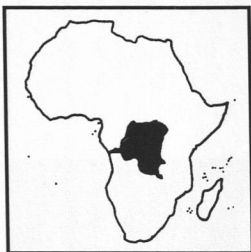
On the Zairean side of the border, similar detailed checks are carried out. Tremendous sums of money are requested especially from journalists and NGO staff. Goma itself is neglected completely and decayed. Everyday life, however, abounds with vitality, and surprisingly almost all means of transport and accommodation of the past are available. The condition of the hotels is often appalling; \$ 30 can be charged for a rotten room without light.

Paradoxically, the establishment of refugee camps has resulted in a stimulation of the economy; apart from the foreign currency that the numerous NGO and UN staff members crowding this region bring into Goma, businesses with the refugees contribute a great deal to this. Zairean officials and soldiers hardly receive any money;



Eucalypt wood that was cut for the Rwandan refugees east of the Kahuzi-Biega National Park

Photo: Christoph Lübbert



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therefore, corruption and pillage by the soldiers have reached an extent that can hardly be imagined. As the payment of the soldiers is frequently assumed by citizens, wealthy merchants and also by the UNHCR, extensive lootings like those in 1992/1993 did not take place. The security situation in Goma is nevertheless bad. The nights are dangerous because of pillaging soldiers and juvenile bands. In addition, the Rwandan militia commit terror acts close to the border to deter refugees who would like to return and thereby destabilize the "new" Rwanda.

With the boat of the Bralima brewery I crossed Lake Kivu to Bukavu, to visit the Zairean-German cooperative project for the Kahuzi-Biega National Park. Bukavu is in a similarly decayed state as Goma, but the visitor feels much more secure. In spite of the refugees, everyday life there seems normal, and the big companies Bralima and Pharmakina are working as usual.

About 300,000 refugees are living near Bukavu, according to UNHCR, in

several small camps far outside of town. The Kachusha camp with about 100,000 Rwandans is the only one close to the Kahuzi-Biega Park.

Since financial support was fully re-established at the beginning of 1995, the German Technical Aid (GTZ) within the project "Integrated Conservation Eastern Zaire" (PNKB/GTZ) is working effectively again. As a result of the committed efforts of the project personnel, it was possible to stop the negative impact of the refugees and militias in the park. The park rangers are paid regularly by the GTZ; this is the basis for their motivated and excellent work. During the 5 days that I stayed in the Kahuzi-Biega Park, the good impression of the conservation activities was strengthened, and on each of our trips to Kasirusiru and to Mt. Biega, Kalonge, Tshibati and Mt. Kahuzi, we met committed park rangers on patrols.

Close to the station Tshivanga at the park entrance, a new visitor center has been constructed, and comfortable modern bungalows for visitors are planned. The visitors who are to use this accommodation, however, are still missing because of the refugees.

The most attractive of the four habituated gorilla groups at the moment is the Nindja group which I also visited. After the killing of the famous Maheshe, which had been arranged by pygmies in commission of a businessman from Kavumu in 1993, the leadership of the rest of the group was taken over by the patriarch's son, Maheshe II.

I returned to Goma in a small airplane and from there by bicycle on the Rutshuru road to Tongo in the southern sector of the Virunga National Park. *(The southern and the middle sector of this park, including Rwindi, were under the control of rebels in May and conservation work was no longer possible.)*

More than 700,000 refugees are living around Goma, the vast majority in the three camps Kibumba, Katale and

Kahindo, which are all situated along the Goma-Rutshuru road in direct contact to the park. In the beginning of the refugee disaster, about 15% of the forest in the park was felled to meet the demand for wood and charcoal, according to the park administration, and a much larger part is heavily disturbed and cleared. Meanwhile, eucalypt wood, which is cut in the surroundings, is provided to the camp inhabitants by humanitarian aid organizations. The deforestation of cultivated land in the Kivu region is enormous. During May, the cutting of wood in the Virunga National Park increased again.

The Kibumba camp spreads up the slopes of Mt. Karisimbi and therefore comes close to the mountain gorilla area. North of Rumangabo, the Katale and Kahindo camps lie adjacent to the Virunga National Park. On my 17 km trip from Kalengara to Tongo through volcanic forest, the extreme pressure on the park's forests by the refugees was evident. Crowds of people walk on the dirt road to Tongo in their search for water, wood and bush meat.

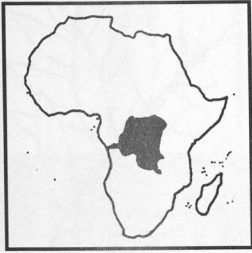
The Sokomutu Lodge in Tongo is in excellent condition. I was the first visitor for many weeks, and when I arrived in the afternoon, the park rangers were a little drunk. But on the following day, the guidance to the habituated chimpanzees was competent, and I felt that the enthusiasm for the animals is still present, in spite of insufficient wages and the powerlessness in view of the large number of refugees.

I had the impression that the situation in the Virunga Park could also be kept under better control if the rangers received acceptable wages and the number of rangers were increased. The dimension of professionally organized poaching in the savanna areas near Rwindi and Ishango at Lake Edward is frightening. According to information of the GTZ, in the past 2 years alone, about 11,000 hippos have been shot.



Sign of the new visitor's center at the station Tshivanga

Photo: Christoph Lübbert



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At the end of my trip to Zaire, I visited the mountain gorilla station in Djomba to inquire about the situation there, especially after the killing of the gorillas in August 1995. Immediately after the killing, no tourists were allowed to visit the habituated gorilla groups, but soon afterwards, gorilla tourism continued as usual. In March, Djomba was visited frequently and could be reached quickly and safely from Uganda via the little frontier crossing Bunagana. The entry formalities were minimal. In Bunagana I met the only friendly and cooperative soldiers and custom officers of my whole Zaire journey.

To prevent a repetition of the gorilla killings of 1995, special park ranger teams guard the habituated gorilla groups all day and night (see also the following article). The group of the silverback Salama, who had also been killed, had been taken over by a silverback from the same group.

In spite of the enormous pressure on the Zairean section of the Virunga Volcanoes, the situation seems to have stabilized somehow. Simple means like new uniforms and better, regular wages could help the park rangers, who are obviously still motivated. The employment of more rangers could improve the protection of the park boundaries, as was the case with the Kahuzi-Biega Park.

Christoph Lübbert

Poachers Arrested

In our last issue, we reported that three mountain gorillas had been killed in Zaire in August 1995. In December the IPPL (*International Primate Protection League*) reported that 13 suspects had been arrested. Six of them had been sentenced to 15 and 20 years of imprisonment respectively or an alternative fine of \$ 25,000. The rest of the suspects had been released. One of the convicts is a park ranger. The arrested persons were Zaireans, con-

trary to occasional reports that the gorilla killers belonged to the Rwandan Interahamwe.

According to the poachers, somebody who was driving a UN vehicle and looking for gold had asked them for a gorilla baby. Thereupon, they killed three adult mountain gorillas and captured an infant which they hid behind a clinic in Bunagana. However, the animal escaped and was found later. Meanwhile it has been integrated into the Rugabo group and is doing fine so far. The doctor who led the clinic reportedly fled to Rwanda.

According to another news release by IPPL, a key suspect for the killing of four gorillas in Bwindi in March 1995 had tried to hide in Zaire. The man had fled there but eventually was arrested on October 21 for illegal entry into Zaire. On 29 March, after serving his sentence in the Rumangabo jail, he was arrested when being brought to the Ugandan border. When he appeared before a court in Kabale District in May, he pleaded not guilty.

To avoid further gorilla killings in Zaire, IGCP and IZCN organized 24-hour patrols of the habituated gorilla groups in the Zairean part of the Virunga Volcanoes. The rangers received radios and other field equipment. They follow the gorillas constantly and camp near them. However, the quality of their weapons is much poorer than those of the militias.

Report on the Ongoing Research at the Kahuzi-Biega National Park

During the last couple of months, we have been continuing our studies on gorillas and chimpanzees in Kasirusiru, Tshibati and Tshivanga as was described in the last *Gorilla Journal* issue. The two gorilla groups that we observed at the above-mentioned locations are already beginning to be-

come more and more accustomed to the presence of people. Meanwhile we can approach the animals at a distance of 5–6 m in open space and at about 10 m in dense vegetation.

