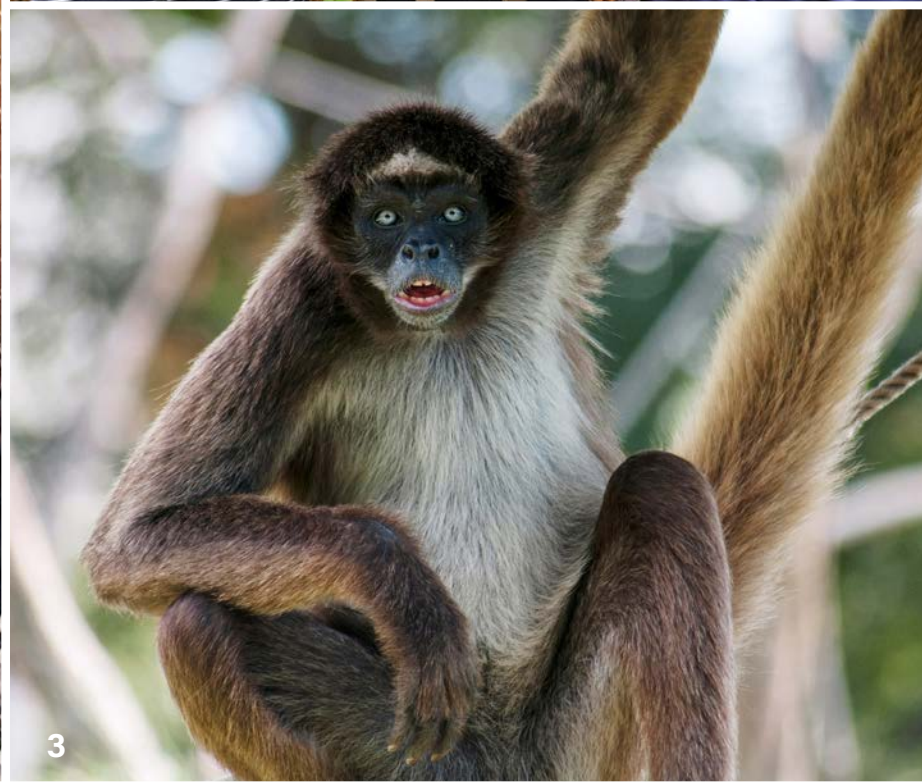




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FROM **COMBAT** TO **CONSERVATION**

After half a century of armed conflict, Colombia's ex-guerrillas have no war to fight. Their new mission: preserving biodiversity in the jungles they occupied for decades.

BY ADDISON NUGENT

Deep in the Colombian Amazon rainforest, dozens of sweat-soaked men and women weave through a maze of ceiba and rubber trees. Armed with machetes, they hack through vines as thick as saplings. They move in utter silence, eyes squinting in the dim light. They approach their mission — cataloging and protecting endangered species — with intent focus. A few years ago, these former members of the guerilla group FARC might have been tracking enemy soldiers or preparing to kidnap a political prisoner. Now their targets are far more elusive: giant river otters, nimble brown spider monkeys, Dracula orchids with black petals and fanglike protrusions, the riotously colored Flor de Mayo.

In 2016, after half a century of armed conflict, the Revolutionary Armed Forces of Colombia (in Spanish, *Fuerzas Armadas Revolucionarias de Colombia*, or FARC) signed a peace treaty with the Colombian government. Emerging from the

rainforest they had occupied for decades, the former guerrilla fighters were suddenly confronted with the question: “What now?” Part of the peace agreement stipulated that the Colombian government support the 14,000 ex-FARC members financially for several years; after that, they must live independently.

So far, former combatants have faced enormous hardship on the road back to civilian life, and COVID hasn't helped. In mid-2020, Colombia's urban unemployment rate surged to 15.4 percent. It's difficult for anyone to find a job, but for former guerillas, it's particularly challenging. Colombian citizens often still regard them with suspicion, and many have been out of the workforce for decades.

