

THE
DIAN
FOSSEY
**Gorilla
Journal**

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Celebrating women's month

From science to daily protection to education, women lead the way in gorilla conservation

By **Tara Stoinski, Ph.D.**
President and CEO/Chief Scientific Officer

Here at the Dian Fossey Gorilla Fund, we are perfectly poised to celebrate Women's History Month in the U.S., as well as International Women's Day around the world. Our founder, Dr. Dian Fossey, was one of the most well-known female scientists of our time, recognized for her scientific breakthroughs, her courage and her persistence. Fifty-two years later, our organization is still led by many groundbreaking women and continues to incorporate women into every aspect of our work.

Women have truly made history in our field, whether engaged in scientific studies, on the ground protecting gorillas, educating others about conservation, or involving and impacting even more women in conservation through community efforts, such as farming and small-scale livelihood projects. (See

stories on pages 2 and 6).

Our work is also significantly supported by a number of female celebrities and philanthropists, including: our long-term honorary chair Sigourney Weaver; Ellen DeGeneres and her wife Portia de Rossi; our board chair Judith Harris; and 40+ year major donor and former board chair Sandy Price, who knew Dian Fossey personally.

It's especially heartening that many of our younger African female staff are also rising to prominence, like our research assistant Nadia Niyonizeye, who is featured in a television documentary airing this year on Earth Day, about women following in the footsteps of Dian Fossey and the other leading female primatologists of the time.

I am lucky to have worked in the field with the gorillas, like Dian Fossey did, so I can't miss an opportunity to acknowledge all the amazing gorilla females we observe every day – for their strength, protection of their youngsters, and for keeping gorilla groups cohesive and thriving (See story on page 4).

I believe strongly in the theme of the 2020 International Women's Day – "An equal world is an enabled world" – and am proud that our organization embodies and acts upon this sentiment in every way. ■



Some of the Fossey women:

- 1) President and CEO Dr. Tara Stoinski
- 2) Founder Dr. Dian Fossey
- 3) Research assistant Nadia Niyonizeye
- 4) Research assistant Gudula Nyirandayambaje
- 5) Tracker Alphonsine Nakure

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Women following in Fossey's footsteps . . .



Nadia Niyonizeye From student to scientist to film star

Nadia Niyonizeye first came to the Fossey Fund in 2015, as a biology student from the University of Rwanda taking a study field trip with our staff at the Karisoke Research Center. She learned about the many opportunities the Fossey Fund offers for both undergraduate students and recent graduates and says her thirst for being part of the Fossey Fund team and gorilla conservation grew from there.

Now, Nadia is a full-time researcher with the Fossey Fund, and part of a major collaborative scientific project we have with The George Washington University. She treks the forest to take specialized photos of the gorillas, which are then used to measure their growth and devel-

opment over time.

Recently, Nadia also became a television star, when she was chosen to be featured in a Canadian Broadcasting Company documentary called “She Walks with Apes.” This show tells the story of the “trimates,” the three women who went into the forests to study apes in the 1960s: Dian Fossey, Jane Goodall, and Birute Galdikas.

The film also focuses on a new generation of young women following in the footsteps of these pioneering field scientists, and Nadia was chosen to represent Dian Fossey’s legacy.

“I appreciate women working in the field like Dian Fossey did,” says Nadia. “Regardless of how difficult the work is, it brings joy and satisfaction. Dian Fossey is the person I look up to when it comes to dedication and resilience.” ■

Dr. Tara Stoinski Fossey Fund president and CEO/chief scientist

Tara Stoinski started at the Fossey Fund as a scientist in 2002, and has led the organization as president and CEO/chief scientific officer since 2014.



As the Fossey Fund’s leader, Tara is responsible for the daily management of the entire organization. As a scientist, she plays an active role in numerous scientific studies with our own scientists and with collaborators from around the world.

“I am honored to be able to help carry on the legacy of Dian Fossey and to work with the many other women who are making major contributions to gorilla conservation,” she says.

Dr. Winnie Eckardt Research manager in Rwanda

Winnie has been with the Fossey Fund since 2004, first as a research assistant, then conducting her doctoral and post-doctoral research.

