Saving Nature

A Decade of Progress 2015 to 2025

A mule waits to carry seedlings to be planted in the Macanas Valley, Colombia, watched by a statue of St. Francis.

Saving Nature — a decade of progress.

Mission and approach

Saving Nature's mission is to slow or prevent the loss of biodiversity. Our approach has a unique niche, and it has three essential features.

First, it uses the science developed by Professor Stuart Pimm, his colleagues, and students to answer, in detail, *where* one should act. That work provides the most detailed maps available of where threatened species occur, and so where our priorities should be.

Second, that team uses another body of science they have developed to answer exactly *how* to act to slow biodiversity loss. The habitats that remain in priority areas are often in small fragments. The science shows that species losses will be high in fragmented landscapes. Restoring habitat connections between them will slow or stop those losses. Such actions are the most cost-effective conservation actions.

It is for the science of quantifying the loss of biodiversity and developing tools to prevent it that the Royal Netherlands Academy of Arts and Sciences awarded Professor Pimm its Environmental Sciences Prize in 2006. Three other major international awards have followed: the Tyler Prize (2010), the Cosmos Prize (2019), and the MDPI Sustainability Prize (2025). They recognise the work implementing this science through Saving Nature and Pimm's seminal contributions as a founder of the field of conservation science.

Third, decades of practical experience in stopping the loss of biodiversity demand local action as the essential strategy. Saving Nature's approach is to empower local conservation groups to restore and protect nature. Saving Nature does not own land, nor does it employ local staff. We fund local communities to buy land, develop nurseries, and plant native trees.

Simply, Saving Nature gives top priority to projects that restore natural habitats, usually forests, to reconnect isolated forest remnants. This report presents those first. Second, we discuss efforts where Saving Nature acts to prevent habitat loss — and especially habitat fragmentation. Finally, we report projects where our experiences can help conservation groups that share our broad goals.

Key statistics:

Saving Nature has helped local conservation groups acquire more than 4,000 hectares of land, about half of which is forest. Of the remainder, the projects have planted about half in native trees and allowed the other half to regenerate naturally. Overall, Saving Nature has enabled three million trees to grow and, very approximately, is sequestering 20,000 tons of carbon dioxide from the atmosphere annually. We are now successful at selling carbon credits for forest restoration.

The "where"

The late Professors E.O. Wilson and Tom Lovejoy (both Science Board members) popularised the term "biodiversity." With them, Professor Peter Raven (Science Board member), Professor Pimm, and others quantified its loss and recognised that threatened species are concentrated in key areas. Our colleague, the late Professor Norman Myers, called these *biodiversity hotspots.* These

areas have exceptional numbers of species found only there, i.e., endemic to them, and, alas, very high levels of habitat loss.

Professor Myers would often ask: How can we go from a biodiversity hotspot that might cover a million square kilometres to a practical action, such as planting native trees in a cattle pasture to restore forests? The science behind Saving Nature provides that answer with state-of-the-art species mapping. Our current, third-generation maps now include the rapidly expanding body of citizen-science data, such as eBird and iNaturalist. (The latter's co-founder, Scott Loarie, did his Ph.D with Pimm).

The "how"

A second vital part of that research investigates how quickly species are lost from small habitat fragments. To the initial work done on oceanic islands with Professor Jared Diamond, Pimm added work with the late Tom Lovejoy in the Amazon, and Pimm's student, Tom Brooks, in Kenya. Small fragments lose more species and lose them more quickly than larger ones. More specifically, it suggested that a minimum area of 10,000 hectares (100 square kilometres, or roughly 40 square miles) would be needed to slow extinction rates. (See Brooks et al, Ferraz et al. in supplemental materials below.)

That's a benchmark for Saving Nature's actions. We work with local conservation groups to restore habitat connections to create large, viable forested areas.

The "who"

Of course, what we do is all about people. Conservation cannot work unless the community is committed to restoration.

Most often, it's the women in the local community who collect the seeds from local, native trees and germinate them — often with their children as helpers. In Colombia, they load the trays of seedlings onto mules — see the cover page. Their menfolk use augers to drill the holes into which the seedlings will grow. We are enormously proud of helping communities have a better future. And, increasingly, we help build better local capacity to understand and manage biodiversity.

Stills from a video at
www.savingingnature.com

Overview of projects

In the pages that follow, we present 11 corridor projects, as well as four projects to stem habitat loss and fragmentation, and lastly, two to facilitate like-minded organisations. The projects are all in tropical biodiversity hotspots — areas defined to have exceptional numbers of endemic species and high levels of habitat loss — with one exception. That exception is in the Appalachian mountains of the USA, an area increasingly recognised as a hotspot because of the number of its unique amphibian and fish species.

The corridor projects are in Brazil, Colombia, Ecuador, Indonesia (Sumatra), Panama, and Tanzania. In some cases, we are the principal and even the sole funder of corridor restorations. In others, we partner with other organisations. Very roughly, we want to fund the acquisition and restoration of degraded habitats to create corridors, while others prefer to buy intact forests. In practice, any given land deal is a mixture, so developing partnerships is essential. Importantly, in some cases, having helped local groups with their first corridor projects, they are now able to approach donors and foundations directly. We are just delighted when the projects in Brazil, Ecuador, Tanzania, and elsewhere now have the experience to do corridor restorations without us.

The four projects we have funded to prevent habitat loss and fragmentation have all been those where we can act quickly, usually to help partners buy land to prevent roads from cutting into the forests. These are second priorities for us and do not lead to long-term involvement, but we are nonetheless pleased with the results of our quick actions.

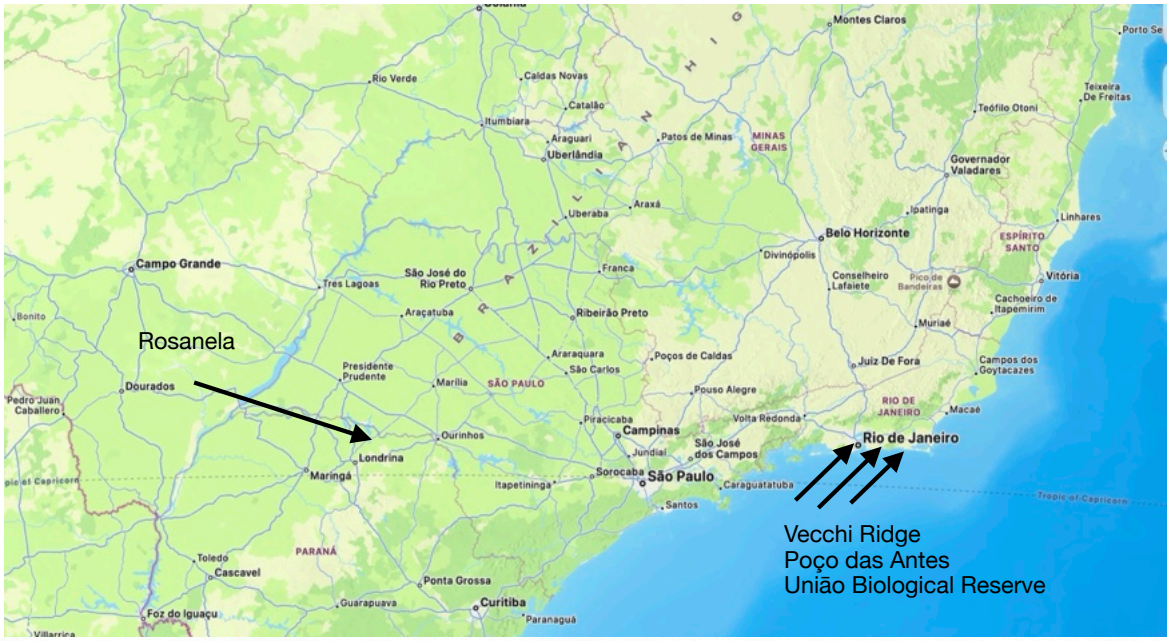
Finally, not all our projects are complete: we have commitments to several of them that will take us several years to complete. The details are at www.savingnature.com