The routes that the gorillas take while foraging obviously follow the paths of elephants, as the latter create small clearings by knocking down trees; in these places, plants start to grow that are preferred by the gorillas. Chimpanzees forage in small groups, but if there is abundant fruit, particularly figs, several groups are feeding together. Fecal analyses are still going on, and the results will be probably available by the end of the year.

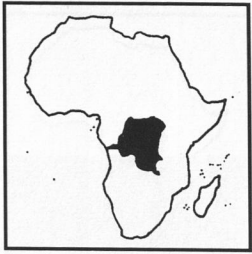
We observed that elephants, gorillas and other animals cross the road which passes through the park while foraging. Therefore, we assume that the traffic on this road does not present any particular barrier between both parts of the park. In addition, we observed that habituated gorilla families forage and feed by the roadside. We hope to be able to compare the frequency of the animal movement to the number of cars, which are registered in Tshivanga, by the end of this year.

Altogether, our work is making good progress. A large forested area near the corridor that connects the old and the new part of the park has been severely destructed. However, the responsible authorities are trying to solve the conflicts which have led to this destruction through negotiations with the persons concerned. We hope that the Zairean Government will contribute to the clarification of the situation.

Mbake Sivha

Continuation of the Grauer's Gorilla Census

This census which is projected for a three year period was continued in 1995. One project team worked for 4 months near Kasese–Kibereketa.



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The researchers found that the gorilla density was substantially lower than in the Kahuzi-Biega National Park.

As of 1 January 1996, Jefferson Hall resigned as project Director, but the project will be continued. Two inventories are planned for this year. One of them was conducted from March to May in Itombwe (see also the following article by Thomas Butynski), the other one is presently under way; it covers the old part of the Kahuzi-Biega National Park. In that area, several censuses have already been carried out (the latest in 1990), and thus it will be possible to evaluate the development of the gorilla population over a long period of time.

The Itombwe Mountains, Eastern Zaire

Few people have ever heard of the Itombwe Mountains. Yet, this massif supports the largest area of montane forest and bamboo along the Albertine (Western) Rift Valley, as well as an extremely rich diversity of plant and animal species, many of which are rare, poorly known and endemic to the region. Although Itombwe is obviously of considerable conservation importance, it is a relatively unstudied area. This is a reflection of its large size, isolation and the problems of gaining access (see map on page 6).

From February to June, 1996, a team of biologists conducted a survey of the larger vertebrates of Itombwe, with a focus on assessing the distribution and conservation status of the gorilla and chimpanzee. This survey was lead by Omari Ilambu and funded by the *Wildlife Conservation Society* (WCS). I joined the survey team in April for 1 month of field work during which I focused on the avifauna and primates, particularly the nocturnal primates. My participation in this survey was supported by *Berggorilla & Re-*

genwald Direkthilfe and *Zoo Atlanta*. Also joining the team at this time were John Hart of WCS, Upoki Agenonga of Kisangani University, and Bagurubumwe Ndera of the *Institut Zairois pour la Conservation de la Nature* (IZCN). We are now in the process of analyzing the data and writing up the results. Once this is completed, some of our more interesting findings as well as an overview of the conservation situation at Itombwe will be presented in *Gorilla Journal*. Here I provide background information on Itombwe and a brief review of what was known about the region and its wildlife prior to this survey.

The Itombwe Mountains (1,500 to 3,475 m) lie on the western side of the Albertine Rift just off the northwest corner of Lake Tanganyika in eastern Zaire. About 16,200 km² of Itombwe is above 1,500 m in elevation. Within this area there are roughly 8,000 km² of montane forest, 1,500 km² of bamboo forest and 500 km² of montane gallery forest. Much of the remainder of Itombwe is highland grassland.

Because of its size, varied topography and close proximity to Lake Tanganyika, the climate over Itombwe varies greatly. Rainfall ranges from about 1,200 mm in the southeast to 3,000 mm in the northwest.

The vast interior of Itombwe is largely uninhabited and the few villages that do exist are along roads and near the edges of the forest. Although the soils are poor for agriculture, this activity, together with cattle grazing and mining, continues to expand and damage the forest.

Birds are the only taxon which have received much attention at Itombwe. Even this group, however, is poorly known in terms of distribution and conservation status. Virtually all of what we know concerning the birds of Itombwe comes from Prigogine's work of the 1950s and early 1960s during which he recorded 565 species.

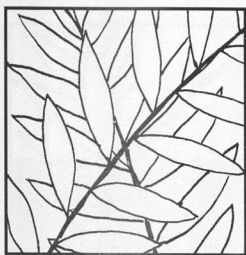
Itombwe is, without doubt, the single richest forest for its birds in Africa. With 83 montane forest species, it holds about half of the montane forest bird species in Africa. Of the 36 montane and transition forest bird species and subspecies endemic to the Albertine Rift, 32 (89%) occur in Itombwe. Two species of bird are known only from this forest; the Congo bay owl and Schouteden's swift. The owl is known only from one specimen obtained 45 years ago. In addition, five Red Data Book birds occur and nine species which are of special conservation concern. At this time, Itombwe is considered "pre-eminent amongst the forests of Africa for its avifauna" according to Wilson and Catsis and is recognized as Continental Africa's most important forest for bird conservation.

The herpetofauna of Itombwe is endemic-rich. Of the 21 species of amphibians recorded above 1,500 m, at least six are endemic to this forest.

No detailed mammal surveys have been conducted in Itombwe. Wilson and Catsis 1990 compiled a list of 52 mammal species based upon a review of the literature, reports by the local people, and their own observations during a two-week survey. Given the size, location and habitat diversity of Itombwe, it probably harbours well over 100 species of mammals. The present list contains two endemic species of shrews (both of which are known from but a single specimen) and seven species of primates, including the eastern lowland gorilla and the chimpanzee. The type specimen of the eastern lowland gorilla was obtained from Itombwe in 1908 but the species has never been studied here at the southern extreme of its range.

Itombwe is one of the key sites for conservation in Africa, yet no part of it is officially protected. As such, Itombwe is of very high priority in the protected area needs of the continent.

Thomas Butynski



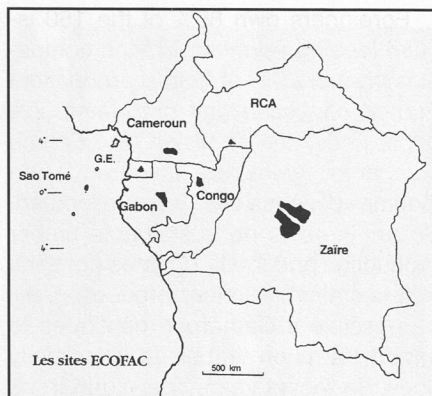
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ECOFAC

ECOFAC is an acronym of "Conservation and Rational Utilization of Forest Ecosystems in Central Africa". The project started in March 1992 and is being funded by the EU through the European Development Fund. It currently focuses on six more or less effectively protected areas in six countries. It aims to safeguard the protection of these areas while at the same time promoting sustainable natural resource use by the local populations. The Zaire component (in the Salonga National Park) remains suspended because the EU stopped all activities in this country in September 1991.

Collaboration with the people who live in the surroundings of the reserves is a central element in the program. In addition to classical activities such as park infrastructure development, ranger training, research (for example gorilla surveys) and the development of management plans, it therefore organizes various activities in the park and its surroundings. Principal among these are the development of tourism, the promotion of alternatives to commercial hunting, collaboration with logging companies for the development of sustainable logging techniques, and assistance in the establishment of communal forests.

Species surveys are being conducted in the forests in order to get a clearer idea of relative abundance and biodiversity. Ethno-zoological and anthropological studies examining the situation of the local human populations are nearing completion and topographic and vegetation mapping of all the sites has been carried out. Together with the Nouabalé-Ndoki National Park, ECOFAC publishes the newsletter *Canopée* (in French) four times per year. This journal is a forum for the exchange of ideas and the circulation of interesting news. ECOFAC is coordinated by Conrad Aveling in



Brazzaville. In the 1980s, he had worked on the mountain gorillas in Virunga National Park, Zaire, in a project of the *Zoologische Gesellschaft Frankfurt* (Zoological Society of Frankfurt).

