

# Gorilla Journal



Grauer's gorillas, found only in eastern Congo, could face extinction in many parts of their range within five to 10 years.

## Grauer's gorillas face steep decline Our protection work is increasing

**Recent reports have highlighted** the extreme survival pressures facing Grauer's gorillas in Congo after two decades of conflict in the region, with their numbers plummeting some 80 percent, down to probably less than 4,000 individuals. Their status is currently being reviewed by the International Union for Conservation of Nature (IUCN) and is expected to be raised to the highest level of "critically endangered" later this year.

Grauer's gorillas live only in the Democratic Republic of Congo, and there are only two areas where their habitat is in a national park, with some protection provided by the Congolese wildlife authorities (ICCN: *Institut Congolais pour la Conservation de la Nature*).

The core of Grauer's gorilla habitat lies in the vast low-altitude Congo forest, but the remaining gorilla populations there are extremely fragmented, due to poaching related to ongoing conflict and the presence of rebel groups, mining, the demand for bushmeat, and unsustainable usage by impoverished communities.

To help address this critical situation, the Dian Fossey Gorilla Fund spent more than a decade working with local communities to help set up community-managed forests for protection of

wildlife. Starting in 2012, we also established a permanent field station in the core of Grauer's gorilla range, and now have three teams of trackers to protect them on a daily basis. We have identified some 14 groups of Grauer's gorillas containing 100-150 individuals, and are assembling a fourth team to explore new areas where additional protection is needed.

We are addressing the Grauer's gorilla crisis using our four-part conservation model, including daily protection, scientific study, working closely with communities, and helping train and build the next generation of conservationists.

And it is working. We know of no gorillas killed by community members in this area since our work started there. Additional communities are asking us to help protect their forests. Our family farms program is underway to help fight severe malnutrition in the area and diminish the bushmeat market (which threatens many species in the forest). And we have plans to increase our Grauer's gorilla conservation program until we are protecting at least 350 gorillas, or about 10 percent of the population.

*Please see page 2-3 for information on how our Grauer's gorilla trackers are protecting this severely endangered species.*



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## Our Grauer's gorilla tracking teams

**The Fossey Fund's successful** conservation model for saving endangered gorillas, like the Grauer's gorillas in eastern Congo, requires teams of dedicated, knowledgeable, strong and courageous trackers. Our trackers at the Karisoke Research Center in Rwanda, all local Rwandans, are a wonderful example of how daily protection can successfully work over the long term to save a species.

In the Democratic Republic of Congo, our gorilla tracking teams based at our Nkuba-Biruwe research conservation site are much newer, but they are already proving to be incredibly effective at playing the critical role in our efforts to save Grauer's gorillas.

Unlike the mountain gorilla groups in Rwanda, the Grauer's gorilla groups we protect and study in the low-altitude forests of eastern Congo are not habituated to the presence of human observers, and for their own safety, that's how they should remain. So our trackers there follow only their trails, keeping a one-day distance behind them.

This makes the tracking even more difficult, as does the type of forest they live in. Mountain gorillas live in a forest with dense shrubs and herbaceous vegetation, where gorilla trails are fairly noticeable due to the disturbances in the vegetation. But the low-altitude Grauer's gorillas live in a mature forest with a clear understory, and where the ground is covered with dead leaves, so signs of the gorillas are harder to find.

Nevertheless, our Congo trackers, all of whom come from nearby villages, have already become experts at following gorilla trails, only a few years after we formed these teams. Our tracking work in Congo is led by our Congo-based program director Urbain Ngobobo and our Grauer's gorilla research director, Dr. Damien Caillaud. Dr. Caillaud established the tracking protocols, guides the data collection, and accompanies the teams when he is in Congo, but this work would be impossible without Ngobobo and Escobar Binyinyi, field research manager, who handle the complex logistics.

### Camping in the forest

Currently, we have three Grauer's tracker teams, each composed of five trackers. We are in the process of forming a fourth team at this time, which will be used to explore new areas for gorilla



**Above, from left, trackers Wasso and Jadot, record data at a gorilla feeding spot.**



**Left, Grauer's gorillas are related to mountain gorillas but much less is known about them.**

protection. The trackers all come from the local communities where we work, and most were recommended by traditional landowners and other local leaders.

Unlike at Karisoke, where our trackers mainly set out each day for tracking and return back to our base station before dark, our Grauer's trackers work in the field for two weeks straight, camping every night in the forest. This is necessary because the few remaining Grauer's gorillas are only found far away from human settlements (about 20 miles from the village where we are based, in this case). So that means when our trackers set out for the two weeks, they must carry everything needed for the whole time, including tents, equipment, rain gear, and food.