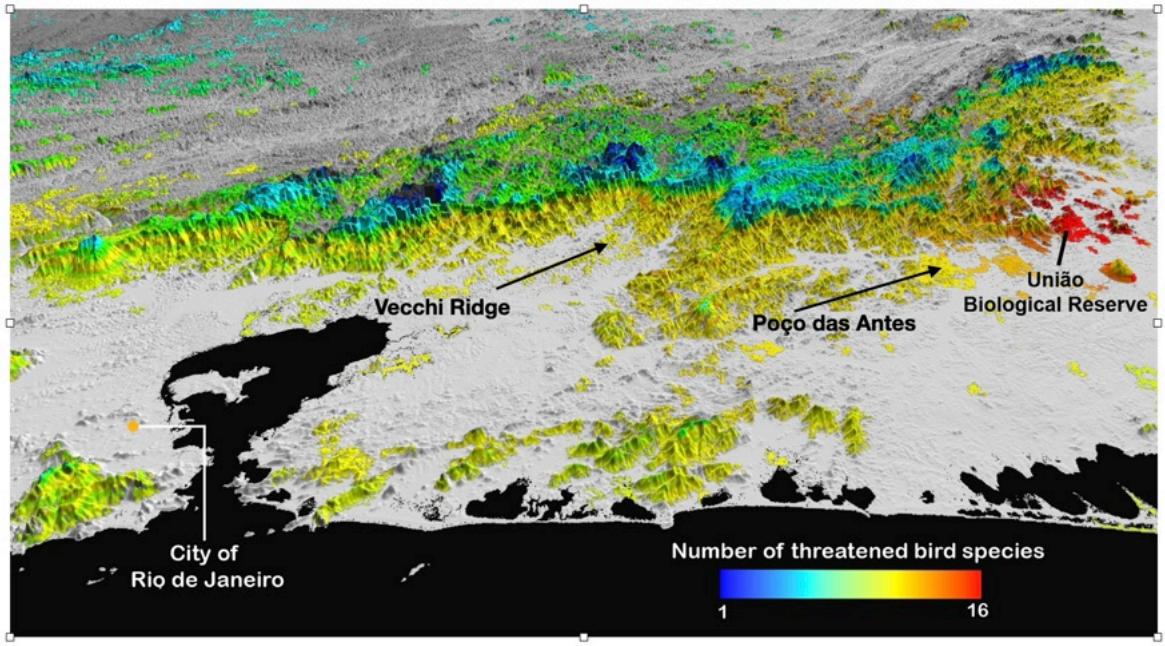
Details of the science behind Saving Nature are in the supplemental materials below.

Habitat Corridor Projects

The Atlantic Forests of Brazil.

The coastal forests of Brazil have exceptional biodiversity, but high levels of deforestation. We have supported three projects in Rio de Janeiro State and one in São Paulo State.

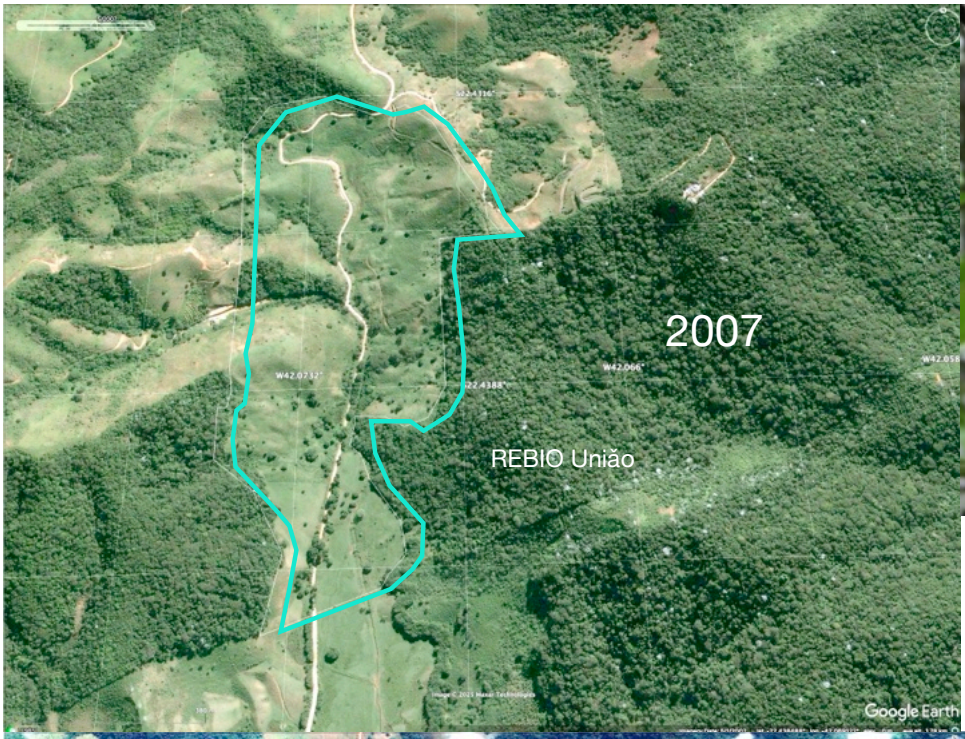




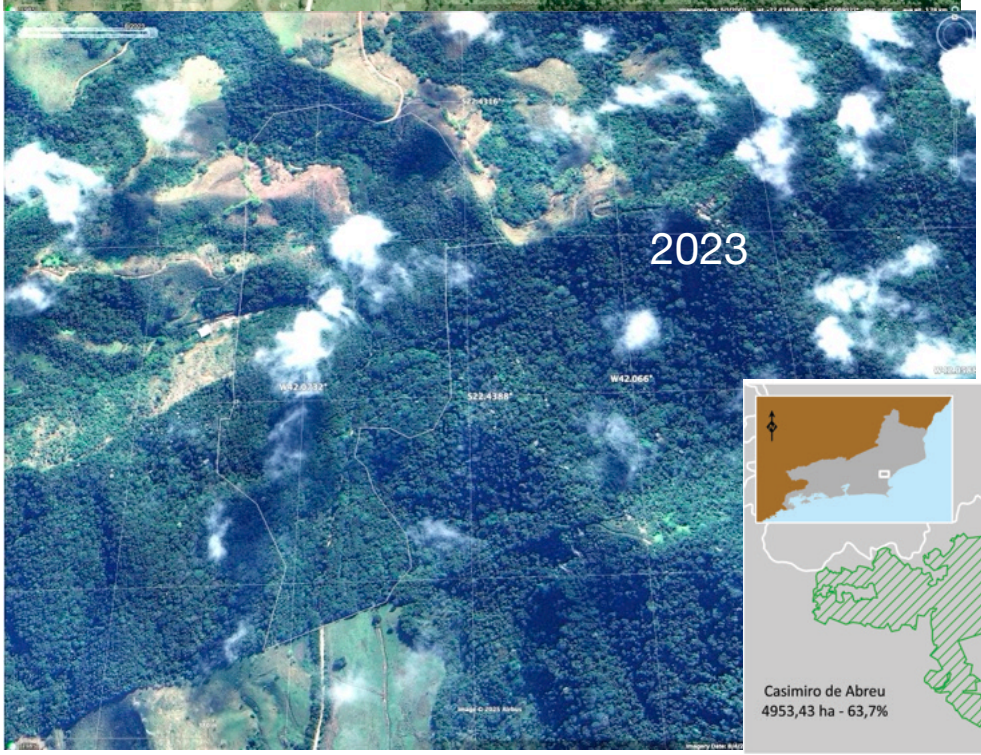
Top: Locations of four Saving Nature sites in southern Brazil: three in Rio de Janeiro State and one, Rosanella, in São Paulo State.

