



# ***Gorilla Journal***

*Journal of Berggorilla & Regenwald Direkthilfe*

*No. 69, December 2024*



**Sarambwe under  
Occupation**

**Report from the  
Maiko National  
Park**

**Community  
Projects at Mount  
Tshiaberimu**

**African Ape Sites  
and Climate  
Change**



# BERGGORILLA & REGENWALD DIREKTHILFE

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### Gorilla Journal 69, December 2024

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Cover: Group of trackers of the Sarambwe Reserve with new clothing showing the logos of B&RD and of the Wilhelma who supports the patrols in Sarambwe regularly. Photo: Augustin Katsiribindi

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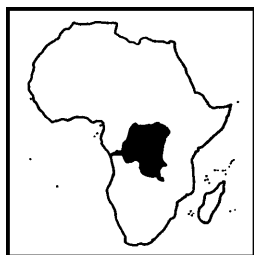
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## D. R. CONGO

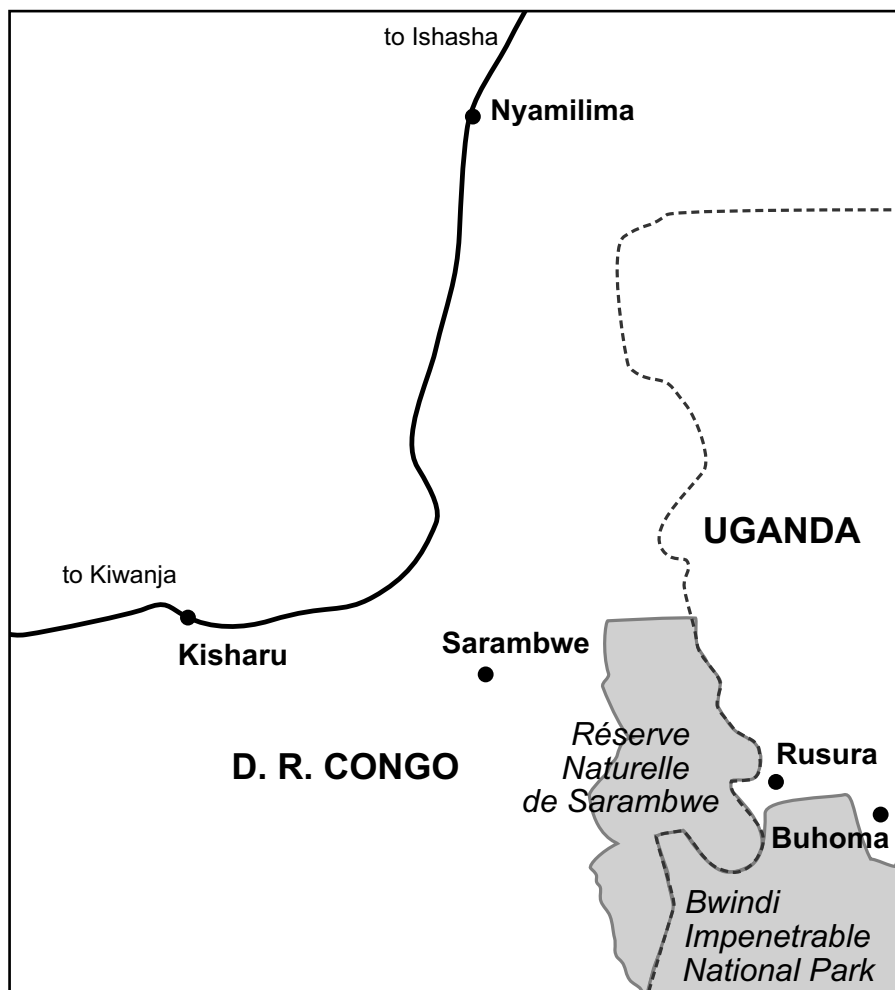
### Sarambwe under Occupation

#### Involving the population in conservation

Conservation and protection of biodiversity in eastern Democratic Republic of the Congo are subject to guesswork regarding the future and the survival of the fauna and flora. The different front lines and generalised fights, mainly in the Masisi and Rutshuru territories, pose a threat to conservation activities in the Virunga National Park and the Sarambwe Nature Reserve; these two protected areas are exposed to serious risks of destruction which could reach a point of no return. The displacement of thousands of people who are fleeing the conflicts without any assistance provided by the authorities has led to the destruction of the Virunga National Park's forest: people cut down trees for timber and to produce charcoal and prepare land for crop cultivation. As an example, the southern part of the park lost 964 hectares of forest between June and November 2023 (Global Forest Watch, November 2023). As of today, the total impact of the war on the fauna is still unknown.

Besides displacements, in most places with no conflict, the local population is asking for land under the hidden influence of politicians which leads to encroachments of protected zones and to animosity towards agents working in these zones. This was the case for the trackers in the Sarambwe Reserve in April 2023. This situation forced us to set up a system of rotation between members of the community, involving more of them in tracking activities. The first system of rotation excluded any person who had ever poached or cultivated in the reserve. As a result, these rejected community members became embittered and the system of rotation only worked for two turns.

Seeing the M23 rebellion progressing on the Kiwanja–Ishasha road was



*The Sarambwe Nature Reserve at the border to Uganda*

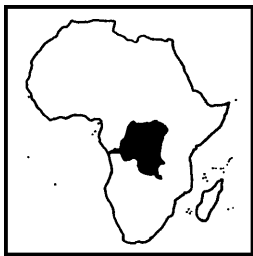
*Map: Angela Meder*

a terrible blow for us and caused great concern for the future of the Sarambwe Nature Reserve, located half way between Kiwanja and Ishasha (a border post with Uganda). These developments took place during two different stages, the first stage being in December 2023: rebels progressed from Kiwanja up to Nyamilima (a village located 40 km from Kiwanja and 20 km before reaching Ishasha) but then later on were forced to retreat to Kiwanja following numerous deadly ambushes on the occupied stretch. At this time of events all loyalist military had already

left the zone. After the M23 retreat, Wazalendo, patriotic militias (including former Mai Mai rebels and others) settled in the ranger post in Sarambwe.