Food carried includes rice, sardines, salted fish, canned tomato sauce, and a common African food called "fufu." In this region, fufu is a flour made from cassava roots, which is stirred in boiling water to create doughy sticky balls, to be eaten with sauce plus fish or meat.

We provide our trackers with backpacks to carry all of the equipment and food, but they prefer to carry things in a traditional way. This involves putting the backpack on a wooden basket

### Grauer's gorillas in crisis

- Population down nearly 80 percent
- Affected by hunting and bushmeat market
- Found only in troubled eastern Congo



**Tracker Imani prepares a “makako” to carry equipment into the forest.**

called a “makako,” along with the tents and saucepans, and carrying the makako on their backs.

### **Gorillas are a two-day hike away**

Once the trackers set out, they hike for about two days to reach the area where the Grauer’s gorilla groups we track are located. The teams know precisely where to meet up, because the outgoing team will have sent text messages using a satellite phone to show their last camp location.

The incoming team hikes into the forest, meets the previous team, exchanges information about the gorillas’ locations, and transfers the satellite phone. The outgoing team then hikes back to our field station in the village. With less to carry going back, the return hike usually only takes about nine hours.

The next day, the incoming team starts their regular routine, walking five to eight hours, collecting data on the gorillas and the habitat. They follow the trail of the gorillas, noting what the gorillas have eaten on the way by locating food remains, and noting evidence of other gorilla activities.

The trackers also take photos of various plants if unknown or not documented, and collect some gorilla fecal samples for further genetic analyses to help verify the identity of the groups that are being followed.

Hiking for the day stops when the team finds the most recent gorilla nest site (used by the gorillas the previous night — gorillas make new nests in new areas every night). These Grauer’s groups walk about 1.5 kilometers per day, three times the distance walked by mountain gorillas.

After some months of training, the trackers are now experts at following the gorillas’ trail. If they temporarily lose the track, they use walkie-talkies, GPS, and compasses to spread out and regain the trail, and they always succeed.

Our Grauer’s gorilla trackers come from different backgrounds. Some were hunters, miners or living off the land, in an area that has faced 20 years of conflict, with millions of people dying, and where there is extreme poverty, lack of food, and few if any basic services, like electricity. There are almost no traditional “jobs” as well, and no banking system for money.

So although our trackers get paid in money, they generally use a traditional system to save and “invest” the money for their futures. This involves giving much of their monthly salaries, on a rotating basis, to just one person on the team, so that that person can do something important with it, such as build a tin roof for his house, pay school fees for his children, or start a fish farm.

Tracker Jadot has been with our tracking team for four years now, and comes from the family who has traditional ownership of the land where we follow the gorillas. He is especially knowledgeable about the plants in the forest and is a very skilled tracker. Another member of his family, named Imani, also works with our teams.

Team leader Wasso comes from a different village, 60 kilometers away from our station. He moved to Walikale and rents a house there for his family. He also studies at a local university (*Institut Supérieur de Développement Rural*) and requested Dr. Caillaud to lecture there on conservation and ecology, which he began this year and will continue in the future.

### **Trackers are the community**

“The exceptional dedication of our trackers to their work is explained by two factors: first, the forest is truly their forest, owned by their families for many generations; second, we make sure they are involved in the planning of all our activities. We need and value their input and consider them as partners more than as employees,” says Dr. Caillaud.

Indeed, working entirely with local communities is a key factor in the success of conservation, especially in this area that has suffered so much. Due to the amazing work of these gorilla trackers, communities can see that the forest ecosystems can be restored and benefit everyone. There have been no reports of gorilla deaths by local community members where we work since the programs started. Traditional landowners are working to reduce or prevent hunting on their lands, and some wildlife, such as monkeys, which were rarely seen before, are now seen on a regular basis.

As we expand our programs, we look forward to working with more communities to ensure that more gorillas, and all the biodiversity that shares their habitat, are protected. The success of these Grauer’s gorilla trackers is helping to save not only gorillas but whole communities.

*Due to the amazing work of these gorilla trackers, entire communities can now see for themselves that the forests can be saved, the animals can return, and the ecosystem restored in order to benefit everyone.*



## Mountain gorilla twins growing well

## Fossey Fund staff records their progress

**Twin births are rare** among mountain gorillas and they can face special challenges in their early days, so Dian Fossey Gorilla Fund staff have been closely observing the twins born to mother Isaro in January of this year. Isaro's twins are only the third set of surviving twins among the known groups of mountain gorillas.