“It's hard,” says Hugo Ramirez, who joined FARC in 2001 at the age of 17. “There is an abysmal amount of absolute poverty, and we still witness children dying of starvation.”

But where so many saw a problem, Jaime Gongora, a wildlife geneticist at the University of Sydney, saw an opportunity. Colombia is the second most biodiverse nation on the planet; rainforests play an integral part in this, with more than 56,000 species that call it home. But, until recently, researchers haven't been able to study it in person due to FARC's occupation. Teeming with rare specimens, from the pink river dolphin to the critically endangered Magdalena River turtle, alongside countless undiscovered plants, the Colombian

1. *Socratea exorrhiza*, or the walking palm, is native to tropical rainforests in Central and South America. 2. Former combatants learn how to use camera traps. 3. The brown spider monkey is one of the world's rarest primates. 4. Wildlife geneticist Jaime Gongora shows off an armadillo found during a biodiversity survey. 5. The charapa, also known as the South American river turtle, is at risk of extinction from excessive hunting.

PHOTOS 1, 2, 4, 5: JAIME GONGORA; PHOTO 3: WILFREDO RODRIGUEZ/WIKIMEDIA COMMONS

rainforest is a naturalist's dream. Who better to explore that terrain than the people who had once lived there?

So, in 2017, Gongora created Peace With Nature, a series of workshops in the Guaviare region of Colombia to train past combatants in conservation science. The hope is that they'll later apply those skills to ecotourism initiatives, like creating new nature trails, and become citizen scientists themselves. The workshops are led by a multidisciplinary team of teachers, including conservationists and biologists. These experts have guided over 100 former soldiers through brainstorming sessions on combining their lived knowledge of the jungle with the rigors of the scientific method. They learn how to take plant samples, how to handle binoculars and the best techniques for observing wildlife. For the participants, the program aims to provide both a new purpose and a promising path forward. "The idea was to empower these combatants with knowledge [of] biodiversity," explains Gongora. "This [work] could be incorporated into activities that will allow them to incorporate into society."

Today, he returns to Colombia between three and four times a year to hold these sessions, which each last about a week. The homecomings are a joy for Gongora, who grew up in the Colombian countryside. He speaks of a youth spent playing in nature, creating makeshift huts with friends and observing the jungle's magnificent wildlife. Gongora carried that passion for wildlife into adulthood; in 1999, he left Colombia to pursue a doctorate in animal genetics in Australia. However, the war continuously loomed in the background of his childhood — a conflict with a complex history spanning nearly 70 years before the peace accord.

A PROLONGED CONFLICT

FARC was founded in 1964, six years after Colombia's bloody civil war — known as *La Violencia* — came to a close. The conflict erupted in 1948, when Jorge Gaitán, a popular presidential candidate for the country's center-left Liberal party, was assassinated. His death ignited riots and, eventually, a decade

PARTICIPANTS LEARN HOW TO TAKE PLANT SAMPLES AND HANDLE BINOCULARS AND THE BEST TECHNIQUES FOR OBSERVING WILDLIFE.

of armed conflict between the Liberals and the country's Conservative party. After 10 years and 200,000 deaths, the two parties agreed to the establishment of a bipartisan political system, known as the National Front, in 1957. Though it put an end to *La Violencia*, the system was overwhelmingly bipartisan and excluded participation by political leaders identified as heads of guerrilla groups.

One such group was the Colombian Communist Party, or *Partido Comunista Colombiano* (PCC). Communists first became active in Colombia after World War I, a reaction against the enormous wealth disparities between the working classes

1. The brown jacamar perches on exposed branches to catch its prey. 2. The blooms of the *Dracula simia*, or the monkey orchid, look uncannily like a monkey's face. 3. Former guerrillas use binoculars to spot birds in the Colombian jungle. 4. Owl butterflies are known for their huge eyespots, which resemble an owl's eyes. 5. Male rhinoceros beetles use their hornlike projections to drive rival males away during mating rituals.

and large landowners. Many of these individuals established communes throughout rural Colombia that the government initially ignored. The guerrillas called for land reform and better conditions for peasants, and vowed to defend the defenseless against the government's intrusions. But in 1964, the Colombian military began invading and destroying the communes. Members were forced to flee into the jungles, eventually regrouping to form FARC.