Odzala Complex, northwestern Congo (Odzala National Park/Lekoli-Pandaka Reserve/Mboko Hunting Reserve). There are good opportunities to observe gorillas in clearings of this area. In collaboration with the local population, ECOFAC promotes the development of tourism, has created a center for developing and promoting improved agricultural techniques, bee keeping, cane rat breeding and fish ponds. Studies on subsistence hunting by the local population are also being conducted (even gorillas are hunted). Road improvement in the area undertaken by the project also contributes to the area's development.

Dja Reserve, southern Cameroon. This area is described in detail on page 17. ECOFAC is trying to provide the people who live in the reserve with alternative revenue-generating activities to commercial hunting. Other activities supported by the program are the introduction of agroforestry techniques, studies on the utilization of forest fruits and on hunting, and the stabilization of forest blocks in the surroundings of the reserve.

Lopé Reserve, Central Gabon. We reported about this reserve in *Gorilla Journal* 11. Here ECOFAC supports

the development of tourism, studies on ecology, archaeology and fishery. Two field guides on the birds and plants of the reserve have been published by the program.

Monte Alen National Park, Central Equatorial Guinea. This park lies also within the gorillas' distribution area. Here ECOFAC supports tourism development, cane rat and snail breeding as well as studies on biodiversity. It is assisting the development of village shops and is building a training center.

Obo National Park, Sao Tomé. ECOFAC has an advisory role in this park which is severely threatened by deforestation. The program gives advice on forestry legislation, ranger training, agroforestry, reforestation, apiculture and the development of ecotourism. In addition, studies on the endangered sea turtles and corals are supported.

N'Gotto Forest, southwestern Central African Republic. It has been damaged severely by logging and commercial hunting. ECOFAC is funding a study on hunting and the development of a forestry management plan. Together with a logging company it is working on a manual for sustainable logging practices. A fully protected core area is to be created. In the buffer zone around the forest the program undertakes development activities such as school improvement and medical care for the villagers.

Rain Forests and Gorillas in Cameroon and Nigeria

Many thousands of years ago, when Europe was covered by glaciers, rain forest in Africa was restricted to a few forest islands. Towards the end of the last ice age, these refugia expanded again. The Central African rain forest developed from forest islands in eastern Zaire, Gabon/Cameroon. Today, an especially high number of endemic



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animal and plant species occur in these core areas. Cameroon is among those African countries housing the greatest number of species. Among African countries, it ranks fourth in the number of mammals and flowering plants and second in the number of butterfly species and endemic amphibians. Mt. Cameroon (4,095 m) is one of Africa's most interesting and most severely threatened regions.

Cameroon's Forests

Cameroon became a German colony in 1884. At about that time, the exploitation of timber began, in addition to slash-and-burn clearing for plantations, mainly for the cultivation of rubber. However, the volume of timber exports remained small during the country's colonial period, due to problems of transportation.

The FAO estimated that in 1990, 43.7% of Cameroon's surface was still covered by forests. However, satellite pictures showed as early as 1985 that rain forest cover was only 33.4%. In the 1980s, 0.5 to 1% of the forest area was destroyed annually. Slash-and-burn cultivation represents the greatest threat to the rain forests. Between 1975 and 1985, timber exploitation increased from 1.0 to 2.1 million m³ per year; in 1990 it reached 2.5 million m³. In addition, local people cut a lot of firewood. At the beginning of the 1980s, firewood accounted for 86% of wood consumption in Cameroon. It is estimated that 10 million m³ of firewood were brought to market in 1986 compared to 2.1 million m³ of roundwood (unprocessed logs).

Legal logging concessions comprise approximately 80,000 km², more than half of the usable forest area. On average, 2,720 km² were selectively logged every year from 1981 to 1985. Of this, 750 km² were subsequently cleared completely. This means that 96% of cleared areas lie within the areas utilised by logging companies.

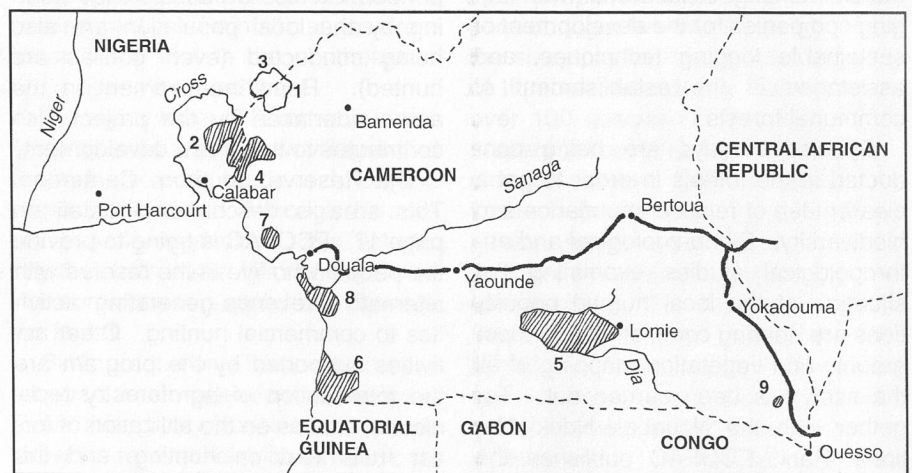
Foreigners own 86% of the 150 issued logging permits. French companies control 70% of timber production. France cancelled half of Cameroon's debts under the provision that French companies would be favoured when logging concessions were allocated. So far there is no sustainable timber production and the ITTO does not think that sustainable timber production will be possible if Cameroon continues to export as much timber as it currently does. In recent years, the World Bank has been promoting sustainability in the use of Cameroon's forests, but the government wants to increase the income of the Treasury faster. However, of the 113 billion Francs CFA earned by timber exports in 1993, Cameroon received only 2 billion in taxes.

In the 1980s, annual timber exports ranged between 0.5 and 0.7 million m³. The government decided to compensate for decreased profits from the export of oil, coffee and cocoa through an increase in the export of timber. In 1991/92, timber accounted for 11.97% of all exports; this increased to 19.31% in 1993/94. In 1990, Cameroon expressed the goal of becoming Africa's

biggest exporter of timber in the year 2000, when it is aiming for exports of 4 million m³ of timber per year. However, by 1993, with just over 1 million m³, it had already become the top exporter in Africa and ranked sixth in the world. 80% of exported timber is unprocessed roundwood, of which 53% is Ayous (*Triplochiton scleroxylon*) and Sapelli (*Entandrophragma cylindricum*). France, Italy, Spain, Portugal, Germany and Japan are the main importers of Cameroonian timber.

Logging companies usually do not work very efficiently and they do not fulfill their social responsibilities towards the local people. Up to 75% of timber is lost in the process of cutting and processing logs. In general, only very few local workers are employed and they are badly paid. The local population hardly profits from logging. Frequently, this is the cause for strong protests which are then suppressed by armed forces. Lately, a movement of eco-guerillas has arisen, who attack and burn timber lorries.

Approximately 30,000 to 50,000 Baka pygmies live in southeastern Cameroon. 4,000 Bakola or Bagyeli



Forest conservation areas in Cameroon and eastern Nigeria: 1. Takamanda, 2. Cross River (Oban), 3. Cross River (Okwangwo), 4. Korup, 5. Dja, 6. Campo, 7. Cameroon Mountain, 8. Douala-Edea, 9. Lac Lobéké. Strong line: road for timber transport from Congo and the CAR



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pygmies live in the south and about 1,000 of the Moindjan or Tikar close to the northern border of the forest. These people lose their habitat when the forests are destroyed. However, there are hardly any pygmies left in Cameroon who live in the forest in the traditional way.

Other Exploitation of the Forest

A drug taken for problems of the prostate gland is manufactured from the bark of the tree *Prunus africana*. 63% of the raw material comes from Cameroon. Every year, 35,000 trees are stripped of their bark for this purpose. The most important exporter is a French company. To safeguard the monopoly of this company, the Cameroonian government banned the export of unprocessed bark.

Local populations – Baka and Bantu – get cooking oil from the seed of the Moabi tree (*Baillonella toxisperma*). It is sold in the markets and used by many people. However, logging companies also cut Moabi timber and this species has already become scarce in some parts of Cameroon. Because of its significance to the local economy, Moabi's inclusion in Appendix II of CITES was requested some years ago, but without success.