She has been our research manager in Rwanda since 2015, while also leading our efforts to build scientific capacity among our staff and all the Rwandan college students who come to us each year.

“Our programs for Rwandan college students include more and more women every day,” Winnie says, and these women will help shape the future of conservation in Rwanda.

‘I appreciate women working in the field. Regardless of how difficult the work is, it brings joy and satisfaction. Dian Fossey is the person I look up to when it comes to dedication and resilience.’

— **Nadia Niyonizeye, Fossey Fund researcher***

*Nadia appears in “She Walks with Apes,” airing on BBC America, April 22.



and beyond

Alphonsine Nakure Long-time gorilla tracker

The Fossey Fund not only has a long track record of women scientists and researchers, but also has women serving as trackers in the forest, protecting the gorillas every day.

Trackers are at the front-line of conservation and work in rugged, harsh conditions, including high altitudes, dense forest and difficult weather.

Alphonsine Nakure has been a gorilla tracker with the Fossey Fund since 2008, after working as a farmer. She has helped protect many of the gorilla groups that we follow over the years, playing a direct role in



the success and growth of the mountain gorilla population.

“Being a woman gorilla tracker gives me a unique opportunity,” she says. “It’s amazing to be able to take care of these wonderful mountain gorillas and I’m proud of the work I’ve done to keep them safe.”

Alphonsine, who is a mother of three and now awaiting her fourth, adds that she is proud to have such an important job, which helps her care for her own family while also protecting the gorillas every day.

“I wish that one day all people will understand that wild-life should live safely in their environment,” she adds. ■

Veronica Vecellio Gorilla program senior adviser

Veronica joined the Fossey Fund in 2005 as a research assistant, after working with apes in other parts of Africa. She became our gorilla program manager in 2007, supervising our daily gorilla protection operations in Rwanda.

In 2017, her work was expanded to include regional public relations and field communications, coordinating with our U.S. team in Atlanta.

“As a child, I always dreamed of working in Africa one day, and was so inspired by the film ‘Gorillas in the Mist,’” Veronica says. “The gorilla groups that Dian Fossey studied were always a source of inspiration to me and I feel so lucky to be able to carry on the model that she started.”



Veronica Vecellio, left, and Dr. Winnie Eckardt in Rwanda.

Sarah Tolbert Community engagement manager

Sarah directs our ever-growing community programs in Rwanda and Congo, which now range from community farming to small-scale animal husbandry, clean-water projects and a bamboo nursery. These projects help people living

near gorilla habitat while also reducing pressures on the forests. Many are led by women.

“It has been amazing to see the women involved in our projects become more confident in playing a role in conservation, especially in Congo,” says Sarah.

Gudula Nyirandayambaje Research assistant

Gudula is a research assistant who started with us as a college student, then completed a scientific internship at Karisoke to finish her degree. Now, she is with the gorillas every day, collecting information for our long-term database and scientific projects. “I am thankful to Dian Fossey for starting gorilla conservation and research,” she says. “Her work is of such great value!” ■

Gorilla females play crucial roles in group success



Matriarch Effie, right, in 1976, with one of her early offspring, Puck. Effie’s “clan” became the largest wild mountain gorilla family ever recorded.

Although gorilla groups are led by a dominant silverback (adult male), who determines the group’s daily travels and certain other activities, adult females play crucial roles in the success of every group.

Of course, having numerous females is critical to the stability and growth of the mountain gorilla population. Adult females don’t give birth while they are nursing their young, which takes up to four years. With more females, the better it is for all mountain gorillas!

And even though they are largely peaceful, female gorillas do have hierarchies within their groups, with dominant females having preferred access to feeding spots and prox-

imity to the dominant male. Hierarchy among females is regulated by several factors, such as number of offspring and relationships with other group members, especially the dominant silverback. All of this helps shape the groups in many ways.

Matriarch Effie

Ever since Dian Fossey launched our in-depth studies of mountain

gorillas in the 1960s, our field staff has observed many historically significant females, but none perhaps as important as matriarch Effie, who was first seen by Dian Fossey in 1967. Effie lived in Fossey’s study group 5, which later transformed into Pablo’s group and is still monitored today.

