

hey call it Sapot – a manmade spider web of industrial cable wire and organic rope, measuring 20ft wide, that's able to withstand the weight of 15 adults. It has become the Masungi Georeserve's chief attraction, a sight that is quickly captured and uploaded on the social media feed of almost every visitor to the park as they pose gingerly atop the structure, trying their best not to look down at the jagged rock formations that lie directly below.

Masungi Georeserve is situated just an hour and a half drive's away from Metro Manila, in the quieter parts of Baras, Rizal – a place that remains largely undisturbed by urban development and the busy lives of city dwellers. In its current iteration, Masungi is one of the country's premier nature parks, its 10km-long adventure trail filled with well-designed rope structures – like Sapot – and hiking pathways that take you on an amble though the area's unique rock formations, vast caves and lush forests.

Like many thrill-seekers who make their way to Masungi, I've come here to

experience my next great adventure. But as I cautiously take my initial steps toward the center of Sapot – feeling like human-sized prey – I feel my old fear of heights slowly resurfacing. But this is not an activity for the weak-spirited, so I keep my eyes up, force myself not to think about the prospect of a perilous fall and soldier on.

A few meters from the spider web, other trekkers are traversing a giant hammock – known as *Duyan* – hanging hundreds of meters above the ground. Like Sapot, it overlooks the Sierra Madre mountains – one of the Philippines' longest ranges – and one of Luzon's last remaining forests. For those who can pluck up the courage to come, the views at Masungi – easily captured on camera – are truly a sight to behold.

But it wasn't always like this. In the 1990s, this 1,500ha forest was inundated with illegal loggers, many of whom came for the valuable hardwood that's indigenous to this region. The area's plethora of rare exposed karst limestone formations – one of the more valuable minerals that's easily

developed for a variety of industrial uses – also made it vulnerable to quarrying. Both activities also had a detrimental impact on the environment's rich biodiversity.

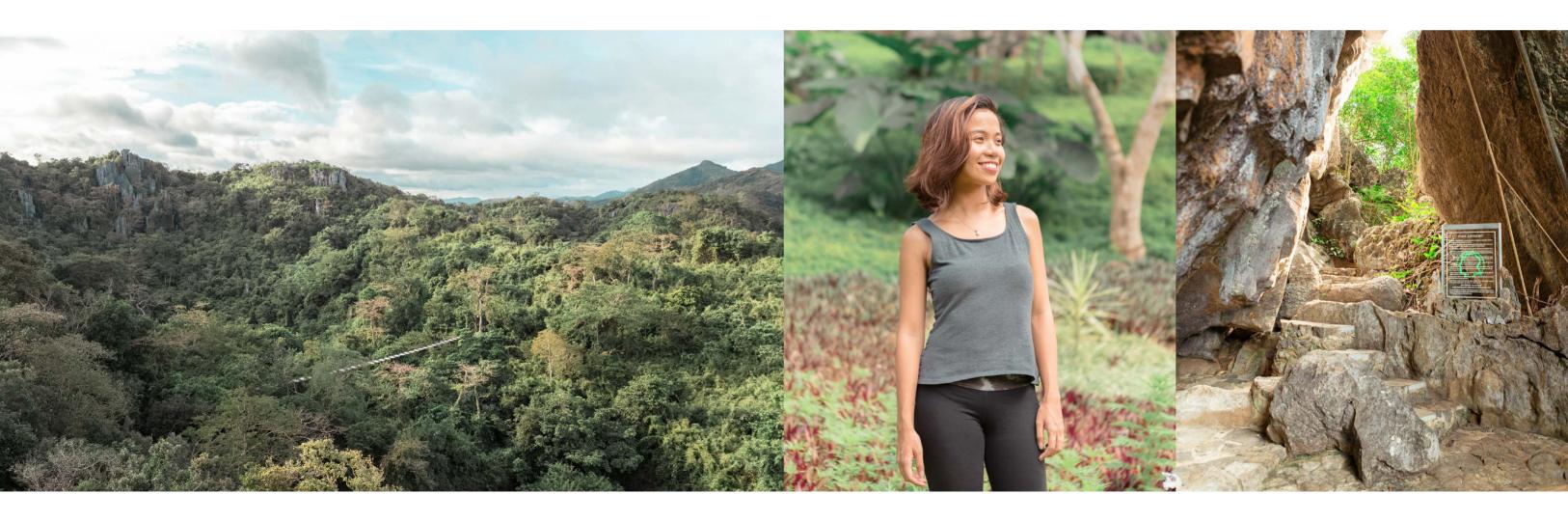
It was only 15 years ago that a privately funded organization, spearheaded by Blue Star Construction & Development Corporation, took it upon themselves not only to care for the area, but to actively fight for its conservation. They stressed the geological value of the land and wielded its potential as a prime destination for geotourism – tourism that sustains or enhances the geographical character of a place – as a weapon against those who abused it for industrial and economic gain.