In the decades that followed, FARC's numbers grew and shrank before settling at 15,000 members at the dawn of the 21st century. It was during this period that Ramirez, a current participant in Gongora's program, joined FARC. At the time, FARC was an extremely powerful organization. The group's members were still fighting for communist causes, but the organization was also heavily involved in drug-trafficking, illegal gold-mining, kidnapping and extortion. The guerilla fighters caught the attention of other countries whose political and financial interests the group threatened, including the U.S. Between 2000 and 2015, the U.S. provided 10 billion dollars in military aid to help the Colombian government fight the drug-trafficking and terrorism that were FARC's cash cow.

Ramirez's description of his time living with the guerillas is two-pronged: a time of learning in the splendor of the Colombian rainforest, but also a period of profound loss and trauma. Living under the constant threat of enemy fire takes its toll, no matter the beauty of one's surroundings. Ramirez says he watched friends die in horrific ways, torn apart by aviation bombs or shot out of trees by the Colombian army. He was also taught to kill — an aspect of his time in FARC that he speaks about only in vague, simple terms.

Still, Ramirez insists that bloodshed composed only a small fraction of his life in FARC. When not patrolling, he and his comrades would study the works of communist scholars and learn new skills like medicine and cartography. In rare, non-regimented moments, they'd enjoy one another's company.

Above all, Ramirez remembers the moments that he shared with local people, including Indigenous communities. Because his regiment remained constantly on the move to avoid government surveillance, he often encountered neglected pockets of the Colombian diaspora. Ramirez says the guerillas would share sustainable ways of living with the locals, such as teaching them medicinal practices, as well as how to live in an ecologically responsible manner. Many of these practices were taught to the former FARC members by the Indigenous communities they encountered, who have a long history of protecting biodiversity and countering deforestation through traditional, sustainable farming practices. "The true goal of FARC was to make a positive social change," adds Ramirez.



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PHOTO 1: CESAR AFREDDO. PHOTO 2: ALEXANDRE LAPRISE/SHUTTERSTOCK. PHOTOS 3-5: JAIMÉ GONGORA



SOLDIERS TO SCIENTISTS

When the fighting finally ceased, Gongora, the wildlife geneticist at the University of Sydney, was halfway across the world in Australia. But shortly after the signing of the peace accord, Federica Di Palma, an evolutionary genomicist at the University of East Anglia and director of GROW Colombia, invited him to partner in the program, funded by the U.K. government, alongside various Colombian research, academic and government institutions. The initiative fosters bioscience and biodiversity in Colombia, while a sister organization, ECOMUN, promotes ecotourism. One of GROW Colombia's main goals is establishing a "bioeconomy" for citizens by creating new businesses involved in monitoring and conserving local flora and fauna.

Gongora agreed, but identified a missing element: the former FARC members. The Colombian government's reincorporation initiative found that around 40 percent of the former guerillas had previous experience in environmental conservation. Gongora believed that this population could be vital to creating a bioeconomy in Colombia. As a naturalist, he'd long yearned to study the jungles of his home country. Now, there was a veritable army of people ready to help.

Peace With Nature gives participants a crash course in an array of conservation practices. They learn direct observation techniques, how to conduct indirect surveys and track animals using footprints and feces, as well as ways to collect specimens in a non-invasive manner. They're also taught how to set up and use tracking cameras and can access taxonomic identification resources. Many are particularly interested in learning how to make inventories of plants and animals, says Gongora.