Up to about 1 year of age, gorilla infants are completely dependent for care from their mothers, who will not allow others to offer much assistance.

Some of the extra challenges faced by 16-year-old mother Isaro have included carrying both of them (initially done by holding them close to her chest, which could encumber her walking and keeping up with the group), meeting their feeding needs equally, and facing the extreme rainy season and cold weather that occurred early in the spring and at the high-altitude areas where their group was ranging. Roughly 25% of single infants don't survive their first year of life, and we expect the rate for twins to be just as high, if not higher, though there are not enough cases to know for sure. Luckily, Isaro is an experienced mother and previously raised two offspring successfully.

As the twins now approach their sixth month of life, we can report that they seem to be doing well. They have been growing at the same rate, so we know that Isaro has been doing a good job managing their feeding needs equally. However, their increasing size means Isaro now has additional challenges to face: how to carry these growing infants, who are increasingly agile and curious.

### Mother Isaro creatively handling challenges

In the first three months of their lives, Isaro was able to hold both of the twins in one arm and use the other arm to walk (gorillas normally walk on all fours). But the increased weight of the



**Mother Isaro has been handling the twin infants well, meeting their feeding needs equally and facing the cold and rainy weather.**

growing twins is now forcing Isaro to shift their position more often while she is walking.

But now even this is getting more difficult and so Isaro has to redistribute them frequently. She has also been seen carrying one infant in each arm and walking bipedally (on only two limbs)

for a few meters, or using vegetation to help her maintain balance! At other times, our staff has observed her putting one of the infants on her back and holding the other one with her arm, and walking on three limbs. But this solution can't yet be used for a long walk because she does not allow the infants to hold on

by themselves for very long.

In some ways, the heavy rains in the park turned out to be helpful during the past two months, since the gorillas did not travel much during this time, spending lots of time close to each other to maintain warmth. Although the weather was cold, the lack of group movement also allowed Isaro to save energy due to the decreased traveling.

### The rest of family and group

Isaro's older offspring, Keza (7 years old) and Icyororo (almost 4 years old) are also spending a lot of time with their young sibling twins, and showing great care for them. They all stay together during resting time, with Keza and Icyororo frequently grooming the twins, while also apparently hoping for some attention from Isaro.

Isaro's family members are central in the group and are often near dominant silverback Isabukuru. He does not engage physically with the twins yet, since they are still too young for this, but staff believe he will once they grow up a bit more, since he is known for being a silverback who gets actively involved in caring for infants (at least compared to other silverbacks).

Isabukuru's group has been growing and now has 20 members. Second-ranking silverback Kubaha helps in the management of the group but more often keeps a peripheral position. Young males Ntaribi and Gasore are also peripheral, with the three males sometimes creating a small subgroup. It's even possible that this subgroup may become permanent in the future. But for now, we hope that Kubaha stays with the group, to help ensure the protection of the entire group and especially the young twins.

### Trackers say twins are a 'blessing'

Fossey Fund Research Assistant Didier Abavandimwe was the first of the staff members to see the twins. "I couldn't believe my eyes because since I started working with the Fossey Fund in 2009, I had never experienced such an amazing event in the gorilla groups we monitor," he says. "When I saw them, the



As the twins grow, it is becoming more of a challenge for mother Isaro to carry them. Sometimes she grabs nearby vegetation to help maintain her balance, as in the photo below.



first thing that came to my mind was that the birth of Isaro's twins is a blessing for everyone who works so hard for the survival of mountain gorillas in general, and Isabukuru's group particularly. It's almost like a reward, an encouragement, an excitement..."

"The birth of the twins is a gift in many ways," says Gorilla Program Manager Veronica Vecellio. "First for the pure beauty of nature, but also to remind us

how vulnerable and precious gorillas are by just looking at the dedication of Isaro, thriving in such a severe environment with two babies to take care of. It's a rare opportunity to observe closely the maternal investment and to compare with single-borns and the other surviving twins. For Isaro, everyday will be a challenge to face and we really hope the twins will do well in this delicate period of their lives!"



# Fossey Fund trackers and scientists help count gorillas

## Census to show mountain gorilla status

Since mountain gorillas are critically endangered, it is important to keep track of their numbers and determine whether the population is stable. Mountain gorillas live in two areas, with a total of about 880 individuals at last count. About 480 of them live in the Virunga mountains, which straddle the countries of Rwanda, Uganda and the Democratic Republic of Congo. The Dian Fossey Gorilla Fund provides daily protection and monitoring for about half of the mountain gorillas in the Rwanda section of the Virungas, or about 115-120 gorillas.

