



THE BUTTERFLY EFFECT

When **Robin Greaves** retired from his pilot career, he began raising butterflies. The breathtaking creatures then helped him restore the Belizean rainforest.

Words and Photos by
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A gorgeous blue butterfly lands on my arm, leisurely flapping its wings. I freeze in my step to avoid scaring it away, just as another one flutters right next to it. A third creature, coloured in dramatic red and black, alights on my other arm — all in the span of a couple of minutes. I hold my breath, savouring this once-in-a-lifetime moment.

I'm standing in the middle of the Green Hills Butterfly Ranch in Belize, which grows over 30 species of butterflies, the numbers of which have declined in abundance because of habitat destruction or the use of agricultural pesticides. The ranch is the brainchild of Robin Greaves, a former commercial pilot who was once chief pilot for the United Nations.

Growing up in England, Greaves loved butterflies. "I studied butterflies as a child, and I had a hobby collecting them," he says. As his work took him around the globe, he also engaged in various conservation efforts, protecting nature and wildlife



from poachers. Along the way, he realised that butterfly numbers were dwindling. He also realised that the world's forests were being cut at an alarming rate — a huge blow to the planet's ecology and biodiversity. So, he spent several years in Eritrea and Ethiopia, developing ways to restore forests in areas that had become deserts, and when he retired — in Houston, Texas, where he had a family — he sought to continue doing something meaningful for the planet — a goal that started with buying a piece of rainforest in Central America that he could preserve.

One ad for land caught his attention. The Belizean property listed had about 20 hectares of forest, which was advertised as a butterfly farm — a perfect combo for Greaves. After he purchased the land in 2018, he discovered that butterflies could also make good business — and not just as a local tourist attraction.

Butterfly exhibits are immensely popular globally, so museums, zoos and conservatories are often looking to buy butterfly pupae — the cocoons the creatures emerge from. Butterflies are much easier and cheaper to keep than most animals, and they are very happy in a small space with enough nectar, so unlike lions or polar bears, they aren't harmed when in exhibitions, explains Greaves. "I realised that there was potentially a big market for selling butterflies and their pupae."

In mathematics's chaos theory, there's a term called "the butterfly effect" which, in a simplified way, can be described as this: a small tweak in a state of a system (such as a flap of a butterfly wing) can result in a bigger change later. Greaves was about to witness it in real life — he just didn't know it yet.

Over the next few years, he expanded the operations, buying 40 more hectares and hiring several employees, which brought jobs to the community. Still, there was no immediate tornado from those initial wing flaps. Rearing butterflies takes time, effort and finesse. At the ranch, once butterflies lay eggs, the staff collects and transfers them to a safe place. After the larvae, more commonly known as caterpillars, hatch, they eat continuously, so the staff



from top left: when caterpillars are fully grown, they stop eating and become a pupae, from which butterflies emerge; Green Hills Butterfly Ranch grows over 30 different species of butterfly; butterflies feed on bananas and other fruit before laying eggs.

supplies them with the plants they like to feed on — and that’s a feat in and of itself.

“They’re all indigenous plants that are part of the forest’s ecosystem, but if we harvest these particular plants continuously, we’d very soon deplete the available supplies,” says Greaves. “We can’t rely on harvesting alone; we have to produce it.”

So, the ranch workers also grow the food for the larvae. “We farm and irrigate the plants,” says Greaves, “and we’ve increased the crop production dramatically to provide the food for the caterpillars.”

Once the caterpillars form cocoons, they are ready for their long-distance travel. “We export about 2,000 a week,” says Greaves.



Photo by Green Hills Butterfly Ranch

“Half of them go to the United States, half of them to Europe.”