Fossey was greatly impressed by the strong maternal instincts of the female gorillas she observed and none more so than Effie. One example occurred when Effie swiftly rescued her daughter Poppy from a tree, where the youngster had fallen and become entrapped in a strange hold between branches. Fossey also noted Effie’s “dependable tem-

perament,” which not only provided security to her offspring but helped her maintain top rank in her group.

Effie already had two offspring when Fossey first saw her, soon to be followed by more daughters, which eventually created an important extended family. Many of her daughters became strong leaders and productive mothers in their own groups, including Puck, Tuck, Poppy, Maggie and Mahane.

Eventually Effie’s offspring and subsequent generations came to be known by Fossey and our subsequent researchers as the Effie clan, or more formally as the Effie matriline. It is the largest wild mountain gorilla family we have ever recorded and one which is still going strong 53 years after Effie was first seen.

Many of Effie’s female descendants are now in groups monitored by the Rwanda park authorities, such as the Susa group. In the groups currently monitored by the Fossey Fund, we have 22 members of Effie’s matrilineal family. And that’s without counting all the males who are also related to her!

Effie’s grandson, the late Cantsbee, became the most successful silverback of our time, leading the largest group ever and siring the most offspring. Another grandson — Mafunzo — is still a leading silverback today. And Effie lived until 1994.

Current Effie descendants

The Fossey Fund monitors around 40 adult females currently in the groups that we protect and study every day. The number varies slightly due to normal events, such as births, deaths, and transfers between groups.

For example, last year, two Effie granddaughters — 26-year-old Ukuri and 14-year-old Ishyaka — transferred groups several times, and in the process helped to establish two new groups, which we now

monitor every day (Mutobo group and Urugwiro group).

Ukuri is with the newest group, Urugwiro, after making several transfers. She is a mother of three offspring, who live in her former groups. Ukuri has always had high status, following in the footsteps of grandmother Effie, and so we expect that she will become dominant in Urugwiro's group as well.



Mother Makuba, who is an Effie granddaughter, surprised us when her group was briefly ranging in Rwanda where we work, after many years in Congo.

Ishyaka was born to mother Poppy in Susa's group and then transferred to Pablo's group, before she had offspring. She then had one youngster, Akariza, who moved with her to Kureba's group as they split from Pablo's group after leader Cantsbee died. Ishyaka now is with the new Mutobo group, after her many moves, though Akariza remained behind in Kureba's group.

The best female event of the year was when we saw Effie granddaughter Makuba appear in Kuryama's

group. Makuba had transferred to an unmonitored group in 2007, and we had not seen her since then. But during the 2010 and 2016-2018 mountain gorilla censuses, we received DNA reports showing that she was with an unknown group ranging outside of our area, in the Democratic Republic of Congo. Then in March 2019 we saw her with Kuryama's group, which also ranges

in Congo but paid a brief visit to our area. And the good news was that she had a new infant with her.

Other leading females

The historic Pablo group currently has eight adult females, with the two eldest – Gutangara, age 36, and Mukecuru, age 39 – in the dominant positions at this time, after two other important females left the group in 2018. Both Gutangara and Mukecuru had moved to Pablo's group in 1995 from their

original group (Susa).

Gutangara is currently the most successful female we monitor, with seven offspring, all of whom are thriving. Her success is at least in part due to her family bonds. Four of her offspring still live with her in Pablo's group and they spend a lot of time together. She is also the mother of the two silverbacks who recently formed their own new groups: Mutobo and Urugwiro.

Also exciting is that both Gutangara and her daughter Shishikara gave birth in 2019, only a month apart. This allows us to observe how close family bonds may help and influence the raising and development of their infants. We assume that the support of family members will speed up the youngsters' maturation and weaning, helping them to become independent more quickly than usual.

Facilitating genetic diversity

Female gorillas also have a major responsibility in helping to keep the gene pool as diverse as possible, which they do by transferring among groups as they become adults, so as to find new, unrelated males with whom to mate.