Protected Areas

Cameroon has seven national parks. Korup National Park, with an area of 1,259 km², is the only one located in rain forest. In addition, the forest is protected in several reserves: Campo (2,712 km²), Dja (5,260 km²), Douala-Edea (1,600 km²) and Lac Lobéké (430 km²). Gorillas occur in Campo and Dja, and some live in the Takamanda Reserve (676 km²), but this reserve is not recognized by the IUCN.

The largest protected area in Cameroon is Dja Reserve in the south of the country which contains dense rain forest. It is a Biosphere Reserve and a World Heritage Site. However, human



A poached gorilla is butchered.

Photo: WSPA/Karl Ammann

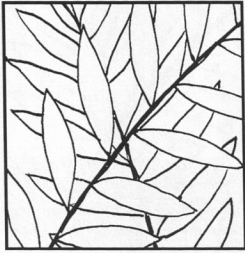
influence has already changed this area considerably, mainly in the north and east. In the border zone of the reserve, wood is cut; professional hunting takes place even in the interior of the protected area. The roads in the border zone of the reserve, which are being maintained by the logging companies, allow transportation of great quantities of bush meat to the towns. Bush meat is an important source of income. Gorillas are frequently hunted for their meat, and the infants are often sold. In addition, farmers kill gorillas as a potential threat to their crops.

Numerous studies have been conducted on the animals and plants in the Dja Reserve. Liz Williamson studied elephants and primates in 1994/95. She found that elephants and gorillas avoid villages; only rarely do they approach at a distance of less than 15 to 25 km. A large number of gorillas occur in swamp forest, probably because hunting pressure is less severe in this habitat. Surveys in Gabon and Congo have shown a similar situation.

Logging is customary in many protected areas of Cameroon. For example, large areas of the Douala-Edea and the Campo Reserve have been destroyed through logging. A few years ago a concession for a part of Campo was extended by 25 years.

In the southeastern corner of Cameroon three conservation areas are proposed (Nki, Boumba Bek and Lac Lobéké). Mainly the WWF is working for this goal. WCS supports the conservation of the Lobéké Forest Reserve (2,000 km²), around the Lac Lobéké Reserve. These reserves shall border the Nouabalé-Ndoki National Park in Congo and the Dzanga-Sangha Conservation Area in the Central African Republic.

One of the best known national parks in Cameroon is the severely threatened Korup National Park on the Nigerian border. In the 1980s, WWF-UK carried out an analysis of the economic values of various forms of utilization in Korup and the adjacent Cross River National Park in Nigeria. In



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1989, a cost-benefit analysis of land use was undertaken for the Korup National Park. The benefits of sustainable use (forest use, tourism, watershed protection, maintenance of soil fertility, etc.) were estimated to be considerably higher than those under a commercial (i.e. non-sustainable) regime. Subsequently, a conservation project was set up, supported by WWF, GTZ (*Gesellschaft für Technische Zusammenarbeit* – German Technical Aid), ODA (*Overseas Development Agency*), WCS and the EU.

The goal of the project is the resettlement of approximately 750 people who live in the park. To date, they have been killing about 12,000 animals a year. Moreover, the project wants to convince the 30,000 people resident in the park buffer zone, which covers an area of 3,200 km², to forego hunting in the park in favour of sustainable cultivation and new sources of income. Roads, schools, hospitals and other facilities have been built. However, the realisation of the aims of the Korup project turned out to be extremely difficult. Tourism hardly generates any income at all because the animals have been hunted out and sightings are rare. Rangers are not able to patrol the populated parts of the park because the residents are hostile towards them; for this reason, it is also not possible to control the bush meat trade.

Remnants of Forests in Nigeria

According to an analysis using satellite photos, 4.2% of Nigeria was covered by tropical rain forest in 1989. In 1897, the rain forests in Nigeria were estimated still to cover 600,000 km². By 1989, rain forest cover had decreased to 38,620 km². (However, FAO estimated 140,750 km² in 1990.) In 1989, approximately 4,000 km² were destroyed, according to one estimate, or 1,190 km² according to another.

As early as 1976, the Nigerian government banned the export of unpro-

cessed or semi-processed timber. However, this trade never stopped completely. Between 1975 and 1985, logging increased from 2.2 to 5.6 million m³ every year and it stayed at this level until 1990. In 1990, Nigeria imported timber products at the value of about \$ 33 million and exported timber products at a value of only \$ 1.68 million. The demand for timber products in the country itself is very high because of its high population density; by the year 2000 it is estimated to be 10 million m³ (excluding poles and firewood!). Hunting and the collection of secondary forest products also severely threatens the remaining forest islands. Large areas of forest are cleared mainly for fields and plantations of oil palms and other crops. As Nigeria gets more than 80% of its foreign currency receipts from the export of oil, the country does not depend on timber export.

In the Niger Delta, which is still covered by large areas of forest in spite of extensive clearing by farmers, mangroves are being destroyed and rivers poisoned as a consequence of oil production. Officially, about 2,300 m³ of oil leak every year, but the actual quantity is probably many times this amount. The execution of civil rights activist Ken Saro-Wiwa last year drew the attention of the whole world to the disastrous situation of the environment in this area. While the local population blames the oil companies, especially Shell, of destroying the environment through negligence, Shell blames sabotage for most oil leaks. The population feels exploited because it does not profit from the wealth generated by the oil industry. A large part of the income is going to the bank accounts of the generals, and the rest is not spent for improving infrastructure and education. However, according to a World Bank study, oil production is not the only cause of the environmental problems in the Niger Delta. Population

growth and the building of dams affect the environment at least as badly.

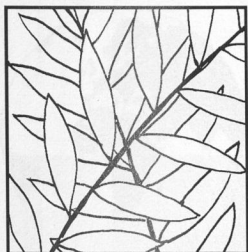
The Northwesternmost Gorillas

There are three national parks in Nigeria, only one of which includes rain forest. This is the Cross River National Park, covering 4,227 km². The northwesternmost gorillas occur in this small mountainous area on the border between Cameroon and Nigeria, more than 350 km from the next population. It is not known for how long these populations have been separated. Gorillas are hunted in Nigeria, as parts of their bodies are used in traditional medicine. Pieces of skin are worn embedded with herbs as a protection against witches and for immunity from all diseases and enemies. Penises are considered a protection against poisoning and bones as aphrodisiacs.

Five small populations of gorillas were found on various mountains in 1987. One of them was separated from the others by a heavily used road. The study estimated the total number of gorillas in Nigeria to be 150; another study in 1990 yielded an estimate of 110. The apes were threatened by hunting for their meat and by the destruction of the forest for cultivation, by firewood collection, and by dry season fires which are started in the grassland and frequently spread to the forest.

Thanks to the activities of the NCF (*Nigerian Conservation Foundation*), the inhabitants of four villages were convinced to stop hunting gorillas. They hoped to find new sources of income in the introduction of gorilla tourism. However, far fewer visitors than expected arrived to view the gorillas.

Between 1987 and 1990, the forest was cleared even further, especially in the surroundings of the villages. The gorillas may have disappeared from one of the five areas where they had been reported previously. In 1991, the Nigerian government set up the Cross River National Park with two parts: the



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Okwangwo Division for the protection of gorillas and the Oban Division bordering Korup Park in Cameroon.

WWF-UK started the Okwangwo project in 1989 with the aim of protecting the park and supporting the sustainable development of the park buffer zone. Nature conservation education was set up and various activities were started in the villages of the buffer zone to introduce new sources of income for the villagers. This led to an improved acceptance of the park and to a decrease in poaching. Currently, a management plan is being developed for the Okwangwo part of the park in cooperation with the Nigerian national park authority. In addition, the Okwangwo project is trying to improve the cultivation techniques of the population.

Only two of those areas where gorillas occur are within the national parks, another one is in the Mbe mountains near the park border. Gorilla poaching increased in the Mbe mountains in the beginning of 1991. Subsequently, the Mbe conservation project was set up, funded by Shell Nigeria.

The fourth gorilla population is isolated in the northwestern part of the Afi River Forest Reserve. Currently, the ecology of the gorillas there is being studied. Logging companies operate in this area, and the gorillas are hunted. The region is threatened even more now by a company that is currently negotiating new logging concessions there including a part of the Afi River Forest Reserve.

The distribution of this population of gorillas extends beyond the Cameroonian border into the Takamanda Reserve, which is known to be inefficiently protected. The number of gorillas there is not known.