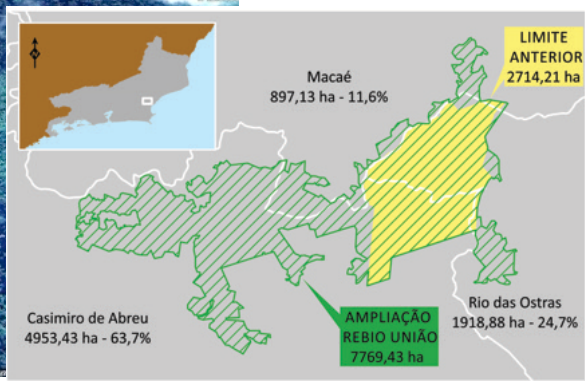
Bottom: Detailed locations of three Saving Nature sites in Rio de Janeiro State. The background is coloured only where there is remaining forest and the colours are draped over a 3D rendering of elevation. They indicate the number of threatened species of birds present, ranging from low (one species, dark blue) to high (sixteen species, red). From Pimm and Jenkins, *Scientific American* 2006.

1. ***Fazenda Dourada, Rio de Janeiro. Objective:*** to connect the forests of the União Biological Reserve (REBIO União) to the west to form a larger connected reserve. This project also connects the Reserve to higher elevation forests to which species are moving as the climate warms. A key species here is the golden lion tamarin — mico leão dorado — for which the efforts of our partner have brought its numbers to 4,800 from a low of 200 in the 1970s.



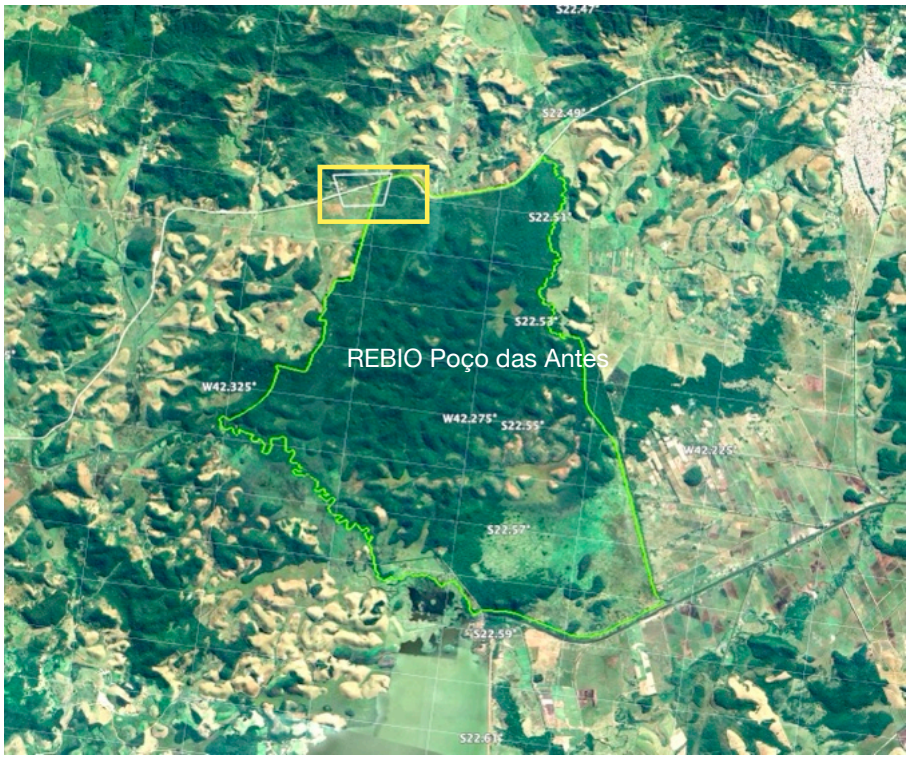
Outlined in turquoise and running north-south along a valley, the cattle pasture of Fazenda Dourada isolated Reserva Biológica (REBIO) União to its east from continuous forests to the west. Saving Nature funded Associacão Mico Leão Dourada to purchase this area, which they then transferred immediately to the Brazilian Park Service. The land was then reforested, allowing movements of golden lion tamarins and other species.





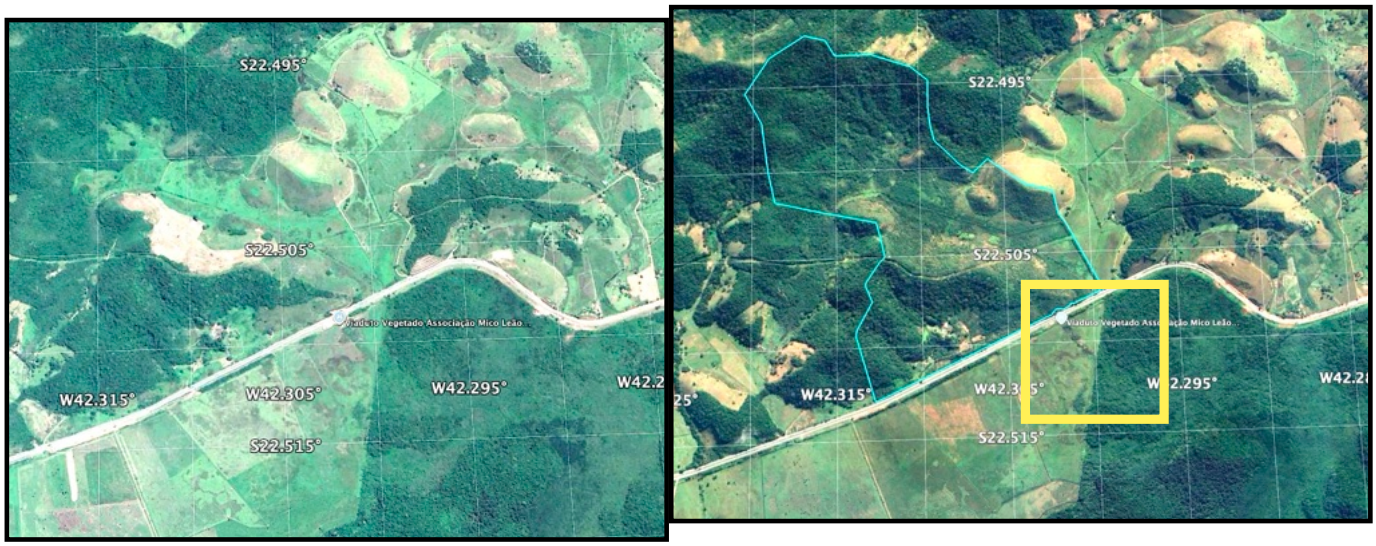
Inset: a schematic of the expansion of the protected area. Yellow: the original extent of REBIO União, 2714 hectares. Green shading: Adding both the Fazenda Dourado property and conservation easements to 4953 hectares to the west the Brazilian authorities created a much larger combined protected area of 7769 hectares.

2. Fazenda Igarapé,* Rio de Janeiro. *Objective: to connect another isolated REBIO, the Poço das Antes Reserve, to forests to the north and across a major highway, BR101.



Top: REBIO Poço das Antes lies to the south of a major road (BR101, which runs east to west across the top of this image.

To connect this reserve to forests to the north required creating a habitat corridor north of the road and a bridge across it, in the area shown by the yellow rectangle.



Outlined in turquoise: Saving Nature raised funds for the Associacão Mico Leão Dourada to purchase 200 hectares on the north side of the road. Most of that land needed to be reforested. The two detailed images show this corridor area before (2018) and after purchase and restoration (2024).

A substantial complication was the need for a habitat bridge across the road and a small habitat corridor south of the road to connect to the reserve.

The yellow square is shown in detail on the next page.