Last year we observed an unusually high number of female transfers – 35 in total, involving 16 females. Twenty-one of these moves were related to the formation of the two new groups formed by Mutobo and Urugwiro, as well as to the ending of one group (led by Kubona, who became a lone silverback again).

This highlights both the independence and the crucial importance of females as they move from group to group, thus facilitating genetic diversity in the population. ■

Hierarchy among females is regulated by several factors, such as number of offspring and relationships with other group members, especially the dominant silverback.

Dominant females have preferred access to feeding spots and proximity to the dominant male. They also reproduce more quickly, likely because of their access to resources.



Working with local women helps families and conservation

The Fossey Fund has many female staff members leading and working in all aspects of our conservation efforts (See story on pages 2-3), but we are also especially proud that our community conservation projects purposefully include local women and women’s associations near gorilla habitat.

In addition to helping disadvantaged women in the communities where we work, these projects are also aimed at making sure that women have a voice in conservation and in making conservation-related decisions.

We have mushrooms!

One of newest projects involving Rwandan women living near the gorilla forest is a mushroom-growing effort, which has just resulted in its first harvest. The mushrooms will not only help improve the nutrition of these families, who used to depend on hunting for food, but will also give them valuable additional income as they sell their surplus.

And bamboo!

We’re also excited about our bamboo project, designed to help reduce illegal cutting of bamboo in the park where the gorillas live. The goal is to grow about 10,000 bamboo seedlings that will be used locally for bean poles, household construction and mats, and also to transform the bamboo into higher-end products to sell for additional income.

We are working with two cooperatives, with a total of 64 members, many of whom are women, to set up and manage a bamboo nursery. The seedlings are now ready to transplant.



Growing mushrooms, above, and bamboo, below, are among the projects helping to empower local women.



Committee women in Congo

In Congo, where we work with local communities that are managing the forests, we have encouraged the participation of women in meetings, projects and decisions related to forest management. Food secu-

rity is a major issue in these communities, so the women recently formed a gardening group to grow vegetables for their families as well as some crops, such as peanuts, that they can use to raise income and start additional projects.

Throughout the gardening season, our community team is leading a variety of trainings to help these women, including making compost, using natural pesticides, creating raised beds, and other sustainable agricultural techniques. Given the poor nutritional quality of rainforest soil, such training is critical to ensure these projects are successful in the long term.

We also provide workshops on project management, basic health information and work strategies. And we continue to help a women’s association in raising chickens, in addition to other ongoing small-scale farming ventures.

Measuring the impact

“Even though emerging research demonstrates forests and wildlife are better protected when women are involved in conservation projects and decision making, women continue to be underrepresented, especially when facing obstacles to education” says Sarah Tolbert, Fossey Fund community engagement manager. “That is why we take a gendered approach to our community conservation projects.”

To make sure our projects are leading to positive changes, we also measure the effects, using household surveys on family well-being and nutrition, as well as health and conservation knowledge. In Congo, our team has completed household surveys with more than 500 people this season. ■

Bwindi mountain gorilla census shows increase



The mountain gorillas protected by the Dian Fossey Gorilla Fund live in the Virunga mountains of Rwanda, Democratic Republic of Congo and Uganda. And due to daily protection their numbers, while still tiny, have been increasing, based on the latest census counts.

There is also another, separate population of mountain gorillas living in Uganda's Bwindi Impenetrable National Park and the adjacent Sarambwe Nature Reserve in Congo. And the great news is that this population is also increasing.

A complete count – or census – that was started in 2018 has now been fully analyzed, showing an increase in numbers from 400 in 2011, to at least 459 individuals now. Added to the latest Virunga gorilla census count of 604, that means the total number of mountain gorillas is now at 1,063.

While this is still a small and endangered population, the results are remarkable, says Fossey Fund CEO and chief scientific officer Dr. Tara Stoinski. “Given the severe declines other wildlife populations are facing, this is amazing news. It’s a real testament to the high levels of effective and intensive conservation measures happening for both of these mountain gorilla populations,” she says.