Being the only armed force, they started asking people to get firewood from the reserve for them. They also wanted to escort trackers in the reserve saying it was to protect them.

Under the influence of former poachers, some Wazalendo started to poach and gave the trackers an evil eye. One time, they went hunting with villagers who did not know the location of the boundary. They crossed to Uganda



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where they were arrested by Ugandan military, then released after some talks with the Congolese army. The trackers were scared and left their post to relocate to villages. The coordination of their activities was now planned from the chief tracker's village. Thanks to the long-lasting collaboration with the local population in the implementation of micro development projects, people were now giving useful information for the protection of the reserve. Fortunately, once informed, the Director and Chief Assistant of the Virunga National Park and the Eastern Sector Chief sensitized the Army Chief who formally forbid the Wazalendo rebels from poaching and attacking the trackers.

In November 2023, trackers leaving the forest after their duty were chased by former embittered poachers and young people who claimed to be leaders. With the Chief Conservationist of the eastern sector of the Virunga National Park and his Communal Conservationist, we carried out surveys and research. It turned out these young people and the poachers were jealous of the trackers claiming that they too had lost land in the reserve and therefore had the right to get jobs, along with other local people.

Today the Sarambwe Nature Reserve hosts four villages including a total of 810 households. Most of the population has relocated to Uganda or to towns like Rutshuru and Goma. In an attempt to palliate the demands of these embittered persons, we met with the chiefs of the four villages and came to an agreement that trackers will come from these villages working alternately in shift teams of 10 for a rotation period of 2 months, without excluding those who had carried out destructive activities as long as they do not repeat their acts. At the moment, everything is going well and any trespasser in the reserve is immediately reported by the population. Currently, there are no worries of destruction concerning the for-

est of Sarambwe by cutting down timber, making charcoal or poaching.

At the beginning of August 2024, the M23 rebels resumed the fights. They progressed rapidly and in only one week they took control of the road from Kiwanja up to Ishasha, the border post with Uganda. Just before they reached Sarambwe, the Wazalendo, who were occupying the ranger post, left taking with them all trackers' goods still in the post: tarpaulins, sauce pans, solar panels, phones, chargers, extensions and mattresses; they also stayed in four doors out of the five in the ranger post.

Four days after the capture of Ishasha, M23 carried out controls in the surrounding areas of Sarambwe and advised the population to stay calm. The trackers' duties are going well – however, they fear that some Wazalendo could be hiding in the forest around Sarambwe disguised as civilians.

*Claude Sikubwabo Kiyengo*

## Report from Maiko National Park

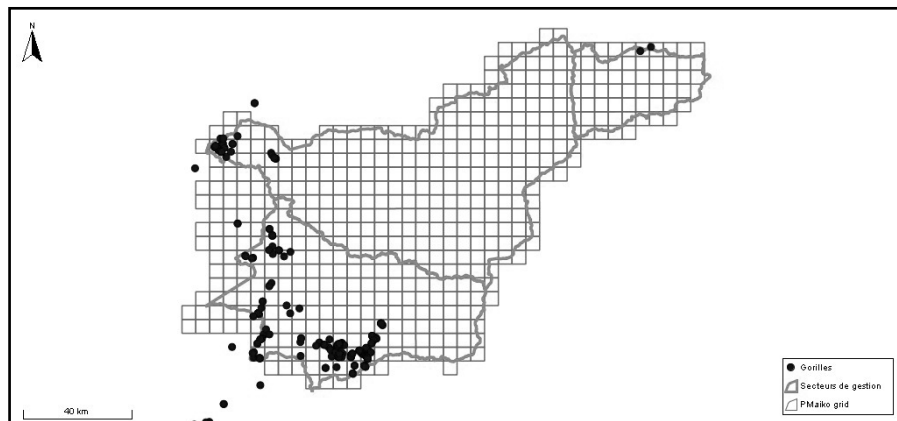
The task of the managers of Maiko National Park is to protect the rainforest and its biological diversity and to preserve its importance in ecological,

cultural and socio-economic terms. There are a total of 11 ranger posts in the three sectors of the national park, but most are unmanned for financial reasons. Those responsible for the park do whatever they can.

The park faces many threats: rapid population growth in the surrounding area, large-scale agriculture and livestock farming, extraction of minerals and various other resources, expansion of infrastructure, industrialization. During patrols within the park, the rangers regularly observe poaching and poachers' camps, exploitation of resources, burning of forest areas to create new fields, the establishment of new settlements and signs of the presence of armed groups. A total of five armed groups are currently present in the park; four of these are willing to work together with the park managers.

Every month there are as many patrols as the limited resources allow. In the first half of 2024, there were 44 patrols, totalling 590 man-days. During patrols, all significant observations are recorded, including sightings and traces of endangered animal species. While gorillas were not observed directly, 296 traces of them were recorded (nests, faeces, traces of food, hair).

The park managers rely on coop-



**Places in the Maiko National Park where traces of gorillas were found during the patrols in the first half of 2024**

Map: ICCN





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**The new Director of Maiko National Park, Lucien Gédéon Lokumu, discusses with Claude Sikubwabo how B&RD will support the park. At the left: Rodrigue Mugaruka, Virunga National Park**

*Photo: Claude Sikubwabo*

eration with the population, for whom the forest is their livelihood. The people living in the vicinity of the park also need to be involved in decision-making as is now legally required in the Democratic Republic of the Congo. This includes determining means to improve the living conditions of the population. In this endeavour, the park is supported mainly by Fauna & Flora International. Measures include support for tree planting, the introduction of energy-saving stoves and environmental education.