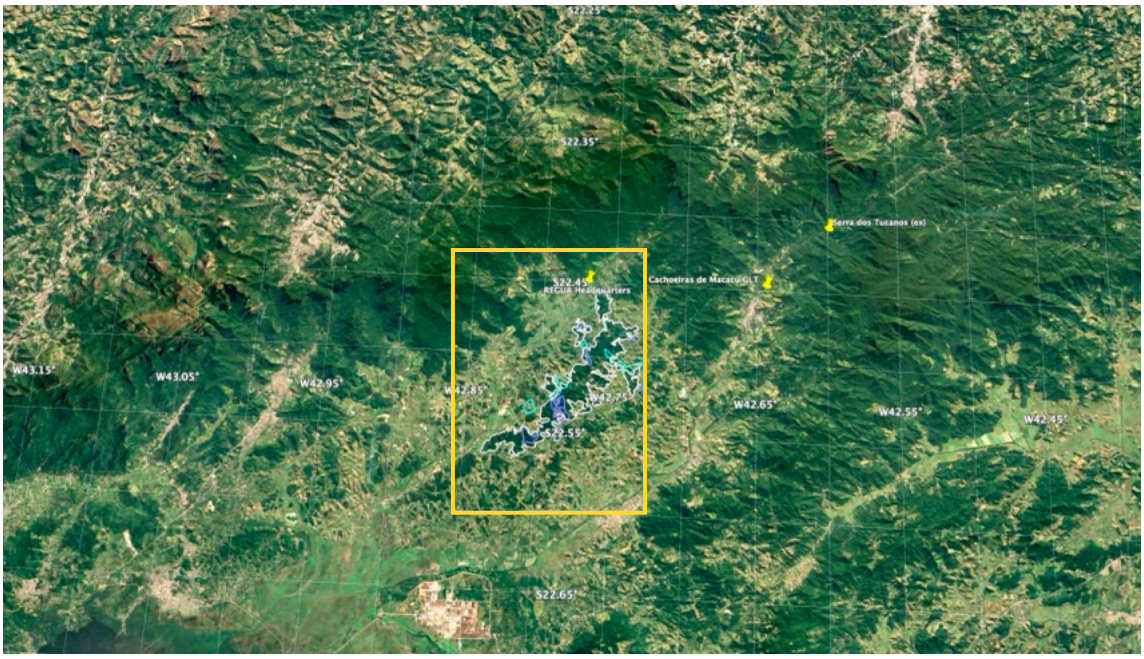
Saving Nature raised funds for the Associação Mico Leão Dourada to purchase 200 hectares on the north side of the road. Most of that land needed to be reforested. Our partners then persuaded the company contracted to widen the road to build a habitat bridge across it. It's the only one we're aware of in Brazil and likely one of the few in the tropics.

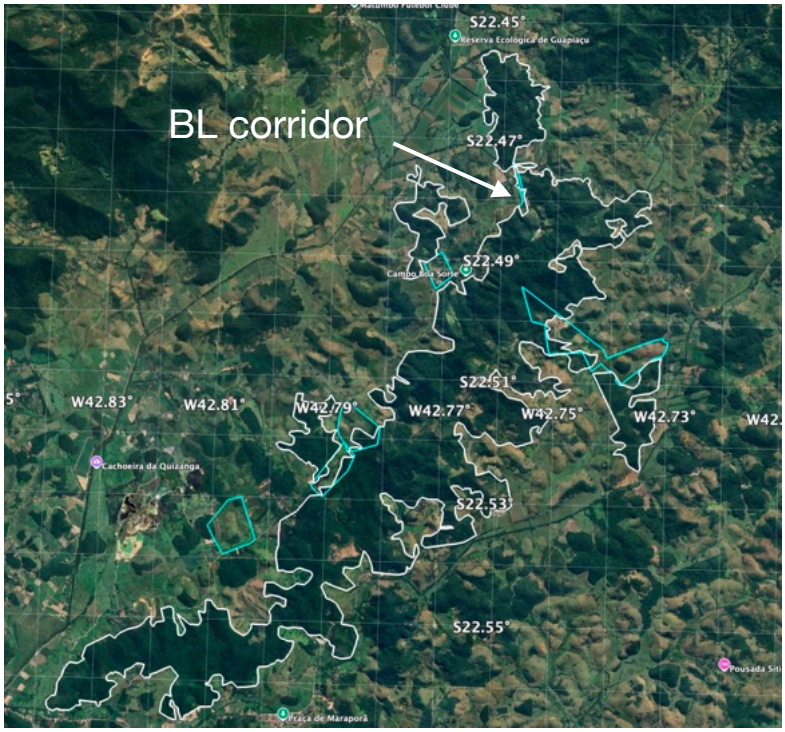
Top: Location of the habitat bridge across the road, the land Saving Nature funded (outlined in turquoise), a more recently acquired property (outlined in white), and the connection to Poço da Antas. Bottom: drone image of the habitat bridge a year after completion.

In addition to the purchase, an added benefit was to provide a building and facilities for the Associação, which had not had permanent space until then. This also allowed them to develop what is now a very popular visitor centre, where visitors can learn about the tamarins and see them on guided tours.

This project also required a habitat corridor to connect the bridge over the highway to the reserve to its southeast. This has only been partially successful, and efforts to buy land there are frustrated. Still, camera trapping shows that many species, including pumas, are using the habitat bridge.

3. Vecchi Ridge, Rio de Janeiro. Objective: to connect many isolated fragments of lowland forest into a continuous forest and then to larger forests to the north.





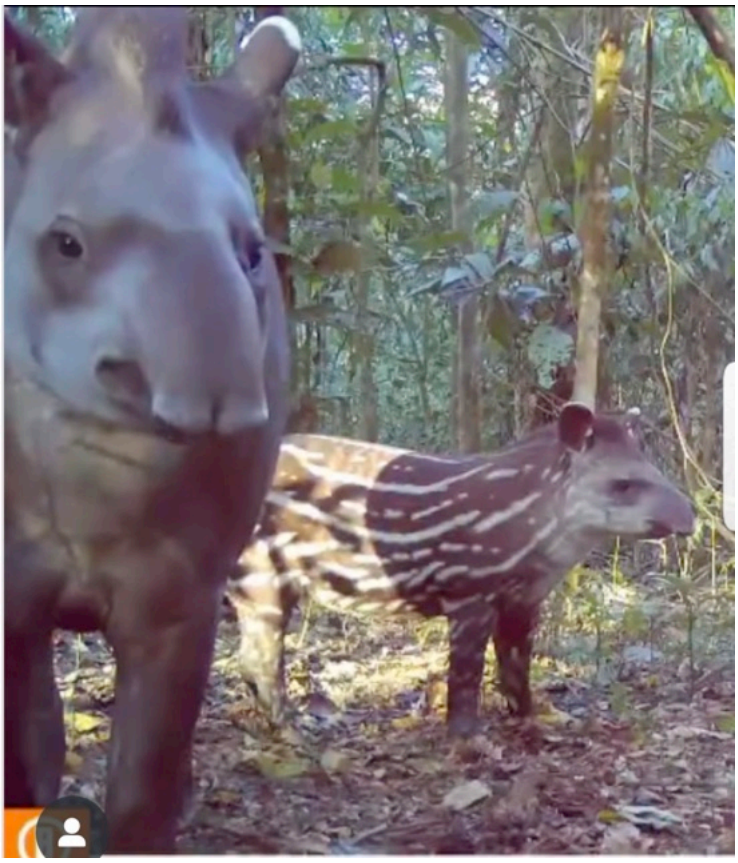
Top: Within the yellow box, the Vecchi Ridge runs northeast to southwest in a watershed with higher mountains to the west, north, and east.

Bottom: In detail: outlined in white, the ridge is roughly Japan-shaped "mainland" with continuous forest and a set of isolated outer "islands."

Turquoise: Saving Nature has helped our local partner buy six properties and replant them to connect outer "islands" to the "mainland."

An example of the restoration of one of these (BL) is detailed on the next page.