The last census, or counting, of the gorillas took place in 2010 and a new census has been underway since October 2015. This time, the census effort includes two complete sweeps. This means that 12 teams, consisting of five to six participants each, camp out and comb the forest twice, on planned routes, searching for gorilla night nests (which are made fresh by the gorillas each night and used only one time), collecting and preserving gorilla fecal samples, and recording other information. The fecal samples are then genetically analyzed to determine each unique individual's gender and identity.

A number of Karisoke staff have been involved in both sweeps of the current census, including Dr. Winnie Eckardt, Fossey Fund research manager at Karisoke, who served as an instructor during the training process and spent several days in the field with the teams as they started the process each time.

This spring, Dr. Eckardt started off on the Congo side of the Virungas, which covers the largest forest area and is home to the majority of unhabituated gorillas (whereas most of the gorilla groups in Rwanda are habituated to the presence of human observers, such as the Fossey Fund tracker teams).



Census staff camp in the forest throughout the process. This spring they encountered a heavy rainy season.



Census staff collect fecal samples from the gorillas' night nests. The samples are later analyzed genetically, to determine each gorilla's gender and identity.

Here are some impressions from Dr. Eckardt:

"After 10 years working with the Virunga mountain gorillas, this was my first time going into the park on the Congo side, which felt like adding a whole new chapter to my experience and knowledge of this population and their habitat. I embraced the opportunity, spending two days with some of the best field staff from ICCN (the Congolese wildlife authorities), along with staff from the other two countries, and getting a crash course in gorilla and forest life on the Congo side.

"Unlike Rwanda, the forest in Congo still has extended areas that are dominated by mixed forest, a vegetation zone that was almost completely converted to agriculture on the Rwandan side. Thus, many of the gorillas' food plants, in this mixed forest, are different, such as the wild banana, with gorillas eating parts of the large leaves. Even the smell of the forest is different. But mixed forest also means being on high alert

**There are many ways to help save gorillas through the Fossey Fund's programs.** You can **1)** become a member, **2)** join our Adopt-a-Gorilla program, **3)** make a donation, **4)** include the Fossey Fund in your will, **5)** follow us on social media at "savinggorillas," **6)** become a sponsor and more! *For ideas, please visit our website: [gorillafund.org/takeaction](http://gorillafund.org/takeaction)*

for ant attacks! At night this means closing the tents up tight in case of ants swarming through the camp!

“The first day in the field is the most exhausting, because all the camping and census equipment has to be transported and distributed. At least 50 porters had to be hired from nearby villages, many of them women, and each carries up to 25 kg to the forest camp, which can be up to a three-hour hike. The women clearly enjoyed competing with the men to show they are just as capable, and we often heard them saying to each other ‘iyambere,’ which means ‘first,’ while running toward the front of the caravan. This reminded me of photos from Dian Fossey’s time, when the Karisoke Research Center was still located deep in the forest and supplies had to be transported to the research site regularly.

“As during the first sweep, it is very encouraging to see how strongly the team members bond, despite different nationalities, education, languages and customs. They grow into a strong unit, ready for the challenges involved during weeks of hard census work and forest life. They get to know each other’s strengths and weaknesses and tie those into their work as a team to make it work optimally. The team members are eager to learn from each other and there is a great willingness to share skills and knowledge, as it makes the team stronger.

“And one cannot forget the camp cooks, who serve a key role and sort of function as camp “parents,” making sure the



**The Fossey Fund sent some of its best trackers and research assistants to participate in the census, while Karisoke research manager Dr. Winnie Eckardt served as an instructor and trainer.**

**Shown here, from left, the Karisoke team in the March census work: Ildephonse Gatete, Jean de Dieu Ndayisenga, Phocas Nkunzingoma, and Dr. Eckardt.**

camp is functioning, food is prepared in time each morning and evening, collecting and boiling water, maintaining forest pits and more.

“Our first few days were very productive, even in the heavy rainy season, finding nests, a well-known habituated solitary male gorilla (Mukunda), some snares, and even signs of elephants.”

This second sweep of the mountain gorilla census has now been completed, but analysis of the samples is expected to continue throughout the year, with final results available in 2017.