Lucien Gédéon Lokumu Ilombelombe has been the Director of the park since the beginning of 2024. Despite the many problems, he takes a positive view of his first six months on the job. Although the financial situation is very difficult, some important projects have been launched, such as a large mammal survey in the southern sector, but considerable additional funding is needed to extend this survey to the entire area of the park. There are new plans for the future, such as camera traps to complement the survey.

Options for the introduction of tourism to the park are also under discussion.

*Summary of the report for the first half of 2024*

### **The Killing of a Gorilla and the Destruction of Habitats in the Maiko National Park**

The Grauer's gorilla is facing a major crisis. Several factors are threatening its habitat: agricultural and pastoral expansion, subsistence hunting, bushmeat exploitation and the illegal trade in exotic animals. In addition, intensive mining and a decade of civil war, combined with socio-economic depression, are seriously affecting forest resources and wildlife in the Democratic Republic of the Congo (DRC).

Since 1996, the entire range of the Grauer's gorilla has been affected by conflict. This has led to a total collapse of government control, including wildlife protection activities. Large populations of this gorilla subspecies as well as chimpanzees have not been monitored for many years and, as a result, the current status of the Grauer's gorilla has been poorly documented since the surveys conducted by the New York Zoological Society (now the Wildlife Conservation Society, WCS), with contributions from Berggorilla & Regenwald Direkthilfe, between 1989 and 1992 (Hart & Sikubwabo 1994) and by the WCS between 1993 and 1995 (Hall et al. 1998). The conservation challenges are likely to increase as the destabilisation of the DRC continues to grow.

The threat to Grauer's gorillas is not new. More than 120 armed groups are thought to be active in eastern DRC, some of them using the Maiko forests to extract resources for their survival and operations, as cover for hunting and military training. Conflict over re-



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**Body (above) and head (right) of the gorilla killed in the park**

*Photos: Civil Society of Burondo*



sources and territory has led local militias to invade and exploit the region, resulting in deforestation, extraction of raw materials, poaching and illegal farming.

On Sunday 20 October 2024, the body of a Grauer's gorilla killed in the Maiko National Park was brought back to the village of Burondo by poachers to be eaten. The lack of an established local authority and the absence of ICCN (Institut Congolais pour la Conservation de la Nature) officers made it possible for this poaching to go unpunished. Burondo is a mining patch in the Maiko National Park, a 3-hour walk from the former Loya patrol post, 1 hour from the village of Tshopo and 2 days from the former Mandaye patrol post. The tragic death of this gorilla was caused by humans (poachers), and is a blow to all of us fighting to protect this endangered species. Local poachers illegally set traps in the park to catch antelopes and other animals for food, but unsuspecting gorillas, particularly baby gorillas and young gorillas, sometimes fall into these traps.

### **A natural habitat is being destroyed**

While poaching is one of the major causes of the gorillas' disappearance, the destruction of their habitat is another major factor. Living in forests, gorillas have suffered from the consequences of deforestation, which has long since decimated their natural habitat. As a result, only 10% of their territory is expected to be intact by 2030! Gold mining using dredging machines, and artisanal mining, is destroying the Maiko's main primary forests day by day. As a result, the great apes



**Illegal activities in the park found during patrols: gold mining (left) and a poacher camp (right)**

are seeing their habitats and food resources rapidly diminished for the benefit of the large mining companies, which are fragmenting and destroying their ecosystems. We have a duty to protect all animal life, because it is our responsibility to preserve nature and all the creatures living there.

More than three quarters of the Maiko National Park are unprotected, including almost all of the Central Sector. The eco-guards of the Central Sector are based in the village of Adusa, located 70 km from the park boundary, too far away to effectively protect the park. They are just there to control the bush meat trade. Hence, there are no patrols in this part of the park.

In order to mitigate this destruction, NGOs or Local Community Forest Concessionaires (CFCL) should sensitise the population and all other stakeholders involved in conservation about their heritage and show them that progressive losses of habitats or fauna can lead to the total loss of ecosystems.

As a result of the activities destroying forest ecosystems, especially in the eastern part of the Maiko Central and Southern Sectors, elephants tend to abandon their main home ranges (Maiko National Park) and head for the villages where they destroy crops and create conflicts with the local population.

The elephants have just spent more than 6 months around the villages of







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**A cassava field on the right bank of the Lindi River. The river Lindi forms the boundary of the park, which is located here to the north.**

*Photo: Mr Messenger of the village Makutaniyo*

Makutaniyo (a village located at the confluence of the Lubero and Lindi rivers), Mabombi and Vumilia. It is estimated that 10 ha of cassava fields, 12 ha of banana plantations and 2 ha of maize fields have been destroyed by elephants in the last 6 months. The local people do not know which way to turn. If the government does not find a solution to this problem, a spirit of vengeance could be stirred up by the destruction. The remoteness of these places from the main roads and the presence of dozens of armed groups make it difficult for ICCN and government agents to stay in these places.

*Papy Kabaya Mahamudi and  
Claude Sikubwabo Kiyengo*

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### Community Projects at Mount Tshiaberimu

#### Water provision for two schools

For many years the Wilhelma, the Zoological-Botanical Garden of Stuttgart, has collected mobile phones for recycling. This year's proceeds have allowed us to provide water to two schools and their communities at Mount Tshiaberimu. Water is brought from a spring, through pipes, directly to the village of Kisanga. Four water fountains with taps have been installed – one in each school, one in the village and one at the spring. The work was carried out by two water supply experts and was supported by 15 other people. The community provided boards, beams and sand for the construction as well as chlorine for the disinfection of the spring water.

The project provides water to the community, consisting of approximately 250 households, and about 1,000 children in the two schools. Passers-by can use the public fountain at the spring. This is very helpful to the community as people now have access to a reliable source of clean water, helping the fight against water-borne diseases such as cholera, diarrhoea and parasitic diseases. As the water arrives directly in the village, collecting water no longer takes up so much of the time of girls and women, who are able to turn their attention to trading, working in the fields or attending school.