Angela Meder

For additional information I am grateful to Conrad Aveling (ECOFAC), Reinhard Behrend (Rettet den Regenwald), John Oates, Ulrich Pfaff (INKOTA) and Bernd Steinhauer-Burkart.

Apes at Risk

Cutting down trees is not the only negative impact of logging companies; their presence also increases hunting pressure on the forest animals. One reason for this is that the companies' employees provide themselves with bush meat. In addition, transport of bush meat is facilitated through the companies' infrastructure; it can easily be taken to the towns where meat is in great demand. Duikers and monkeys are especially sought after. Not even threatened species such as gorillas, chimpanzees, elephants and leopards are spared by the hunters.

In Cameroon and the Central African Republic, commercial hunting has been well organized for years and it is supported by a good network of roads maintained by the logging companies. By now, hunting has reached an alarming degree in these countries. Employees of Cameroonian logging companies often earn an additional income through hunting; pygmies are employed for the hunting of elephants by the companies' agents.

On behalf of the WSPA (*World Society for the Protection of Animals*), photographer Karl Ammann travelled to Congo last year. He observed the logging companies' vehicles en route to Cameroon and interviewed the hunters. Lorries en route to the rain forest take many hunters to the camps. In the opposite direction, they transport great quantities of bush meat, in addition to logs, mainly across the border to Cameroon. Frequently, the bush meat is hung by the side of the roads to attract the attention of passing trucks. It is estimated that approximately 5,700 kg of bush meat reach the markets of the town Ouessou in Congo each week. Ouessou is in the vicinity of a concession run by the logging company CIB, a branch of the German company Hinrich Feldmeyer.

According to an estimate from 1989, 400 to 500 gorillas are killed annually in northern Congo. Young apes clinging to their dead mothers are frequently sold for up to \$ 100 and kept as pets. Such animals often die after a short time; others arrive at orphanages in Congo and Cameroon. The goal of



Head of a young poached gorilla in Cameroon Photo: WSPA/K. Ammann



RAIN FORESTS

these orphanages is to rehabilitate the animals in their natural habitat as soon as they are strong enough (see below).

WSPA initiated a great campaign in the media which has led to international protests against the massive hunting of apes. This has now met with success. The ammunition which is used for hunting apes has been manufactured by only one company in the Congo. In April this firm decided to ban the production of these cartridges for 2 years. Recently, nature conservation organisations achieved another success. The World Bank intended to give Cameroon a loan to improve the road network which would open up large parts of the rain forest. The effects of this project on the environment had not been investigated, although the World Bank requires such studies. After numerous protests, the World Bank recently put the loan on hold.

Conservationist Conrad Aveling is convinced that the survival of wildlife can only be guaranteed in the long term if national institutions are strengthened and their attitude is changed, and if logging companies face up to their responsibilities in terms of wildlife conservation.

Angela Meder

The Konkouati Chimpanzee Refuge – a New Chance for Orphans

A day's trip away from Pointe-Noire (Congo) lies the Konkouati Chimpanzee Refuge. 50 chimpanzee orphans live there. The refuge is managed by Aliette Jamart, a French woman who has been living in the Congo for more than 20 years. She founded the refuge in a protected area of rain forest 10 years ago. Four Congolese co-workers and two voluntary helpers from England support her.

Chimpanzee orphans are usually victims of the bush meat trade. In

Conkouati, most of the orphans live on three mangrove islands in a bay close to the coast. The islands do not offer sufficient food, therefore the animals have to be fed daily. Their main nutrition is "Celeric", a baby food. The employees of the station go on tours from island to island in a boat every morning and in the afternoon, when the apes get fruit in addition to the baby food.

The youngest ones, 6 months to 3 years old, form a group of 13 animals. Many infants still suffer from the shock of being separated from their mothers and they need constant emotional support and physical contact with the caretakers. They do their best to be good substitute mothers.

We spend many hours together in the forest searching for fruits and edible roots. I try to teach the infants but I also learn a lot from them; they are very intelligent, and their instincts lead them to find food,
Aliette Jamart says.

The biggest group of chimpanzees lives on Grand Ile which is almost 1 km

long. This group consists of 19 animals between 4 and 8 years of age. Led by the 8 year old male Yombe, they easily climb into the highest tree tops and build sleeping nests at night. Yombe became the leader of the group despite being disabled: one leg had to be amputated below the knee because of an injury he sustained when he was caught.

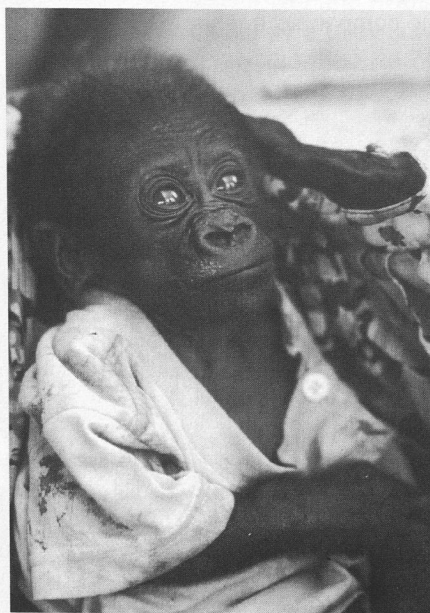
Generally the whole group runs into the water, when the boat carrying the caretakers and the food arrives on the island – holding their arms high to keep as dry as possible. Chimpanzees usually go into water only in emergencies, but the food is so tempting that they lose their fear of water. Yombe is the only one who stays on land. This facilitates the work of the caretakers enormously; as the dominant male he would otherwise attack every human being coming too close. As it is, hanging from a mangrove tree branch, he seems quite happy to accept his food.

Back to the Wild

The station is almost completely occupied, but young chimpanzees continue to be offered for sale in villages and towns or have to pine away under wretched conditions as private pets. Therefore the older chimpanzees are to be released into the Konkouati Reserve this summer. A pontoon bridge will connect the two biggest islands so that the chimpanzee groups can form one social unit to be released into the wild. Primatologist Caroline Tutin and WSPA employees will monitor the release and determine, at a later point, whether the chimpanzees have managed to re-adjust to life in the wild.

Ulrich Karlowski

If you want to support these orphanages, you can do so with a donation. Refer to "bush meat" when you transfer your donation to our account and we will pass it on to WSPA. Recently, we have handed over DM 1,800 to WSPA that have been donated in this way.



Gorilla baby for sale in Cameroon

Photo: WSPA/K. Ammann



CONSERVATION

Europe Secretly Says Good-Bye to Species Conservation

Europe is giving up the chance to shoot the bolt to the worldwide loss of species,

this is the assessment of Undine von Blottnitz, a member of the European Parliament from the German party *Bündnis 90/Die Grünen*, in response to the recent draft of the new European Regulation for Species Conservation.

After 4 years of negotiations, the EU agreed on a proposal, called *Document 9457/95*, which is expected to be passed this year. It was necessary to amend of the old regulation dated 1984, *EWG No. 3626/82*, in order to bring it into line with the requirements of the common market and with CITES. The trade in rare animal and plant species within Europe is not only differently regulated in each country, but most importantly far more restricted than CITES requires. This situation as well as the non-uniform legislation within the common economic area was criticized by the non-European CITES signatory states. They requested that the European delegation promise to develop a European Regulation for Species Conservation, similar to CITES, by the next CITES conference to be held in Zimbabwe in 1997.

Minister Merkel Is Disappointed

The German Minister for the Environment, Angela Merkel, expressed her disappointment at a symposium in November 1995 called *Perspectives for Species Conservation*. She regretted that it was not even possible to agree on a general permit requirement for imports of all vertebrates, let alone an EU import ban on all wild caught birds. It became clear that Germany was fighting alone for species conservation.

Our position was hopeless, no other member of the EU supported us,

the Minister concluded. The first drafts of the new regulation included almost all the animal and plant species listed in the original regulation as well as the species listed in the Habitat and the Birds Directive. However, the lists in the appendices, especially the new Appendix I, were shortened with every round of negotiations. (Species listed in Appendix I may not be traded in.) Now 510 mammal and bird species, including almost all birds of prey and owls, will lose the highest level of protection. In the future, they can be traded in with a special permit, as well as 110 strictly protected orchid species and other plant, reptile, and amphibian species. The new regulation will also open the door for trade in more than 500 European bird species - a permit will no longer be necessary.