By learning these skills, the former combatants can aid researchers in their canvassing efforts while brainstorming their own ecotourism initiatives. In one session, the participants speculated about how much an avid birdwatcher might pay to spot one of the Colombian rainforest's countless rare species. In another, they identified areas where new nature trails, on which they could serve as specialized guides, might be created.

And after decades living in the jungle, former FARC members can share their own knowledge, like how to easily identify medicinal plants. Take the yoco, for instance, a tropical vine whose sap can be used against fever, nausea and vomiting. Former FARC members also inform researchers on the behavior of rarely observed wildlife. "Some of them also learned animal tracking from Indigenous communities," says Gongora, explaining how several participants taught him how to observe animals undetected.

Building on this already extensive knowledge of the jungle, Gongora immerses his students in the intricate science of biodiversity: They learn technical terms and scientific names

for the different species they came to know in the wild, while unraveling the subtle, natural connections integral to keeping ecosystems alive. In other words, the former guerillas are given the tools to study and analyze, scientifically, what they simply observed during the years they spent in the Amazon. "I have learned to have a deeper understanding," says Ramirez, "to value and love [the jungle] more."

SAVING THE FOREST

With that love, however, comes fear — specifically, of losing the rainforest they once knew intimately. When FARC occupied the Colombian Amazon, those areas were still protected from unsustainable farming practices and recent development initiatives like oil drilling and palm oil plantations. "We maintained the ecosystem with the mentality that the jungle was our house, our protector," says Ramirez. If their company had to fell a tree, they planted 10 more. Beyond that, he says, they responsibly eradicated all waste, and the bush they camped in was tamed with machetes as non-invasively as possible.

Today, just four years after the peace treaty, the once-occupied areas of the jungle have already seen significant deforestation. FARC's speedy exit from the area has left a lawless vacuum in its wake, which the Colombian government has done little to fill. Loggers cut down trees en masse, while other areas are razed to make room for unsustainable cattle ranching. Meanwhile, illegal gold miners ravage once-pristine habitats. In 2017, deforestation in Colombia rose 65 percent compared to the previous year; by 2018, nearly 500,000 acres of jungle had disappeared. Previously lush hubs of biodiversity now resemble ashen planes littered with the skeletal white remains of ancient trees. Ramirez aptly calls these areas *tumbas*, or graves.

But Gongora hopes that Peace With Nature's efforts will help safeguard the rapidly dwindling Colombian rainforest. For example, participants can present their ecotourism ideas to major Colombian research institutions and agencies. At these forums, the program's members apply for project funding, potentially providing them with a new livelihood — and pathway to reintegrate into society — while identifying which areas of the increasingly threatened jungle to protect.

In the long term, Gongora aims to expand his program beyond helping former FARC soldiers get back on their feet. He hopes participants will also share the techniques they've learned with local communities so that, together, they can work to protect the at-risk areas they call home — and extend the efforts of Indigenous groups already fighting to preserve the Colombian Amazon. "They can use these techniques and collaborate with local and national institutions in Colombia to protect biodiversity," says Gongora.

Participants in Gongora's program will hopefully go on to become part of the Amazon's army of citizen scientists, spreading interest in conservation efforts throughout Colombia and to visitors through their ecotourism initiatives. For Ramirez, the only way to save the rainforest is to inspire the same deep love he feels for it in others. "We need to instill it in people from childhood," he says. "That care [and] love that one should have towards biodiversity." ■

Addison Nugent is a freelance writer based in Paris.

PHOTOS 1, 2, 4, 5: JAIME GONGORA. PHOTO 3: CESAR ARREDONDO

1. Known as *pusui*, this plant is sometimes used to make fences and animal shelters. **2.** A member of the Colombian police accompanies one of the group's fieldwork activities. **3.** The Amazonian umbrellabird, named for its umbrella-shaped crest, can be found foraging in the rainforest canopy. **4.** Gongora and collaborator Jaime Erazo scan their surroundings at a lake near the Guaviare River. **5.** There are more than 60 species of cicada in the Colombian rainforest.