Previously, the Kisanga residents had to fetch their water from a spring

### A Larger Classroom

At the school "Institut Mt. Tshiabirimu" a new classroom was also built with the proceeds of the Wilhelma mobile phone collection. The classroom normally has a width of 7 m and a length of 8 m. At that Institute they wanted to get a very large classroom that could serve also as a small church room, so they modified the dimension to 9 m width and 10 m length.



**Construction of the new classroom at the school Institut Mt. Tshiabirimu that was funded with the proceeds of the Wilhelma mobile phone collections.**

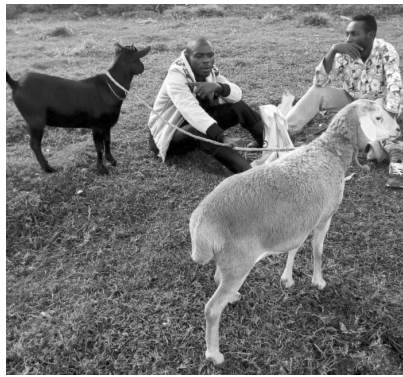
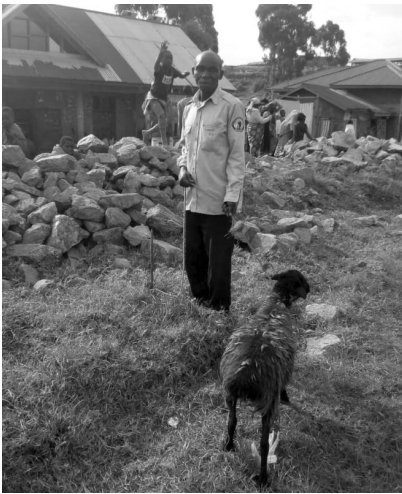
*Photo: Kasereka Gervais*



# D. R. CONGO

## Rotating Sheep and Goats

The Dutch GaiaZOO located in Kerkrade provided support to the wives of trackers by means of the Gaia Nature Fund. The women receive pregnant ewes to look after. Once the lambs are born and have been weaned, the women keep them and pass the ewes on to the wives of other trackers.



Photos: Kasereka Gervais



***This goat and 7 more were distributed in the village Nyagahira close to the Sarambwe Reserve, funded by the Stuttgart Zoo. The goats will be handed over to others in a rotation mode (see left). The aim of this activity is to keep people from poaching in the reserve.***

Photo: Augustin Katalwaki



***The original water source for Kisanga***



***Drinking fountain during construction work, Kyuna primary school and Kisanga Institute, Kisanga***

Photos: Kasereka Gervais

that was almost a kilometre away, was not fenced and was also used by goats and other livestock. The students of Kyuna and Kisanga had to bring water to school in containers for drinking and to clean the schoolrooms. The Kisanga health centre, which uses a simple farm spring, is no longer crowded with people asking for water.

Every time a new water supply is installed, an event takes place, at which information on the maintenance and possible repairs of the spring and infrastructure are shared. The water users are required to make a small monthly contribution to pay for materials or workers when repairs are needed. Usually, a water supply will continue working for five years without requiring major repairs.

*Summary of a report by Claude Sikubwabo Kiyengo*





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*Experts supervise the whole project to make sure that as many of the seedlings as possible will survive.*

*Photo: GRACE*

### Addressing Deforestation and Forest Pressures

The Kagheri Reforestation Project has already distributed over 70,000 tree seedlings, with plans to plant 50,000 more in its current phase (May to September 2024). The initiative primarily focuses on fast-growing species, such as *Eucalyptus saligna* and *Harungana montana* (known as Musombo in Kinande), which are used for cooking, building, and other household needs. By reducing the need to collect wood from the forest, the project aims to decrease pressures on primary tropical forests, a key habitat for the critically endangered Grauer's gorilla.

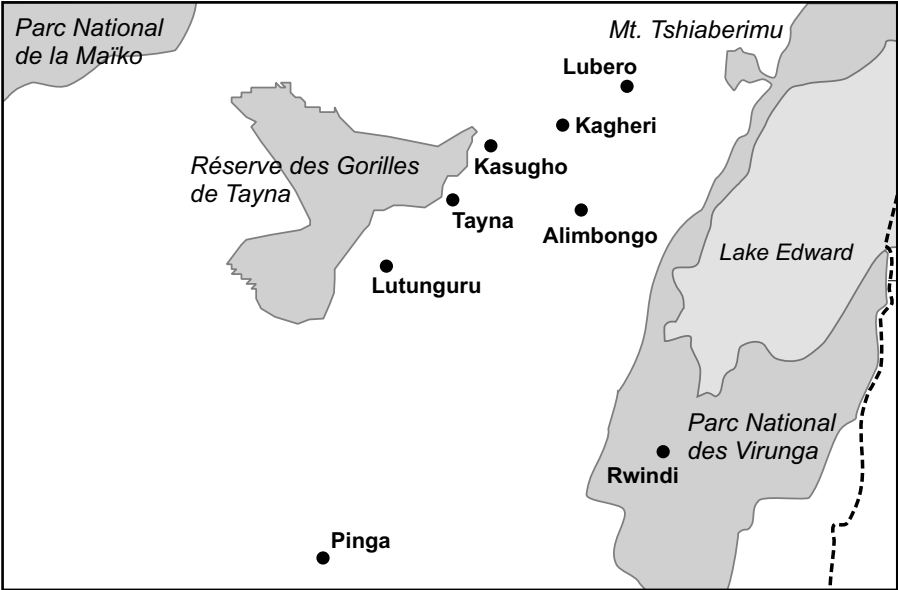
### Empowering Communities, Women, and Youth

Central to this project is community participation. Local women, who previously traveled long distances to gather firewood, now benefit from trees planted closer to home. Every week, 15–25 women work at the site, supported by agricultural experts from GRACE and SPEED-RDC. The