In 2015, after more than a decade of rehabilitation efforts, Masungi finally opened to the public. By bringing people in and allowing them to experience a small slice of the forest for themselves, the team behind Masungi hopes to sustain and inspire conservation efforts for the rest of the area. And while illegal logging and quarrying still occur from time to time – albeit less

frequently than in the '90s - they're hoping that more people will flock to Masungi to actively participate in geotourism, a concept that's gaining greater popularity as the impetus to preserve and protect the environment becomes more and more urgent with each passing day.

Ann Dumaliang, the project officer of Masungi who has been overseeing the site for years, is quick to stress the differences between geotourism and ecotourism. "Ecotourism in the Philippines has come to mean spending time or having an adventure in nature, even if it's not necessarily sustainable," she says. "Geotourism focuses on the geological features of the land, which can be of aesthetic, educational or scientific importance. It places a huge significance on a place's integrity, and you're only supposed to create manmade enhancements that support the character of the place. A geosite should be of high value and low impact, both in terms of how the site is administered by management and how it's enjoyed by visitors."

THIS SPREAD
A view of Masungi
Georeserve from above;
Ann Dumaliang, the
project officer who
oversees Masungi
Georeserve; part of the
arduous trail that visitors
come to conquer



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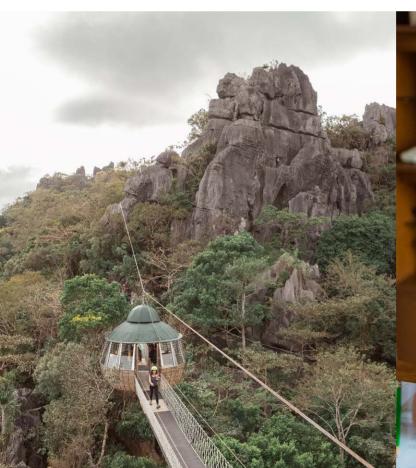
Now, on top of their daily sweep of the area for illegal loggers or trespassers, Ann and her team have also employed and empowered a crew of park rangers - locals from the nearby communities of Pinugay, Cuyambay and Tandang Kutyo - who expertly guide visitors along the trail. Protecting the karst limestone rock formations - the most valuable geological features in Masungi - is also a high priority. "The limestone exposure is possibly the only remaining large exposure of rock from the Paleocene age in the Philippines," says Rolando Peña, a geologist who has been working closely with Ann on research.

In South-East Asia, karsts cover an area of about 400,000sqkm, stretching over a range of geological ages. Studies by the National Research Council of the Philippines show that only about 10% of the country's terrain is made up of karst landscapes seen most prominently in tourist attractions such as Puerto Princesa's Subterranean River, El Nido and the Calbiga Cave in Samar. Masungi Georeserve is currently the most accessible place in the country for geologists to study karst formations that first appeared between the Paleocene and

Cretaceous periods, making the Georeserve a place of particular scientific importance.

Despite the area's inherent significance and natural beauty, geological value is a complex message to communicate. While many private protected areas in other countries are afforded some level of legal protection via existing organizations - for example, the Nature Conservancy of Canada and the Costa Rican Network of Private Nature Reserves - this sort of legislature remains unexplored in the Philippines. Hence, independent conservation efforts in areas of environmental significance, like Masungi, are afforded little legal recourse by the government. There are currently no laws in place that offer protection for karst forests, or for geotourism parks that are privately operated.

Eventually, Ann hopes that Masungi will gain membership into the Global Geoparks Network - a designation granted by UNESCO that's an honor equivalent to a World Heritage Site. Attaining Geoparks status often takes years and years of tireless research and on-the-ground work to achieve, and there are currently none in the Philippines. But by identifying more







THIS PAGE

A section of the

trail at Masungi

Peña, a geologist

Georeserve and its

surrounding areas

who carries out research at Masungi

Georeserve; Rolando



"Geotourism places a huge significance on a place's integrity, and you're only supposed to create manmade enhancements that support the natural character of the area"

geological formations worth protecting, doing the nitty-gritty research work, monitoring the area for trespassers and illegal logging activity, and promoting the karst forests, Ann and her team are determined to get there.