Species Conservation like a Bull in a China Shop

Germany is hit especially hard by the new Regulation for Species Conservation. The prohibition of trade still valid for about 3,000 species native to this country has been lifted, must be lifted because at the EU level nobody accepted the importance of protecting them. Additionally, 230 exotic bird species which were formerly not allowed to pass through Germany's borders may now be imported. These species are also called "Non-CITES-species". Their inclusion into the new regulation was one of the most important points of controversy. The results of these discussions are sobering: Only 49 Non-CITES-species are included in the new regulation.

Martin Uppenbrink, the president of the *Bundesamt für Naturschutz* (BfN), the German CITES Authority, explained during the symposium which perspectives for international species conservation still remain.

Effective species conservation will only be possible in the future through economic utilization. Each

species has to earn its own financial funds for its conservation.

This means that biodiversity conservation should be guaranteed more and more through the economic utilization of the species to be protected. Considering this utilization stipulated by law, it was only fitting that a representative of the *Bundesverband für fachgerechten Natur- und Artenschutz* (BNA) joined the podium which was obviously very much oriented towards trade. This German organization had proved several times that it is in fact only representing the interests of commerce.

The highest German conservation authority (BfN) and the BNA may make strange bedfellows, but the liaison is so rewarding that it is now admitted openly. For the end of May this year, the BfN announced proudly and with great fuss a joint trade conference with the BNA, entitled: *New Ways in Species Conservation*.

However, the German Ministry for the Environment and the BfN do not seem to believe entirely in the European way and therefore rely on other means of support, such as increased breeding in captivity, education or the introduction of a certificate for the trade in wild animal and plant species. They are also setting their hopes on the Animal Welfare Law, which is meant to stop the expected flood of exotic animals into Germany with the help of strict regulations for animal keeping or with a certificate attesting the ability to keep exotic animals; both are neither in preparation nor even defined.

When the projected measures are examined in detail, it becomes evident that they will have little or no effect at all. For example, in the future it will be possible under the new Regulation for Species Conservation to import trophies of teeth from the highly endangered narwhal from Greenland into the EU. Denmark insisted on this privilege in favour of the people of Greenland, although the scientific committee of the



CONSERVATION

International Whaling Commission (IWC) does not think that the utilization of this whale species by the Greenlanders at this time can be called sustainable. There is no real catch quota because little is known about the population's size.

Moreover, it is almost impossible to exercise control of imports at the external borders of the EU in Greece, Spain or Portugal. The import of falcons, for example, which are easy to identify as a group, was completely prohibited up to now. However, according to the new regulation, it will be allowed to import most falcon species with official permit.

Without well-founded special knowledge in zoology, no customs officer will be able to determine which species he or she is dealing with,

says Herbert Biebach, an ornithologist who works at the Max Planck Institute for Behavioural Physiology in Andechs. Thus, it will not be a problem in the future to import 'legally' endangered falcon species that are excluded from trade. One bird might sell for up to DM 100,000 on the black market.

What is more, the problems that already exist under the present regulation are still unsolved. Germany is one of the main countries that import caviar. As the sturgeon species which are being caught in Russia for the production of caviar are not listed, the caviar trade continued uncontrolled for years. As a consequence, some of the sturgeon populations have already been so heavily exploited that their survival is questionable. Although it would like to, Germany cannot support Russia in this case by means of an import control; without this support, however, Russia is unable to prevent the illegal trade, which amounts to much more than the legal trade.

The EU allows bans only for the ownership and trade in endangered animal and plant species within its member countries. That could cause

chaos regarding species conservation legislation in Germany. In accordance with a reform of the Constitution in 1994, the Federal Government has only very restricted rights to take immediate action and define regulations for direct species conservation; instead, the German states were given more rights. The result could be a fragmentation of the jurisdiction for species conservation with 16 different regulations in the nature conservation laws of the states. The possible consequences: it may be permitted to keep and trade in the same species in one state, in another it may be allowed to keep it but not to sell it, whereas in a third state neither of these may be permitted. The Federal Government hopes that this calamity can be avoided by developing a common model for this legislation with all states. This law would have to pass unamended all 16 State Parliaments.

Despite the disadvantages for Germany, the Ministry regards the new

European Regulation for Species Conservation as progress. It means that export permits of the exporting countries no longer necessarily have to be acknowledged. The Government also thinks that improved opportunities for controls at the external borders of the EU are very promising. The member countries would be obliged to fight violations by establishing legal sanctions in accordance with their national law.

This is the price Germany has to pay in order to enable other EU members to improve their local standards,

says Martin Uppenbrink of BfN, almost apologizing. On 1 January 1997, the regulation is to come into effect, unless an initiative of more than 60 animal protection and nature conservation organizations from all over Europe – among them the *Berggorilla & Regenwald Direkthilfe* – succeed in stopping the regulation through an initiative at the European Parliament.

Ulrich Karlowski



"Live animals" from India: dozens of parakeets that died during the transport to Europe

Photo: Komitee gegen den Vogelmord



READING

Michael Leach

The Great Apes – Our face in nature's mirror. London 1996. 176 pages, hardcover. £ 20.

William C. McGrew, Linda F. Marchant and Toshisada Nishida (eds.)

Great Ape Societies. Cambridge (Cambridge University Press) 1996. Ca. 350 pages, 44 pictures. Hardcover £ 45.50, paperback £ 15.95. ISBN 0-521-55494-2 (hc.), 0-521-55536-1 (pb.).

Frans de Waal

Good Natured – The Origins of Right and Wrong in Humans and other Animals. Harvard University Press. ISBN 0-674-3560-8.

Hans Dieter Neuwinger

African Ethnobotany. Poisons and Drugs. Weinheim, Germany (Chapman & Hall) 1996. 850 pages, 66 coloured illustrations, hardback. DM 248,00. ISBN 3-8261-0077-8.

Robert L. Sharer, Hema R. De Zoysa and Calvin A. McDonald

Uganda: Adjustment with Growth, 1987-94. Washington (IMF) 1995. 43 pages. \$ 15. ISBN 1-55775-461-6.

P. Godfrey Okoth, Manuel Muranga and Ernesto Okello Ogwang (eds.)

Uganda: A Century of Existence. Kampala (Fountain Publishers) 1995. 278 pages. ISBN 9970-02-022-6.

P. Langseth, J. Katorobo, E. Brett and J. Munene (eds.)

Uganda: Landmarks in Rebuilding a Nation. Kampala (Fountain Publishers) 1995. 354 pages. ISBN 9970-02-070-6.

Thaddeus C. Trzyna

A Sustainable World. Defining and measuring sustainable development. London (Earthscan) 1995. 240 pages. £ 16.95. ISBN 1-85383-267-7.

Lester R. Brown et al.

State of the World 1996. A Worldwatch Institute report on progress toward a sustainable society. London (Earthscan) 1996. 288 pages, paperback. £ 12.95. ISBN 1-85383-327-4.

IUCN

Strategies for Sustainability. Africa: Vol. 1. London (Earthscan) 1996. 144 pages, paperback. £ 13.95. ISBN 1-85383-270-7.

With chapters on Ethiopia, Guinea, Kenya, Nigeria, Serengeti, Tanzania, Uganda, Zambia, Zimbabwe.

UN

Accessing the Canopy Assessment of Biological Diversity and Microclimate of the Tropical Forest Canopy: Phase 1. UN 1995. 88 pages. \$ 12.50. ISBN 92-1-127014-6.

Julian Caldecott

Designing Conservation Projects. People and biodiversity in endangered tropical environments. Cambridge (Cambridge University Press) 1996. 312 pages, hardback. £ 45, \$ 64.95. ISBN 0-521-47328-4.

This book covers the subject from different perspectives. At first, a few conservation projects from different continents (mainly from Asia) are introduced – their importance for conservation, their history, problems and management. Africa is represented with the Cross River National Park, Nigeria. For each project, the planning procedures are described in detail. The author lists the problems that arose in the various stages of project development and the efforts to solve these problems and discusses the successes as well as the failures. This should help to improve the planning and to avoid the same failures in new projects.

In the second part of the book, the case studies are compared, and general advice is developed – for example on the criteria for consultants, a model

project budget, management issues and options for funding. The book gives guidelines for effective conservation planning and reserve management. It also tried to give rules for sustainable use, although this subject is covered very cursory.