Brazilian law requires landowners to leave a percentage of their land as forest. Typically, the hilltops are spared, while the valleys are cleared. We have supported the Reserva Ecológica de Guapiaçu (REGUA) in buying up valleys, reforesting them, and connecting the landscape. We do so strategically to connect the outer "islands" to the "mainland" of the Japan-shaped main ridge. Saving Nature has succeeded in funding and reforesting six properties thus far and expects to continue this work. A top priority is to connect this set of fragments to more continuous forests in the north.



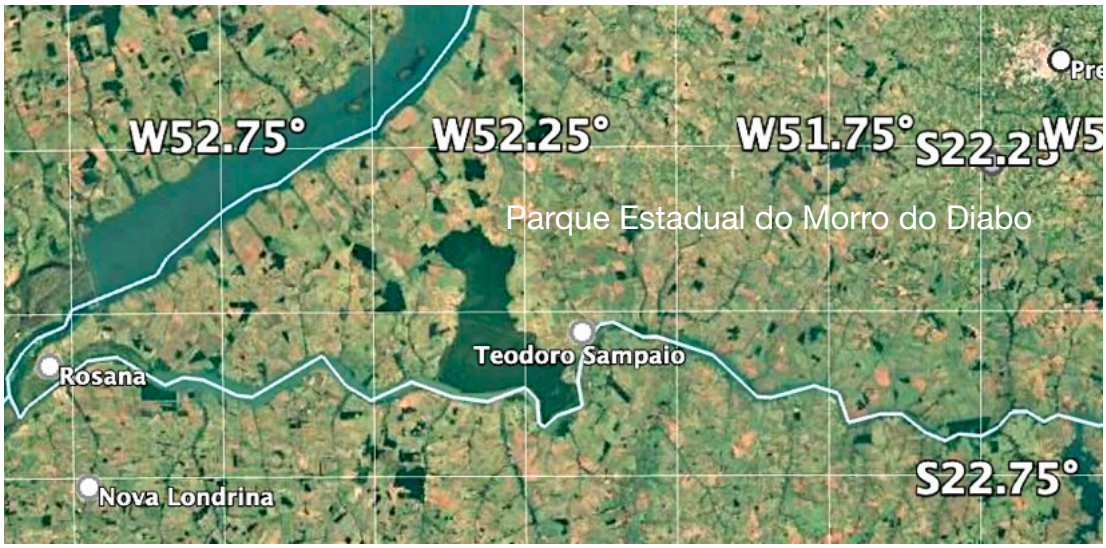
Detail of the restoration of the BL Corridor at the northern end of the Vecchi Ridge.

Hunting drove tapirs to extinction in Rio de Janeiro State. REGUA has reintroduced them, and they are now breeding there — as demonstrated by this recording from a camera trap there.

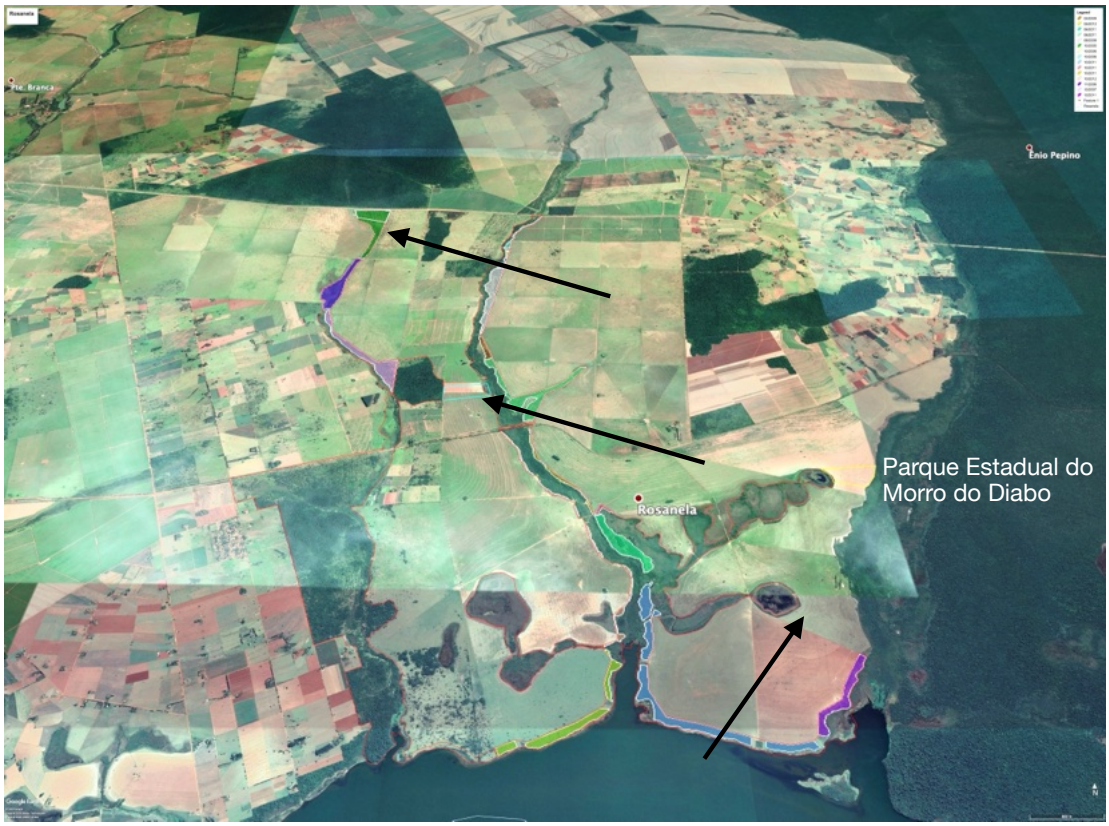
Views of the BL corridor from the ground

4: Rosanela farm, São Paulo State. Objective: to connect the Morro do Diabo State Park to the remaining fragments of forest in the western part of São Paulo State.

Agriculture has almost completely deforested the Western parts of São Paulo State. One remnant forest is a State Park that is almost the only home of the IUCN Endangered black lion tamarin. There are, however, some smaller, isolated forest patches to the north and west. Saving Nature funded the Instituto de Pesquisas Ecológicas to buy and restore areas to create several narrow corridors to connect these patches and the Park.



Top: Morro Diabo State Park lies in the western part of São Paulo State. It is isolated by extensive croplands, There are, however, a few even smaller areas of forest remaining. Bottom: Saving Nature funded the restoration of three habitat corridors as part of an effort to connect them.

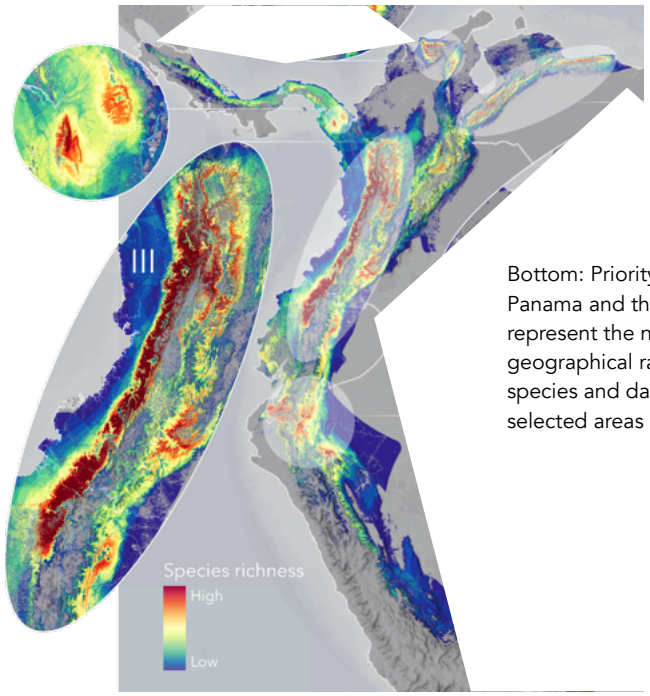


Two sets of examples of projects Saving Nature funded to acquire and reforest several narrow habitat corridors that connected to the main population of black lion tamarin.