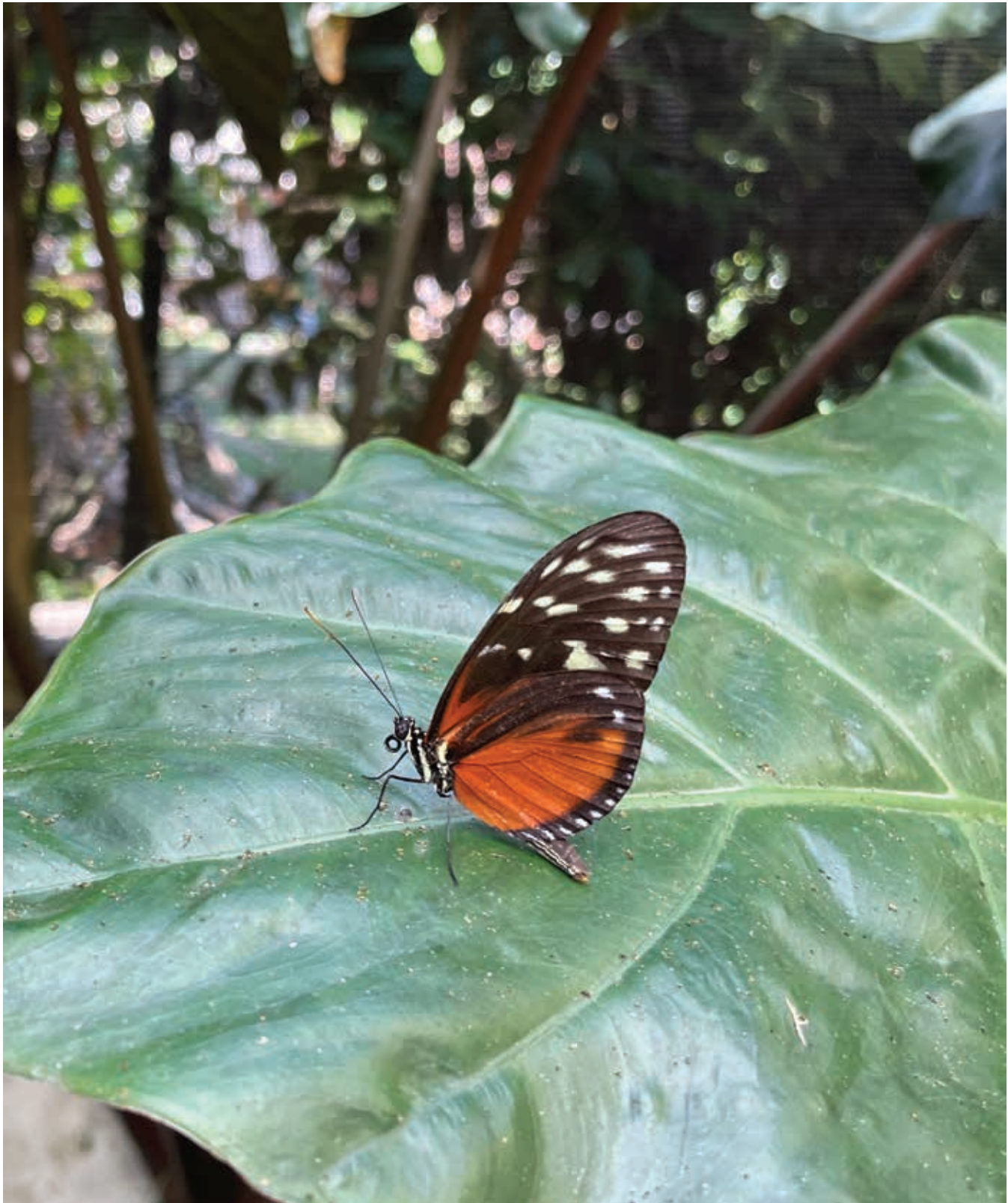
Eventually, the butterfly proceeds allowed Greaves to purchase and preserve even more rainforest habitat. With help from staff, he also umped conservation efforts, discouraging wildlife hunting and poaching, which quickly bore fruit. “We noticed the numbers of wild animals have increased dramatically on our property,” he says, noting regular sightings of the five famous Belizean wildcats — ocelot, margay, jaguarundi, puma and jaguar.

Over time, he expanded his work into education. The ranch opened its doors to school tours at no charge — and became very popular. “We educate the children about biodiversity because it’s not something they commonly learn in school,” says Greaves. “We try to fill in these gaps. We tell them about the value of the forest and the value of the flora and fauna.”

Last year, about 15,000 students came to admire the butterflies at Green Hills and learn about biodiversity, making the ranch a number one thing to do on TripAdvisor.

Today, Greaves, who splits his time between Houston and the Belizean jungle, is working on his next project named Jaguar Habitat, a nonprofit organisation that aims to restore the land destroyed by logging or mining so that big cats can roam it again.

“We’re working on methods of rehabilitating and rejuvenating the land and turning it back into a natural habitat,” Greaves says. He has essentially achieved the butterfly effect with his favourite creatures — and it only keeps growing. greenhillsbelize.com



from top left: Robin Greaves loved butterflies as a child. He found his true calling in his retirement; proceeds from butterfly shows allowed Greaves to purchase and preserve more of the rainforest; butterflies are happy in a small space with plenty of nectar, so they aren't harmed by the exhibits.