## Protecting Grauer's Gorillas through Community Partnerships: Sustainable Woodlots in Kagheri

### Celebrating Two Years of Community Partnership

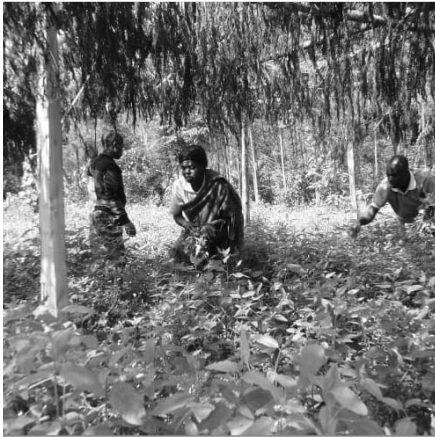
In the village of Kagheri, located 15 km from the GRACE (Gorilla Rehabilitation and Conservation Education) sanctuary in the Democratic Republic of the Congo (DRC), an innovative partnership between GRACE and the local association SPEED-RDC is reducing the community's reliance on primary tropical forests. This collaboration, which began in 2022, has launched a sustainable woodlot initiative that not only provides essential resources for local households but also protects critical habitats for Grauer's gorillas and other endangered species.



*Kagheri is located between the Tayna Gorilla Reserve and the Virunga National Park.*  
*Map: Angela Meder*



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**Community members are caring for the seedlings and young trees regularly.**

*Photo: GRACE*

project also engages youth through environmental clubs and sports events, encouraging young girls to take on leadership roles in conservation efforts.

## Looking Forward

With an estimated 950,000 seedlings needed to fully restore the Kageri area, the project continues to grow. Future plans include ongoing training on fuel-efficient stove implementation and adding sustainable activities like beekeeping and small animal farming to enhance local livelihoods while reducing forest dependency. This community-driven approach exemplifies how GRACE's partnership with SPEED-RDC is building resilience, protecting forests, and creating a safer future for both people and gorillas.

*Robert Kakule Madirisha, Faustin Muhindo Kibwana, Augustin Kambere Mbangi, Josias Kambale Kamaliro, Benezeth Kambale Visando and Jackson Kabuyaya Mbeke*

## Understanding Mpox Virus

I want to take a moment to update you on Gorilla Doctors' work across D. R. Congo, Rwanda, and Uganda regarding the mpox outbreak in the region and how we are working with our partners to minimize the risk of transmission to our eastern gorilla patients.

While there has never been a suspected or confirmed case of mpox in human-habituated gorillas, it is highly likely that gorillas are susceptible – natural infections have occurred in chimpanzees in close contact with human cases and other non-human primates (Li et al. 2023).

On August 1, we issued a memo to our partners reinforcing the critical importance of protecting human-habituated eastern gorillas from this viral pathogen through continued adherence to the IUCN Best Practice Guidelines for Health Monitoring and Disease Control in Great Ape Populations. Additionally, our teams on the ground have been participating at national-level meetings and leading education and awareness workshops with park staff – especially in eastern D. R. Congo where the outbreak is infecting the greatest number of people.

### What is mpox?

Mpox is a disease caused by an orthopoxvirus called Monkeypox virus and has two distinct types, clade I and clade II. Clade I is endemic (naturally occurring) in Central Africa and causes more severe disease than clade II. A new variant of clade I mpox, "clade 1b" is the cause of the current outbreak. Mpox is spread through direct and close contact with infected people or animals, and through contact with contaminated materials. The mpox clade 1b outbreak began in eastern D. R. Congo in September 2023 and has since spread to Rwanda, Uganda, Burundi, and Kenya.

### Are Eastern Gorillas at Risk?

Gorillas and humans share more than 98 % of their DNA, and 70 % (Cranfield & Ramer 2023) of the world's 1,063 mountain gorillas are habituated to the presence of people to facilitate daily contact for tourism, research, and conservation. We know from our research that gorillas are susceptible to human pathogens and this close, daily proximity increases the risk for contracting human pathogens.

Despite the risk, we also know from research on mountain gorillas that habituated mountain gorillas have a positive annual growth rate while unhabituated mountain gorillas have a negative annual growth rate (i.e. their numbers are declining; Robbins et al. 2011) – it is always a delicate balance, but these statistics point to the fact that the benefits of habituation and our ability to provide veterinary care outweigh the risks.

Most importantly, given that the transmission of mpox from people to gorillas would require close, direct contact with an infected person, the risk of transmission is quite different than that of a respiratory virus, which is more easily transmitted indirectly and from a farther distance.

### Minimizing the Risk of Transmission

We are operating under the assumption that eastern gorillas are susceptible to mpox. We have informed our park partners of the potential clinical signs (based on an outbreak that occurred in wild-borne, captive chimpanzees; Brien et al. 2024). If we have a suspected case in a gorilla, Gorilla Doctors veterinarians together with park authorities will collect diagnostic samples for analysis at the Gorilla Doctors Michael Cranfield Regional One Health Laboratory in Musanze, Rwanda, and/or at government reference laboratories in the region. In the meantime, we are coordinating with our park partners to develop a contingency



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plan should mpox enter wild gorilla populations.

As we regularly advocate for and provide training to park staff and tourism industry professionals, the most effective way to reduce the risk of transmission is to enforce the IUCN best practice guidelines for both great ape health monitoring and tourism activities.

Some of the key measures include:

- Assure that no person (e.g. park staff, tourist) who is clinically ill is allowed to visit gorillas.
- Allow no direct contact (touching) between people and gorillas (one notable exception is when our field veterinarians must conduct a life-saving intervention, in which case they wear protective gear).
- Maintain a distance of at least 7–10 m from gorillas at all times.
- Require that a surgical face mask be worn by anyone coming within 10 m of gorillas.
- Ensure that all individuals coming into close proximity of gorillas are wearing clean clothing and disinfected footwear prior to park entry.
- Provide hand-washing facilities and supplies for all individuals entering the parks.
- Reinforce instructions that people who need to sneeze or cough should cover their mouths and noses with the crooks of their elbows rather than their hands; provide hand sanitizer.
- Ensure no personal items (i.e. clothing, toilet paper, food items) are left behind in the park.
- Thoroughly bury human waste.