At the end of the book, the cooperation with local people is treated. This chapter gives hints as to how their confidence can be won, how they can be educated, how decision makers can be convinced and how the public can be involved in project management.



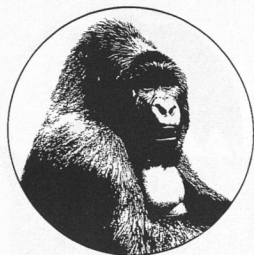
Gorillas from clay made by Karin Euler-Schulze for the exhibition Gorillas im Rahmen

Don Cousins

The Magnificent Gorilla. Lewes, Sussex (The Book Guild) 1990. 336 pages.

The author has a few copies of this book left. It can be ordered from:

Don Cousins
Flat 3, 45 Silverdale Rd.
Eastbourne, E. Sussex
England

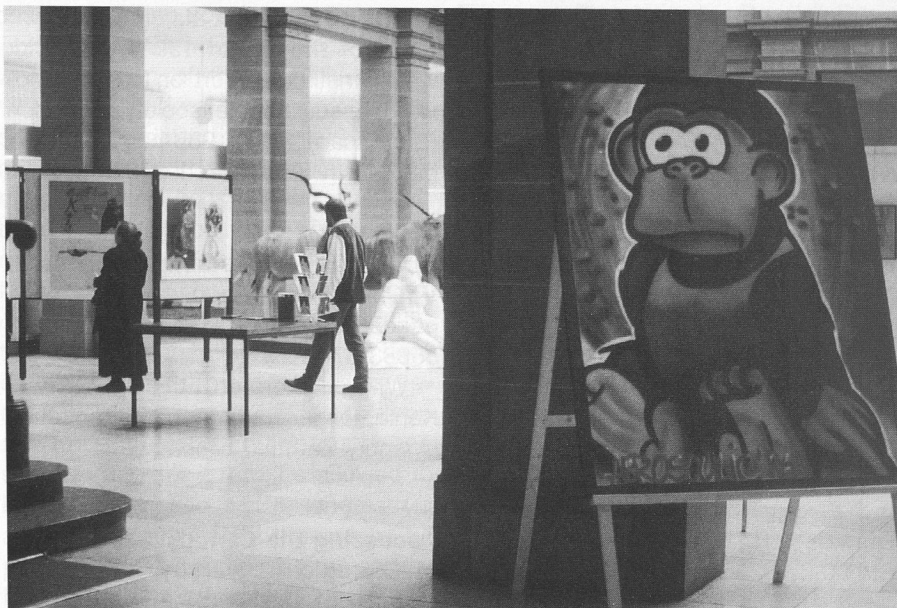


BERGGORILLA & REGENWALD DIREKTHILFE

Opening of the Exhibition *Gorillas im Rahmen*

Many visitors crowded in front of the artworks presented in the exhibition *Gorillas im Rahmen* (Gorillas in Frames) at the vernissage in the Museum Alexander Koenig in Bonn on 9 May 1996. The attention of the guests was also caught by the rainforest exhibition of the *Berggorilla & Regenwald Direkthilfe* and the "bamboo booth" which offered T-shirts, postcards, books, prints and so forth. A showcase presented various gorilla objects; most of them had been kindly placed at our disposal by Karl-Otto Weber from his primate collection.

Most of the artists who made their paintings, drawings, prints, sculptures etc. available for the exhibition come from the region near Bonn and Cologne, but some contributions were sent also from far away – even from Japan. Anyone who buys one of these works of art supports the conservation



View of the exhibition

Photo: Angela Meder

activities of the *Berggorilla & Regenwald Direkthilfe*. The exhibition was also supported from another side: The

company Haribo printed the invitations and hand-outs and placed 5000 liquorice gorillas at disposal for sale. They were a big success.

The exhibition was opened with short talks given by Michael Schmitt of the Museum Alexander Koenig, Ulrich Karlowski of the *Berggorilla & Regenwald Direkthilfe* and Uschi Burtscheid of the working group *Gorillas im Rahmen*. After this, Ursula Karlowski read from the book *Familie 5* written by Jörg Hess; the author donated the proceeds from the sale of his book during the exhibition to our organization. The musical background for the event was provided by the group *Africa Song – Music from Zaire*.

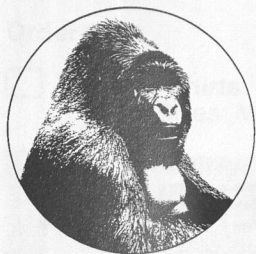
During the 6 weeks of the exhibition, more activities took place. The sculptor Karin Euler-Schulze offered workshops for visitors; they had the opportunity to form gorillas from clay. She also arranged for the artists to show any artwork that has not yet been sold at a great ape exhibition in the Cologne Zoo starting 1 July.



Uschi Burtscheid during her talk

Photo: Angela Meder

Angela Meder



BERGGORILLA & REGENWALD DIREKTHILFE

Report of the Meeting in Darmstadt

On 4 and 5 May 1996, we held our bi-annual meeting in Darmstadt, to report about our activities during the past 2 years. We described the current situation in the region and discussed the future plans and the general strategy of our organization with the participants of the meeting. Moreover, we informed about other activities, like various exhibitions, our archive which was set up by Lucia Reisch, our representation in the internet and the activities within the *Species Survival Network*. In addition, Ute Eilenberger reported about her internship in the Kahuzi-Biega National Park, and Christoph Lübbert about his journey to Uganda, Rwanda and Zaire.

During the discussions, it became apparent that our organization has to change its way of working. As Karl-Heinz Kohnen pointed out, we did not investigate the political developments in the region thoroughly enough, but this is necessary for an optimal project management. As we can no longer

work in Uganda, we have to tackle new projects. In the Virungas, the situation is still very critical because of political problems and the refugees, and therefore we do not know if it will be possible for us to start working there. Every other organization has the same problem. The mood is very pessimistic. But that should not prevent us from continuing our work in those areas where we can achieve something.

The workload for the few active members of the *Berggorilla & Regenwald Direkthilfe* has greatly increased, and we need some help. Karl-Heinz Kohnen suggested looking for collaborators who could manage certain projects responsibly. They would have a budget available, including a grant for travel expenses. Already during the meeting, a few persons told us that they would be interested in such a task in Kahuzi-Biega. There are other tasks that could be taken over. We would also appreciate receiving copies of publications about eastern gorillas and the region. Of course, more ideas are welcome at any time.

During the official part of the meeting, the board of directors was re-elected (Ulrich Karlowski, Karl-Heinz Kohnen and Angela Meder). Rolf Brunner reported about the financial situation of the *Berggorilla & Regenwald Direkthilfe*.

Increase of Subscription Rates

For several years, our subscription rates have remained the same, because we could meet our financial needs with donations. However, our activities in Africa now require increased financial efforts. The work in the field has to be coordinated and managed, and we have lost an important co-worker in Africa when Klaus-Jürgen Sucker died. During our meeting in Darmstadt, we decided to increase our subscription for 1997. We think that this is absolutely necessary for the continuation of our work, and we ask our members for their understanding, as we have to do this in a time of lower incomes and higher prices.

Students, unemployed	\$ 25
General member	\$ 75
Family	\$ 120
Donor	\$ 180

Gorillas in the Internet – our Home Page

The internet has not passed by the gorillas without a trace, and meanwhile quite a number of organizations and initiatives who just deal with one subject, i. e. gorillas, especially mountain gorillas, are bustling about in hyperspace. We also could not and did not want to ignore this new method of communication, and now we can offer our own internet page. Stephanie Hancock, who works for the travel agency *Kilimanjaro Travel*, was so kind as to not only provide the space for it (free of charge), but also to take over the organization of the page(s). We are very grateful for her efforts; without her pro-



Preparation of a showcase with snares for the rain forest exhibition at Gorillas im Rahmen (left: Peter Wittig)

Photo: Angela Meder



BERGGORILLA & REGENWALD DIREKTHILFE

professional help, the *Berggorilla & Regenwald Direkthilfe Home Page* would certainly still be a long way off.