Meanwhile, while the defenders of this land are quietly working on the ground, Masungi continues to create a buzz among visitors, adrenaline junkies and thrillseekers. And what an adventure it provides. Barely a quarter of the way through the trek, I've already found myself climbing up tall cargo nets and weaving in and out of daunting rock formations, ducking my head at different points to avoid grazing up against the low-hanging caves - not to mention coming face-to-face with Sapot.

As I take a break to catch my breath, Ann - who's already made it to the center of the giant spider web - sits cross-legged from me, gazing in the direction opposite the trail. On her face is an expression of utter calm and serenity - a look that tells me this is her happy place. "When you are up here, you see everything. You see the view all the way to Metro Manila," she says while gesturing toward the perfect panorama overlooking Laguna de Bay, lit by the magic of golden hour. "Over the years, you see it coming close - you literally see the

### FLORA

### AND FAUNA

The rich biodiversity of Masungi includes some exciting species, including these two rare varieties



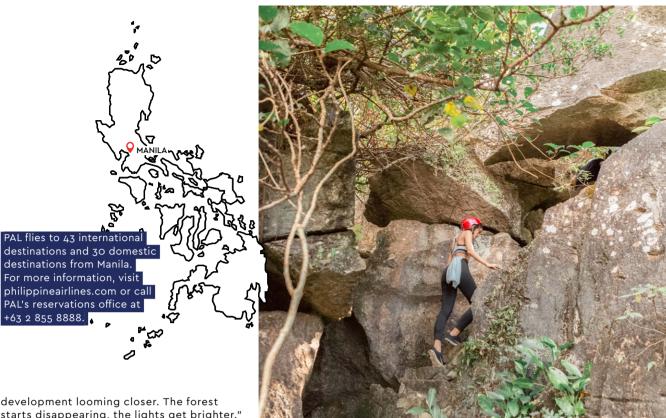
## The jade vine (Strongylodon macrobotrys)

flourish in tropical weather, this unique plant - which is endemic to Philippine forests and can grow up to 18m in length - can only be found in a few places. The flower takes its name from its green blossoms but at Masungi, due to the limestone in its surrounding habitat, it turns purple. It only blooms in the month of February, so plan your visit accordingly.



#### Titan Arum (Amorphophallus titanum)

The Titan Arum is ordinarily a giant of a flowering plant, but the kind seen at Masungi is of the pygmy variety, growing to in height. It's also known as the corpse flower - due to its odd smell that's been likened to the stench of a rotting animal - and was previously said to be endemic to the limestone hills of West Sumatra.



development looming closer. The forest starts disappearing, the lights get brighter."

Despite the myriad challenges they face, Ann and her crew are committed to being full-time defenders of Masungi and finding ways to secure legal protection to ensure its current and future existence. "If it's not protected, and people don't know about it, it's going to be so difficult for us," Ann says with a tinge of frustration. "In a way, we're trapped, and we're just trying to figure out the best way to protect this place."

After a while, she rises resolutely from her position on Sapot, as though immune to the adrenaline-inducing sights ahead. For Ann, this is not just another adventure: this is a mission. We leave the spider web, and set out for the long walk ahead.

"Over the years, you see the development looming closer. The forest starts disappearing, the lights get brighter"

# ASIAN **GEOPARKS**

While there are currently no **UNESCO-designated** Geoparks in the Philippines, here are some in neighboring countries that are worth the trip



### O Vietnam

Dong Van Karst Plateau

This karst plateau in the Ha Giang province is made up of over 80% limestone and contains fossils from species that are up to 600 million years old. This highland area was the second reserve named as a Geopark in South-East Asia, and



### O Indonesia

Batur Caldera

Batur features the country's most beautiful caldera - roughly 7.5km in diameter – and rich biodiversity, including monkeys that live at the crater's edge. You'll also find the Kintamani dog, called Gemborong, which has a face like a wolf but a body



### O China

Stone Forest

Found in Yunnan Province, this karst Geopark contains beautiful rocky landscapes formed in the late Paleozoic era. It gets its name from a giant stone pillar cluster that resembles the trees of a forest. The first layers of rock here are estimated to have been formed 250 million years ago.