Northern South America and Panama

The Andes run north to south along the western side of South America. At the north end, in Colombia, there are three roughly parallel ranges, with the Cauca River valley running between the Western and Central Andes, and the Magdalena River running between the Central and Eastern Andes.

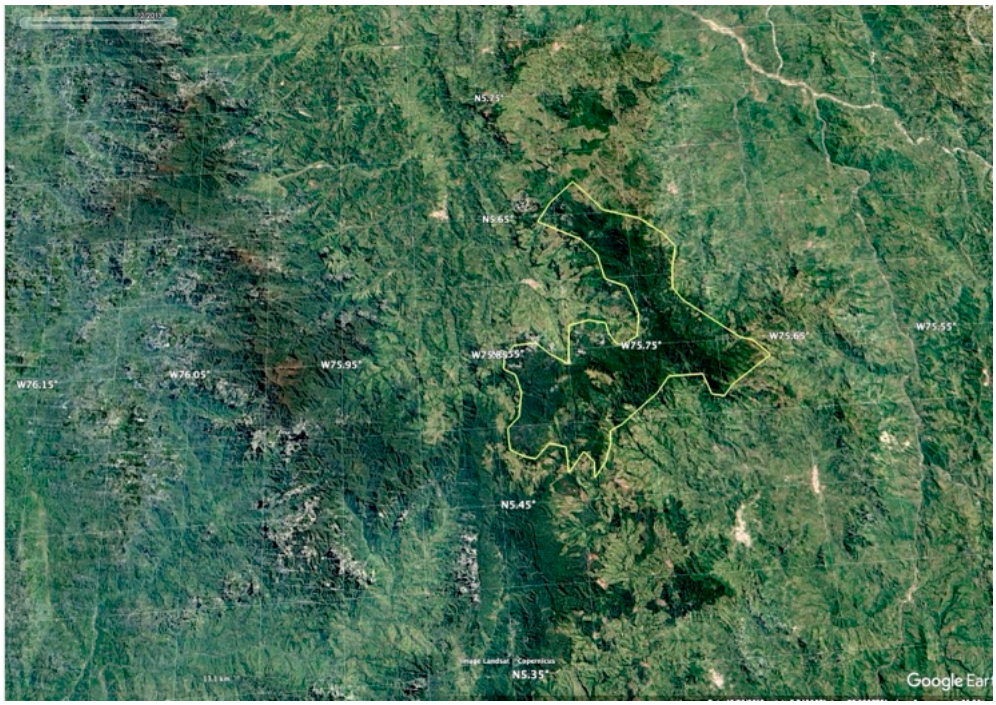
Top: Map of projects in Northern South America and Panama. Those labelled in black involve habitat corridors, while those labelled in red are projects to prevent habitat loss and fragmentation.



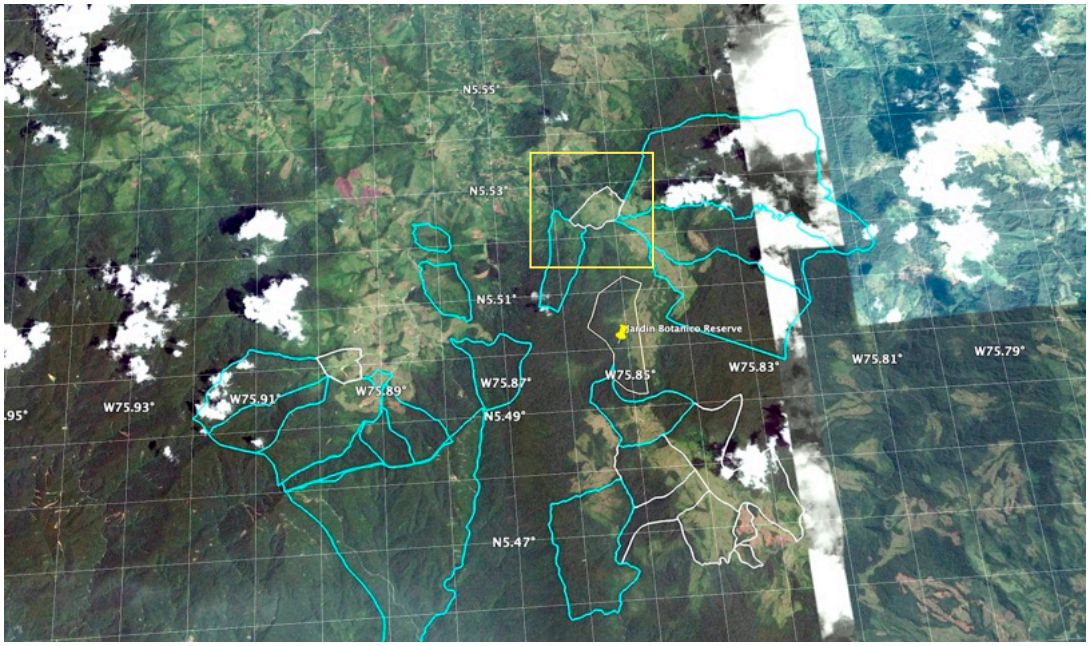
Bottom: Priority setting for bird species in Panama and the Northern Andes. Colours represent the numbers of species with small geographical ranges, with blue being few species and dark red many. The insets show selected areas in detail. From Medina et al. 2024

5. La Mesenia, Western Andes. Objective: to connect an isolated fragment of forest to the main chain of forest to the west. La Mesenia lies about 70 km south of Medellin

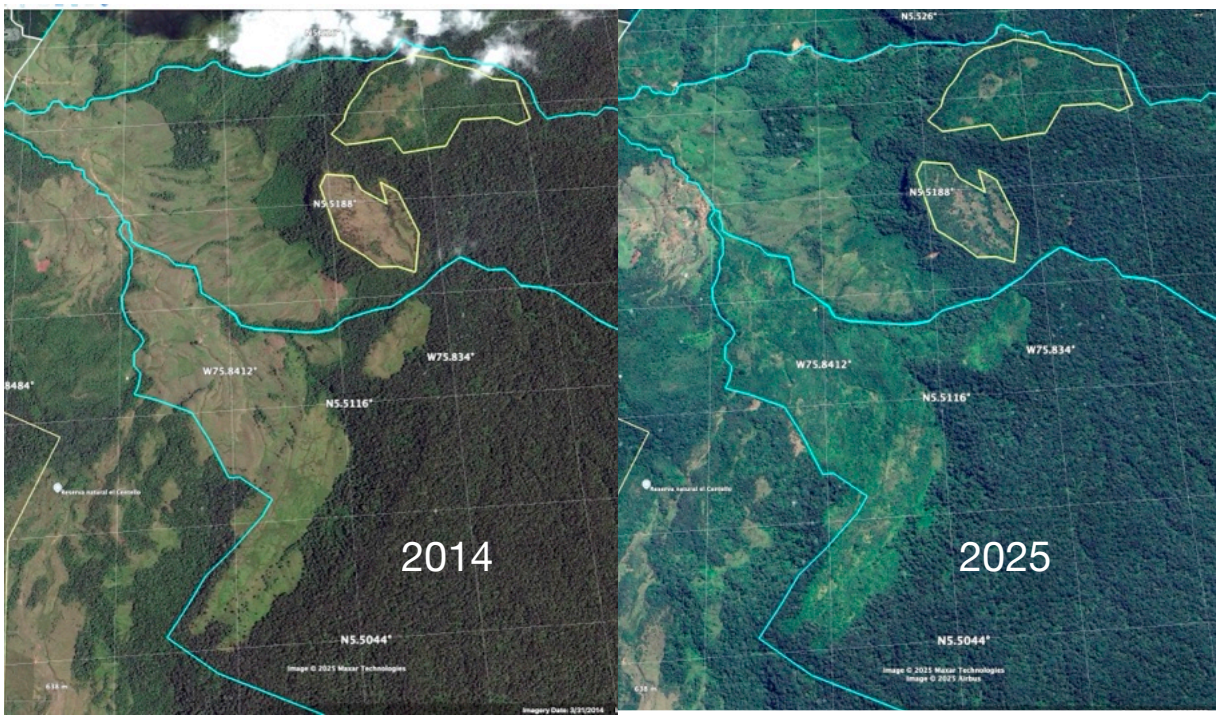
Saving Nature has helped our partner, Fundación Bioconservancy, acquire properties and reforest them in two adjacent valleys. In both cases, the original forest was cleared for crops or cattle pasture. The western one houses the organisation's field centre. The clearing of the eastern one, the Macanas Valley, created the isolated forest area to its east outlined in yellow in the top image.