Prevention of disease transmission is always better than managing a disease outbreak, so along with our partners we remain vigilant and committed to monitoring our eastern gorilla patients for all infectious disease threats.

*Kirsten Gilardi*

*Originally published by Gorilla Doctors on 5 September 2024; for the latest on mpox visit the World Health Organization Disease Outbreak News site: <https://www.who.int/emergencies/disease-outbreak-news/item/2024-DON528>*

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## African Ape Sites and Climate Change

Climate change, along with the rise in extreme events, is expected to become a growing threat to wildlife. However, compared to other animals, not much research has focused on how the impacts of climate change could affect great apes.

In a recent study, scientists looked at how climate change has impacted, and could impact in the future, 363 locations where great apes occur across Africa. They studied the temperatures and rainfall between 1981 and 2010, and then used two climate change scenarios to predict how conditions might change in the near future (2021–2050) and long term (2071–2099).

They also estimated how often extreme events like droughts, floods, wildfires, and crop failures – events that could harm the apes directly or indirectly by increasing competition for habitat – would occur.

Between 2007 and 2016, nearly half of the sites experienced unusually high temperatures, with eastern chimpanzees facing the most intense heat. Under both climate scenarios, temperatures are expected to rise at all locations, and most places will likely face more wildfires and crop failures. The researchers also predicted that 288 locations would see more heavy rainfall, while some areas, particularly those where eastern gorillas live, could experience up to 20 additional consecutive dry days each year, meaning longer periods without any rain.

If efforts to limit global warming to 2 °C above pre-industrial levels succeed, about 84 % of sites would experience frequent heatwaves, and 78 % would face occasional flooding in the next 30 years. If temperatures rise by 3 °C, more places would be affected, and extreme weather events would happen even more often.

This study is the first to show that African great apes are already feeling the effects of climate change, and that these extreme events are likely to become more common. The researchers stress that conservation efforts should focus on increasing the resilience of apes to impacts from climate change.

*Stefanie Heinicke*

## Original publication:

*Kiribou, R., Tehoda, P., Chukwu, O., Bempah, G., Kühl, H. S., Ferreira, J., Sop, T., Carvalho, J., Mengel, M., Kulik, L., Mucyo, J. P. S., Hoek, Y. van der & Heinicke, S. (2024): Exposure of African ape sites to climate change impacts. *PLoS Climate* 3 (2): e0000345*

## Long-term Friendships in Female Mountain Gorillas

The strong relationship between adult males and adult females form the basis of gorilla social groups. Relationships





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among female gorillas are considered to be relatively weak, which may be due to their diet and dispersal patterns. Female mountain gorillas are thought to gain little by cooperating to defend their food as their major food resource is widely abundant. Furthermore, both males and females can disperse and female gorillas might transfer to a group with no co-resident kin. However, a recent study found that maternal kin spent more time in close proximity than other female pairs. Furthermore, it was shown that female gorillas stay in close proximity to certain preferred females and hence form friendships. These friendships between females usually lasted between 1 and 4 years. It remains unclear whether friendships between gorilla females can endure for more than 7 years as has been shown in other primate species. Additionally, the question as to whether these

relationships are restricted to maternal kin arises.

Using long-term data from up to 13 years, a study by the Dian Fossey Gorilla Fund in collaboration with the Universities of Texas and Zurich examined whether female mountain gorillas in the Virunga Volcanoes, Rwanda, form strong and enduring friendships. Proximity between female gorillas was used to indicate friendship. Furthermore, the researchers investigated whether friendship was influenced by kinship and age and whether friends also displayed high rates of grooming. Grooming is widely used as an affiliative behaviour to quantify the quality of social relationships or friendship in primates but it is rarely observed in gorillas.

The majority of females within the five groups studied had at least one female friend. Most relationships between female gorillas did not last long-

er than 2 years but 13 pairs of female mountain gorillas had strong and enduring friendships lasting more than 4 years. Additionally, long-term friendships of up to 12 years were found between mothers and daughters as well as maternal sisters. However, the researchers also found friendships between non-related females. The frequency of grooming was not associated with friendship between female mountain gorillas.

The study showed that female mountain gorillas can form strong and enduring friendships with each other, despite the low occurrence of grooming. The researchers argue that behaviours other than grooming might better reflect friendship in gorillas as well as in other species. Furthermore, friendship between gorilla females might impact their dispersal decisions and therefore explain the variable dispersal patterns observed in female mountain gorillas. Ultimately, strong and enduring friendships between gorilla females might influence fitness, as it has been shown in many other primate species.

## **Summary of this publication:**

Derby, R. N., Eckardt, W., Stoinski, T. S., Morrison, R. E. Sandel, A. A. (2024): Female mountain gorillas form enduring social relationships. *Animal Behaviour* 213, 139–147

## **The Impact of Kinship on Social Relationships between Immatures and the Silverback**

Western lowland gorillas usually live in one-male groups, consisting of one dominant male (a silverback), several females and their offspring. For immature gorillas, the mother is the most important social partner. As the immatures grow older, they usually shift their focus towards the resident silverback. Silverbacks are known for



**Western lowland gorilla females in zoos can also become friends. This is Ellen in the Frankfurt Zoo grooming her friend Jule after a little quarrel of Jule with the silverback.**

*Photo: Angela Meder*



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**Silverback Bongo in Apenheul playing with his son Lukas.**

*Photo: Angela Meder*

being very tolerant and for displaying affiliative behaviours towards the immatures. Immatures losing their fathers in the first year of life face a high risk of mortality.

One-male groups in western lowland gorillas are exposed to a relatively high risk of group disintegration after the death of the resident silverback. As a consequence, adult females and their offspring are forced to transfer to a new group. In the course of such an involuntary transfer, infanticide has been observed but also co-residence of the transferred immature with the new silverback. This raises the question about the quality of the social relationship between the silverback and co-resident immigrant immatures.