In addition to their small numbers, mountain gorillas still face a variety of dangers, including disease, climate change and habitat encroachment. However,

Fossey Fund tracker Clement, far left, was one of our staff who helped with the latest Bwindi gorilla census.

40 years ago, there were just 240 mountain gorillas left in the Virungas, with an unknown number in Bwindi. In fact, Dian Fossey feared they would all go extinct by the end of the last century.

“The latest census results show what a concerted effort by multiple stakeholders can do to reverse a seemingly hopeless situation,” says Dr. Stoinski. “It takes hard work by community members, government leaders and conservationists – but it can be done.”

Fossey staff helps with census

The Bwindi census occurred in two sweeps in 2018, the result of a large collaborative effort among the national park authorities from all three countries where mountain gorillas are found, as well as conservation organizations like the Fossey Fund that work in this region.

Fossey Fund trackers Prosper Kaberabose, Clement Tuyishime

Kagaba, Olivier Hodari and Phocas Nkunzingoma joined the census teams, camping in the forest and trekking 12 hours each day to locate evidence of gorillas. The Fossey Fund’s Rwanda research manager Dr. Winnie Eckardt served as a co-instructor in the initial training phase and helped co-author the final report. ■

Editor’s note: The 2018 Bwindi-Sarambwe population surveys of mountain gorillas were conducted by the Protected Area Authorities in Uganda and the Democratic Republic of Congo (Uganda Wildlife Authority and l’Institut Congolais pour la Conservation de la Nature) under the transboundary framework of the Greater Virunga Transboundary Collaboration.

The census was supported by the Rwanda Development Board, International Gorilla Conservation Programme (a coalition of Conservation International, Fauna & Flora International and WWF), Mammalian Ecology and Conservation Unit of the UC Davis Veterinary Genetics Laboratory, Max Planck Institute for Evolutionary Anthropology, The Dian Fossey Gorilla Fund, Institute of Tropical Forest Conservation, Gorilla Doctors, Conservation Through Public Health, Wildlife Conservation Society Uganda Country Office, WWF Uganda Country Office, and Bwindi Mgahinga Conservation Trust. The census was funded by Fauna & Flora International, WWF, and Partners in Conservation at the Columbus Zoo & Aquarium.

Daily protection is crucial, but gorillas still face dangers such as climate and habitat pressures.



Designing, engineering, testing, prepping



Campus workers and families gathered in December for the holidays.

It's been a year since the ceremonial groundbreaking for the new home of our gorilla conservation work in Rwanda – the Ellen DeGeneres Campus. And we are well underway, with our partner, MASS Design Group, as well as engineers, surveyors, environmental specialists and other experts, making exciting progress every day.

We spent much of 2019 doing detailed work on finalizing design and engineering plans for the entire site, including materials to be used, environmental and safety standards, landscape planning, and even geological and hydrological considerations.

And now we're all hands on at the beautiful 12-acre site, nestled next to Volcanoes National Park.

Recent months have been focused on fully mobilizing and preparing the site, which has included hiring and training local community members as workers (75 so far) and building

facilities for them, such as a canteen and toilets. And of course we're continuing to engage with local governments to keep them updated on our progress.

Construction highlights

- Creating access roads to the site for moving materials
- Fencing the entire site, which involved digging by hand through volcanic rock
- Excavating foundations for the various buildings
- Starting a nursery for more than 150,000 native plants to be used to re-forest the campus
- Developing and designing the main elements of the public exhibits
- Building a fabrication workshop for masonry, metalsmithing and other preparation of raw materials.

For more information, please visit our website at gorillafund.org

How to build your own conservation legacy

There are many vehicles that allow you to provide for your loved ones and also make a planned gift to the Dian Fossey Gorilla Fund:

- wills and living trusts,
- life insurance policies,
- retirement plan required distributions,
- bank and investment accounts,
- gifts of stock or securities, and
- donor-advised funds.

Also consider qualified charitable IRA distributions

Qualified charitable distributions allow people ages 70½ or older to instruct IRA trustees to make transfers to charity without incurring taxable income on those amounts, up to \$100K per year.

To learn more, please contact Shari Henning: shenning@gorillafund.org

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