Top: The chain of the western Andes has a more or less continuous montane forests that run from the top left to the bottom middle of this image. Highlighted in yellow, however, is an area of about 18,000 hectares that was isolated from these forests by deforestation that spread up the valleys from both the south and north.



Bottom: Outlined in turquoise, details of purchases funded by Saving Nature, proposed acquisitions (white), and that managed by a regional botanic garden (also white). The yellow square shows an area viewed in more detail on the next page.



A comparison of part of the restoration done in the Macanas Valley. The southern of the two areas — Lucretia — has been already planted, while the more northerly one —Puma — is a more recent purchase. The areas outlined in yellow are hard to access but already showing substantial natural regeneration since our partners purchased them and removed livestock. Saving Nature funded properties are outlined in turquoise

Bottom: Cassidy Horn's poison-dart frog, *Andinobates cassidhornae*, one of many species new to science discovered at La Mesenia.

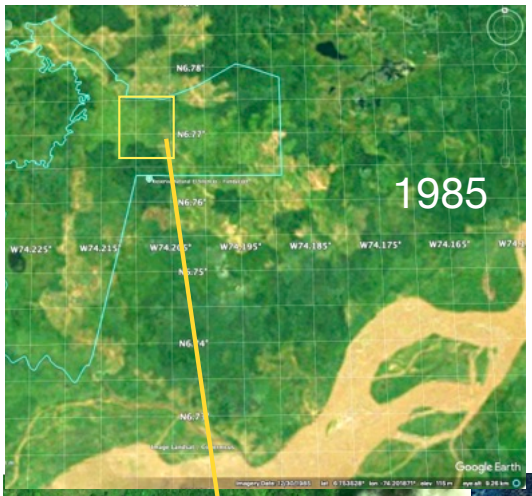
This area is one of the most poorly explored in South America, and new species of plants and animals continue to be discovered here.

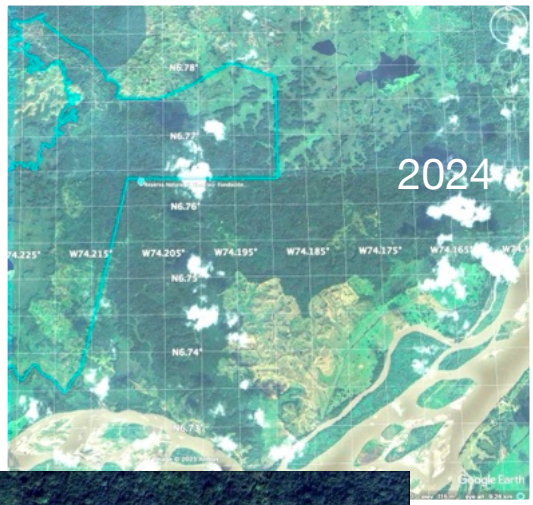
6. El Silencio, Colombia. Objective: to connect isolated forests in the lower Magdalena Valley. Supporting our partners at Fundación Biodiversa Colombia, we have helped them purchase and reforest key properties.

Top: Outlined in turquoise, the location of the property that Saving Nature helped fund on the west side of the Magdalena River.

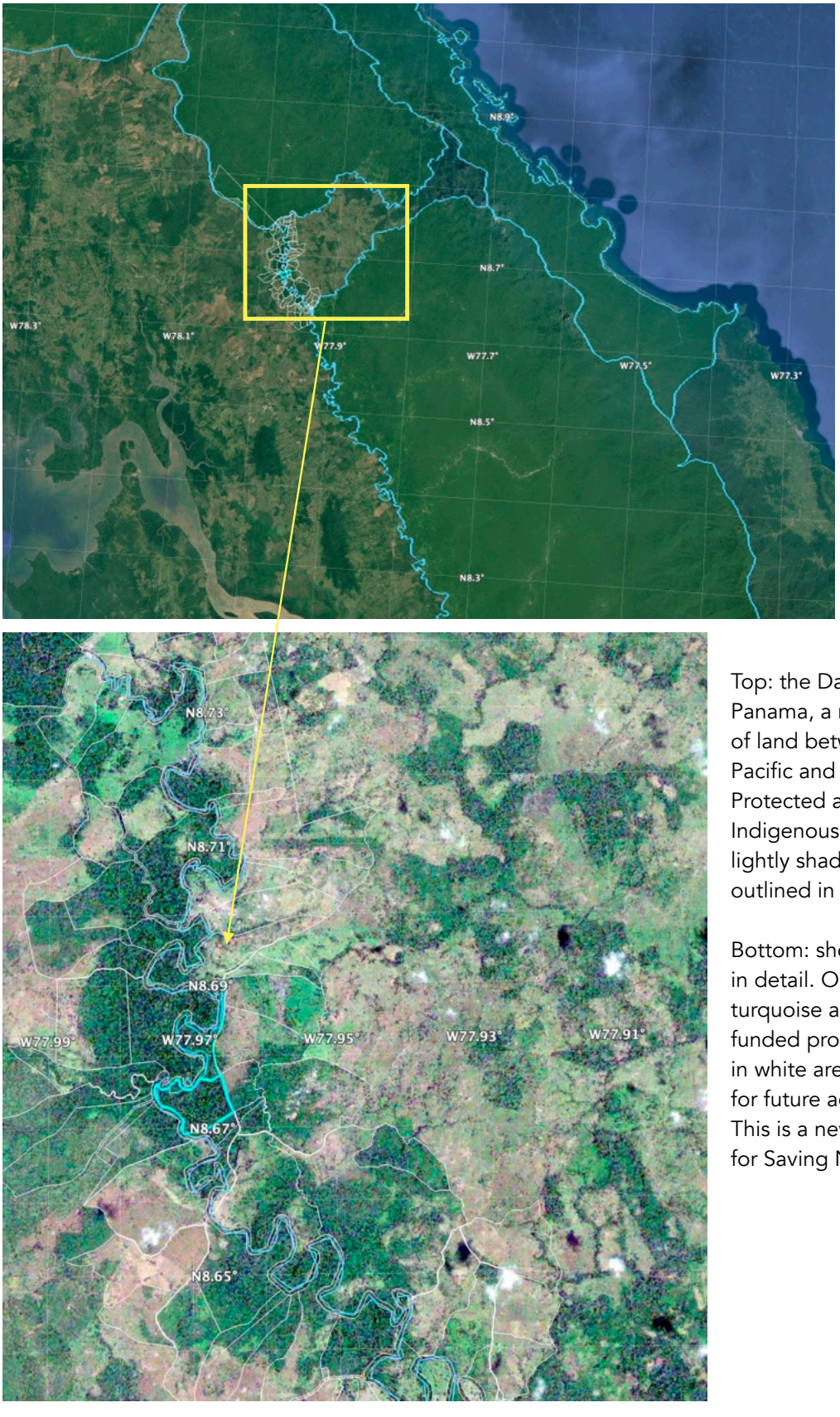
Middle: A comparison of the area before and after restoration.

Bottom:a detail of one area of restoration.