Anyone who is interested does not have to wait any longer. Here comes the address: <http://www.kilimanjaro.com/gorilla/brd/>

If someone wants to extend his or her surfing through the seemingly endless depths of the internet for information about gorillas, we would advise starting this search at the *Kilimanjaro Travel Gorilla Help Site*: <http://www.kilimanjaro.com/gorilla/> From this site, you can easily find the most important pages in the World Wide Web which deal with the subject "Gorilla" – the one(s) from IPPL (*International Primate Protection League*), WSPA (*World Society for the Protection of Animals*), DFGF (*Dian Fossey Gorilla Fund*) and WWF, or also from the very interesting *Unofficial Gorilla Home Page* edited by Mark Scahill from the University of Kent. Stephanie Hancock really did an admirable job with the Kilimanjaro Page.

Very scientifically oriented, but sometimes also immoderately loaded with information, is *Primate Talk*, a professional discussion forum for primatologists all over the world. It was established by the Wisconsin Regional Primate Research Center. You can subscribe for *Primate Talk* via e-mail under: primate-talk-request@primate.wisc.edu (with empty subject line) and the message "subscribe primate-talk" in the text body. If you prefer to select the information for yourself, you may log into *Primate Info Net* (PIN): <http://www.primat.wisc.edu/pin/> The *Gorilla Conservation News*, edited by Kelly Stewart, is available at this address: <http://anthro.ucdavis.edu/gcn/>

For those who are generally interested in subjects about nature and the environment, there are two interesting pages to start with The EnviroWeb – A Project of the EnviroLink Network, at

<http://www.envirolink.org/> and Earth Information System at <http://www.eartheis.com/>

And now we wish you lots of fun with gorilla surfing!

Ulrich Karlowski

Participation in an Exhibition about Species Conservation

From 20 June to 1 October 1996, an exhibition is being shown by the Stuttgart Museum for Natural History in the Rosenstein Castle, called "Species Conservation is Conservation of Humans". Its purpose is to remind us that Germany signed CITES 20 years ago. The initiator for the exhibition and various other events is the *Arbeitsgemeinschaft Artenschutz* (Workgroup for Species Conservation). Two boards were designed by the *Berggorilla & Regenwald Direkthilfe*. Many talks will be given during the exhibition. Angela Meder will present our work on 4 September.

Donations

We would like to thank all the persons who have supported us with their donations during the period from 1 November 1995 to 31 May 1996. Major contributions were given by Jane and Stuart Dewar, Hartmut Knorr, Hans-Peter Leuer, Angela Meder, H. Pfeiffer, H. J. Reich and Ulrike Reutter. Erwin Fidelis Reisch (*Reisch Tours*) took charge of the costs of reproduction and composition for the journal. Many thanks to all the above mentioned and all the other donors for their confidence in our work, and we hope that you will continue to support us!

New Articles

You can now order two new articles from us. One is a picture postcard of a

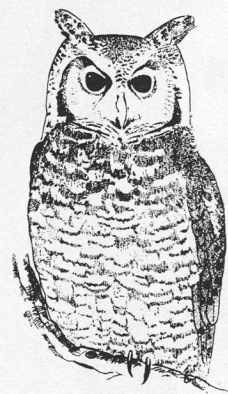
young feeding mountain gorilla in Rwanda (see below). The photo was taken and the postcard produced by Gabriele Holzinger, an Austrian; she kindly donated the postcards to us to sell.

The other new article is the *Check-list of the Birds of the Bwindi-Impenetrable Forest, Uganda* (see below). It was compiled by Jan Kalina and Thomas Butynski, and the printing was funded by the *Berggorilla & Regenwald Direkthilfe*. The check-list comprises 26 pages; 11 pages describe the park and its birdlife and give hints for bird-watchers. A list with references is also included.



Postcard by Gabriele Holzinger

Check-list of the
Birds of the Bwindi-Impenetrable Forest,
Uganda



Jan Kalina & Thomas M. Butynski



Order form

- ☐ **SOS T-shirts.** 100% cotton, gray. Print in three colours. \$ 25. Sizes: M – L – XL – XXL. Number and sizes:
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- ☐ **Picture postcards.** \$ 1 per piece
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- ☐ Number sets with 20 postcards (10 Mushamuka, 10 Bwindi). \$ 15.
- ☐ **Infoe study.** Deforestation and the Forest Peoples of Central Africa. \$ 7.
- ☐ **Check-list of the Birds of the Bwindi-Impenetrable Forest, Uganda.** \$ 5.
- ☐ **Please send me your complete order form with available publications in German.**

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All prices include postage and shipment. Please send a cheque together with your order.

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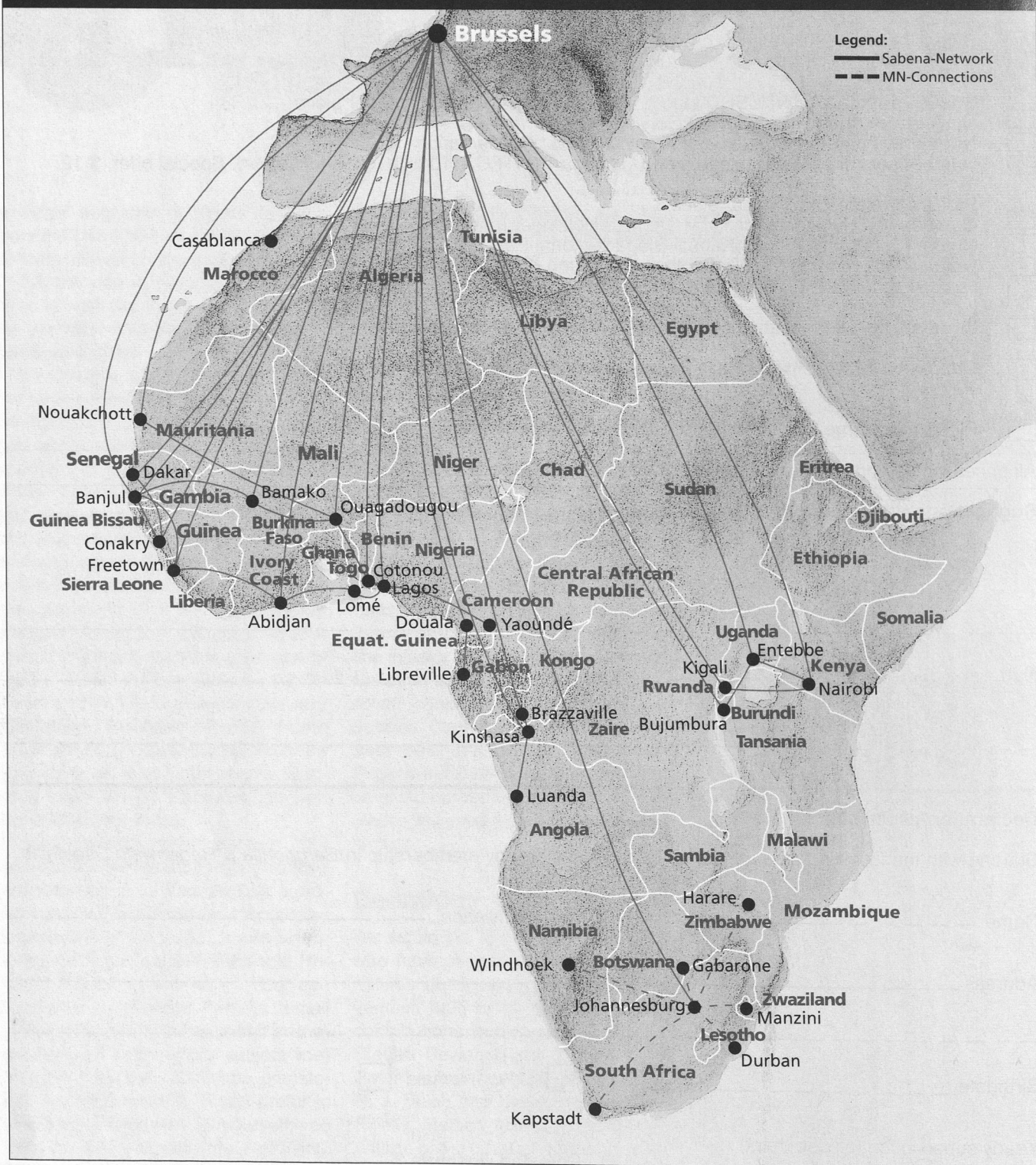
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