To answer this question, researchers from Kyoto University and the Institut de Recherche en Ecologie Tropicale examined one group of habituated western lowland gorillas in Moukabalaba-Doudou National Park in Gabon. Nidai group had five members, including two adult females and their two in-

fant, who were sired by the silverback of Nidai groups. After two neighbouring groups had disintegrated, Nidai group experienced an immigration of three adult females and their offspring, amongst others. Although the immigrant offspring were not sired by the silverback of Nidai group, no infanticide occurred. Amongst the “original” group members, there was one adult female, Randa, who had transferred from one of the neighbouring groups to Nidai group several years before their disintegration. Hence, Randa was an acquainted paternal kin to some of the immigrant immatures.

By observing the group during the years 2018 and 2019, the researchers found that the natal immatures, who were born in the group, spent more time in close proximity to the silverback than the immigrant ones. However, about one year after the transfer, the time spent in close proximity between the silverback and the immigrant immatures increased sharply. The silverback was the preferred so-

cial non-mother partner for the natal immatures, whereas some immigrant immatures preferred Randa as their social non-mother partner. This suggests that besides kinship familiarity plays an important role in influencing social relationships. There was no difference in the development of independence from the mother between the natal and the immigrant immature offspring, indicating that kinship with the silverback does not influence independence from the mother.

The proximity between the silverback and the immigrant immatures was usually initiated by the immatures. Additionally, the immigrant offspring spent more time close to the silverback than their mothers did. Despite the proximity, the silverback never displayed any agonistic behaviours towards the immigrant offspring. The researchers suggest that the tolerance towards the immigrant offspring shown by the silverback might be a reproductive strategy to enhance his own fitness.

## **Summary of this publication:**

*Tamura, M., Akomo Okoue, E. F., Mangama-Koumba, L. B., Ebang Ella Ghislain, W. & Mindonga-Nguelet, F. L. (2024): Does kinship with the silverback matter? Intragroup social relationships of immature wild western lowland gorillas after social upheaval. Primates 65, 397–410*



## READING

### Arcus Foundation

**State of the Apes Vol. V. Disease, Health and Ape Conservation.** Cambridge (Cambridge University Press) 2023. 463 pages. Hardcover ISBN 978-1-316-51307-1, paperback ISBN 978-1-009-06998-4. <https://www.stateoftheapes.com/volume-5-disease-health-and-ape-conservation/>  
Download PDF (42.8 MB): <https://www.stateoftheapes.com/wp-content/uploads/2024/06/state-of-the-apes-volume-5-disease-health-and-ape-conservation.pdf>

### FAO

**The State of the World's Forests 2024.** Forest-sector innovations towards a more sustainable future Rome (FAO) 2024, 122 pages, ISBN 978-92-5-138867-9. <https://www.fao.org/publications/home/fao-flagship-publications/the-state-of-the-worlds-forests/en>  
Download PDF (9.68 MB): <https://openknowledge.fao.org/bitstreams/a2dda5d0-9b5a-48e5-913c-072fe0fc17ed/download>

### IPIS

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Download PDF (14.1 MB): <https://ipisresearch.be/wp-content/uploads/2024/09/IPIS-Annual-report-2023.pdf>

## New on the Internet

### World Bank Group

**Global Biodiversity Data.** [https://datacatalog.worldbank.org/search/dataset/0066034/global\\_biodiversity\\_data](https://datacatalog.worldbank.org/search/dataset/0066034/global_biodiversity_data)

### Erik Gobbers, Thomas Muller and Stefaan van Wal

**Unconditional Cash Transfers (UCT) in the DRC:** A pilot study assessing the socio-economic effects in an artisanal

mining zone of Maniema Province. Antwerp (IPIS), October 2024. 50 pages. <https://ipisresearch.be/publication/unconditional-cash-transfers-uct-in-the-drc-a-pilot-study-assessing-the-socio-economic-effects-in-an-artisanal-mining-zone-of-maniema-province/>

Download PDF (12.1 MB): [https://ipisresearch.be/wp-content/uploads/2024/10/20241014\\_IPIS-UCT-in-the-DRC\\_A-pilot-study-assessing-the-socio-economic-effects-in-an-artisanal-mining-zone-of-Maniema-Province.pdf](https://ipisresearch.be/wp-content/uploads/2024/10/20241014_IPIS-UCT-in-the-DRC_A-pilot-study-assessing-the-socio-economic-effects-in-an-artisanal-mining-zone-of-Maniema-Province.pdf)

### Group of Experts on the Democratic Republic of the Congo

**Letter dated 31 May 2024 from the Group of Experts on the Democratic Republic of the Congo addressed to the President of the Security Council.** United Nations Security, June Council 2024, S/2024/432. 293 pages.

Download PDF (15 MB): <https://digitallibrary.un.org/record/4053693?ln=en&v=pdf#files>

### ASSODIP, DIIS and IPIS

**The M23 “version 2” – Local stakes, motivations, perceptions, and impacts.** Goma/Antwerp/Copenhagen, April 2024. <https://ipisresearch.be/publication/the-m23-version-2-local-stakes-motivations-perceptions-and-impacts/>

Download PDF (French, 7.54 MB): [https://ipisresearch.be/wp-content/uploads/2024/06/20240403\\_Le-M23-version-2-Enjeux-motivations-perceptions-et-impacts-locaux.pdf](https://ipisresearch.be/wp-content/uploads/2024/06/20240403_Le-M23-version-2-Enjeux-motivations-perceptions-et-impacts-locaux.pdf)

### The Oakland Institute

**From Abuse to Power.** Ending Fortress Conservation in the Democratic Republic of Congo. 61 pages. Oakland (The Oakland Institute) 2024. <https://www.oaklandinstitute.org/abuse-power-ending-fortress-conservation-democratic-republic-congo>

Download PDF (5.61 MB): <https://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/from-abuse-to-power.pdf>



*Fabian Leendertz during his presentation about “Infectious diseases of wild apes and One Health as an approachable solution” at our anniversary meeting in Rostock*

*Photo: Manfred Hartwig*





# BERGGORILLA & REGENWALD DIREKTHILFE



## Report from the Anniversary Meeting in Rostock

On the 15<sup>th</sup> and 16<sup>th</sup> June 2024, 52 members and friends of the Berggorilla & Regenwald Direkthilfe gathered to celebrate our 40<sup>th</sup> anniversary at the Darwineum of the Rostock Zoo.