*The Dian Fossey Gorilla Fund is grateful to Oracle for helping us upgrade our data collection and management system, thus strengthening our nearly 50-year database of information about the gorillas.*

## News and notes

■ **Fossey Fund President & CEO Dr. Tara Stoinski has just been named** one of Atlanta’s “Women Making a Mark” by *Atlanta* magazine. Dr. Stoinski also serves as our chief scientific officer and is a leader in ape conservation efforts.

■ **The Fossey Fund recently won a grant from the European Outdoor Conservation Association (EOCA)**, which involved votes from people around the world as well as EOCA members.

■ **Our biodiversity research program manager at Karisoke, Deogratias Tuyisingize, has started a Ph.D. program at the University of Rwanda.** Deo is a leader in the study of endangered golden monkeys and will compare their status in two national parks for his doctoral research.

■ **A recently published journal article by our scientists, in collaboration with Emory University and Nippon Vet-**

**erinary and Life Science University (Tokyo), reported the discovery of two new species of microbes — living inside gorilla intestines.** One of them has been named after Dian Fossey.

■ **Our Congo program director, Urbain Ngobobo, is presenting lectures on natural resource management and sustainable development at a local university near our Grauer’s gorilla field site in eastern Congo.**

■ **Six members of our staff will attend the biannual congress of the International Primatological Society held this summer in Chicago.**

■ **Giving tip:** Small donations have the power to make a huge difference. Help us protect endangered mountain and Grauer’s gorillas for as little as 32 cents a day. *Sign up* to give \$10 per month at [gorillafund.org/monthly](http://gorillafund.org/monthly)

## 'Murakoze: Thank you'

### Why we give

**Gene and Lynn Monroe** have been supporters of the Dian Fossey Gorilla Fund since 2007 and their relationship with us now focuses on a very special effort: helping our trackers, field staff and other staff in Rwanda to get college educations! They have a special interest in education, as both were teachers before their retirement. Since retiring, they've pursued their interests in nature and conserving and protecting wild places. They recently formalized their giving with the Fossey Fund by helping to establish a new "College Scholarship Fund." They both feel very fortunate that they were given the encouragement and opportunity by their parents to obtain a college education and so wish to honor their parents in this way. Here are their words about why they give:

"We began modest donations to the Dian Fossey Gorilla Fund in 2007 and, as members, enjoyed reading the *Dian Fossey Gorilla Journal* newsletter that we regularly received as a benefit. In 2015, the spring issue of the newsletter arrived at an opportune time, just when we were looking for a way to support both wildlife and education through a memorial donation.

"This issue of the *Gorilla Journal* not only emphasized the Fossey Fund's gorilla protection programs but also featured a whole array of their educational programs, including those for primary school students, college undergraduates and even for staff development. We were impressed that all these successful wildlife conservation programs also included assisting local people with education and health. The people who live there are so vital for saving the gorillas and their environment. And, we loved the motto 'Helping people, saving gorillas.' So we contacted the Fossey Fund and asked them to suggest additional educational opportunities that would benefit both the gorillas and the local people.



**Gene and Lynn Monroe are helping Fossey Fund trackers and other field staff go to college.**

"Both of us are passionate about nature and conserving the natural world. And we were each lucky enough to continue our education and become teachers. So, we wanted to make a rather significant donation to support this combination of wildlife conservation and education if we could. And since we were fortunate to have parents who encouraged and gave us the opportunity to continue with our education, we wanted to dedicate the donations to our parents.

"The Fossey Fund greeted our inquiry with enthusiasm and cooperation, and soon, after considering various options, we worked out a program to offer college scholarships to field staff beginning in the fall 2015 school year. The decision was to offer college scholarships to 15 staff in this first year, paying half the cost of tuition through the four or five years they would need to graduate. Colleges in the region offer programs during weekends and evenings, so that the staff who become students are able to continue their full-time jobs with the Fossey Fund at the same time.

"The students have selected courses of study from the variety of different programs available, including public health, engineering, economics, travel and tourism management, law, accounting, education, and languages. All 15 are regularly attending classes so the program is very successful!

"We believe that education is often the key to a better, more rewarding life and a more educated society may lead to a better community for all. Education that also benefits gorilla conservation is a huge plus.

"We are also delighted with the dedication and professionalism of the management at the Dian Fossey Gorilla Fund, both in this country as well as in Rwanda. We feel privileged to be part of the Fossey Fund's effort to protect and conserve these magnificent gorillas and their part of the world."

### Thank you to our Collaborating Funders for their extraordinary support in 2016

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