During the welcome event on Saturday, the Zoo director, Antje Angeli, congratulated us on the anniversary of our organization and presented us with a cheque for 3,500 euros as a token of appreciation for our work. The Rostock Zoo has consistently supported our work for many years. In return, we congratulated the Zoo on its 125<sup>th</sup> anniversary and presented gifts of gorilla wine to the staff and symbolic apples to feed the animals.

Following the usual format, we had invited two external speakers to deliver the first addresses: Johannes Refisch, coordinator of the United Nations GRASP programme, talked via Zoom from Nairobi concerning "The current status of gorillas and how we need to alter our thinking in the future". This was followed by Fabian Leendertz, founding director of the Helmholtz Institute for One Health, whose presentation "Infectious diseases of wild apes and One Health as an approachable solution" clearly defined the dangers of zoonotic diseases and the current status of research.

The following coffee break was very special: Ines Schmeißer and Kerstin



**Left: Antje Angeli, Director of Rostock Zoo, presents a check with a donation of the zoo to Burkhard Bröcker.**

*Photo: Manfred Hartwig*



**Above: Johannes Refisch during his Zoom presentation, below: Claude Sikubwabo**

*Photos: Manfred Hartwig*

Genilke had baked and lovingly decorated four different cakes and two types of muffins to congratulate us on our anniversary. The cakes were delicious! During the break, a slide show about the organization's history and pictures sent in to illustrate "My Mountain Gorilla Moment" were presented.

After the break, the second group of presentations started with a brief report of the board on the activities of 2023 and 2024. Founding member Manfred Hartwig led the trip down memory lane, providing many anecdotes to explain how the organization began. Karl-Heinz Kohnen and Angela Meder talked about the support of the Berggorilla & Regenwald Direkthilfe for the Maiko National Park from 1992 to the present day, as an example of how we work.

One of our most essential employees was also present: Claude Sikubwabo, who began working for us in



Maiko in 1992. Claude introduced himself and his many years of work for the organization in a video translated by Anne-Céline Granjon. To finish, Uwe Kribus showed photos of his visits to the mountain and the western lowland



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gorillas. The event ended with the traditional dinner in the Klock 8 restaurant.

On Sunday morning, Kerstin Genilke and Daniela Rogge introduced us to the apes in the Darwineum, telling us much about the animals, how they are kept and the work the people are doing there.

We thoroughly enjoyed the meeting and greatly appreciated the participants' many congratulations and positive responses. We want to take this opportunity to thank everyone who contributed to the success of this anniversary meeting and all those who have made the association's work possible over the last 40 years, whether through their membership, cooperation or donations.

*The Executive Board of Berggorilla & Regenwald Direkthilfe*

### Our Donors

From May to October 2024 we received major donations by: Ursula I. Albert-Trenkler Herwi, Anita Albersmeier, Alexandra Altmaier, Charlotte Bauer, Andreas Beck and Aida Hanjalic-Beck, Christa Beck, Joachim Paul Rudolf Beck, Michael Beutel, Achim and Birgit Bierther, Dieter and Sigrid Coenen, Sibylle Eck, Cornelia Eichberger, Tim and Sandra Elstner, Elias Ernst, Evangelische Kirchengemeinde Altenbach, Georg Fell, Hermann Ferling, Pascal Fliegner, Jürgen and Irmgard Friedrich, Gaia Nature Fund, Susanne Gressler, Gorilla Gym, Birgit Höfer, Petronilla Hofer, Daniela Huber, Franz-Wilhelm and Annegret Iven, Sieglinde Jansen, Renate Karl, Christian Kleineidam, Walter Klueppel, Torsten Knop, Dennis

König, Rita Koep, Maria Koester, Ulrich Koppenburg, Angelika Krebber, Katja Kresse, Rolf Kürschner, Daniela Lachmund, Renee Läßig, Sabine Margret Lange, Randolph Ledebauer, Natalie Liepe-Linde, Isabella Löber, Marianne Lotsch, Katharina Lutz, Cordula Mission, Michael and Regina Möhring, Maximilian Niegl, Thi Kim Ly Nguyen, Ooe. Landesfischereiverband Fische, Annette Poelmann-Banse, Andreas Postert, Christian Pritscher, Gerhard and Christina Pulfer, Wim Pyckhout, Birgit Reime, Daniela Rogge, Paul and Sylvia Ruoff, Karl-Heinz Schillings, Ines Schmeißer, Anja Schroeder, Eva-Maria Schweikart, Ludwig and Margot Seidl, Stephanie Skolik, Sparkasse Herford, Hartmut Stade, Michaela Steinhauser, Andrea Stütz, Achim Christen and Rita Christen-Stuttgen, Tiergarten Heidelberg, Christoph Tonning, Wilfried Trimborn, VR Bank Schwäbischer Wald eG, Axel Weiss, Wigwam Naturreisen & Expeditionen, Wilhelma, der Zoologisch-Botanische Garten Stuttgart, Klaudia Woede, Ingo Wolfeneck, Brigitte Wullert, Rebecca Zindler, Zoo Rostock, Zoo Saarbrücken. Moreover, we received many donations in the name of late Gerda Aldenhoff who had asked for donations on our behalf after her death.

Many thanks to all donors, also to those we could not name here!



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