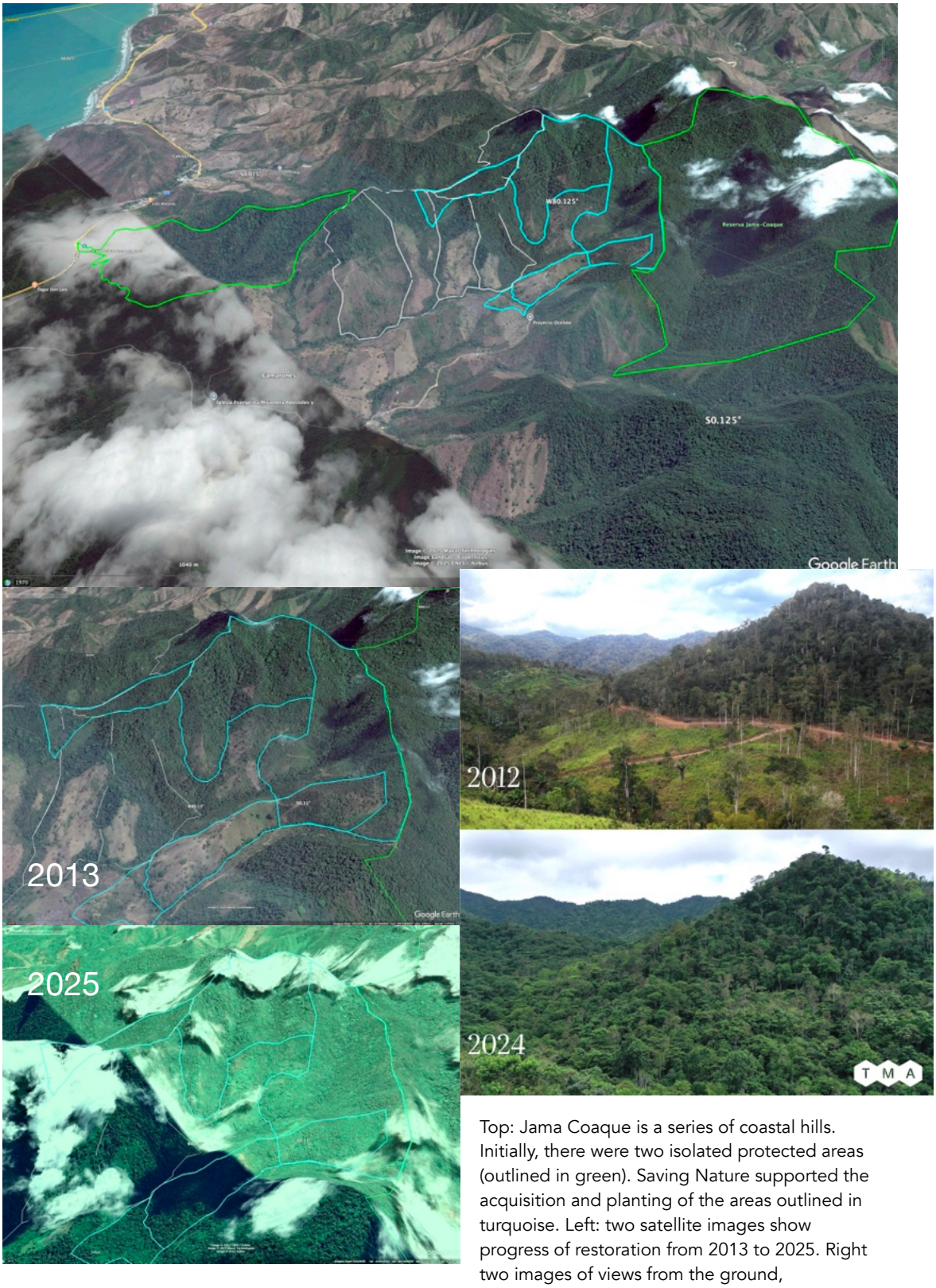
7. Darién Gap, Panama. Objective: to create a corridor in lowland Panama to connect two Indigenous areas that have retained their forests. The 2025 acquisition, to be followed by one currently in negotiation, strengthens the movement corridors between Emberá and Wounaa territories. Our partner is Endangered Rainforest Rescue.



Top: the Darién gap of Panama, a narrow strip of land between the Pacific and Atlantic. Protected and Indigenous areas are lightly shaded and outlined in turquoise.

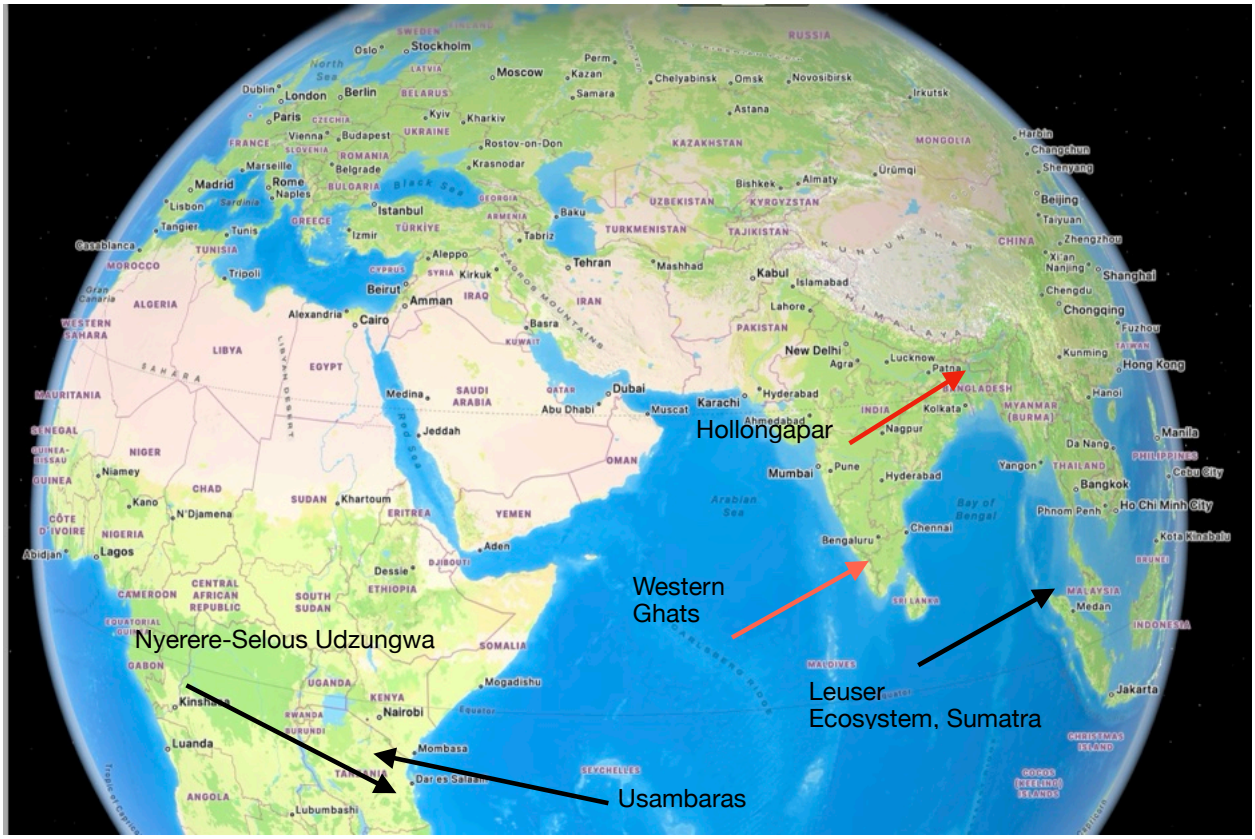
Bottom: shows the area in detail. Outlined in turquoise are already-funded properties, and in white are properties for future acquisition. This is a new project for Saving Nature.

8. Jama Coaque, Ecuador. Objective: to connect two isolated forest reserves, Bosque Seco, Labor Loor, and Jama Coaque. Saving Nature funded the Third Millennium Alliance to create a corridor of restored forests between two existing reserves.



Top: Jama Coaque is a series of coastal hills. Initially, there were two isolated protected areas (outlined in green). Saving Nature supported the acquisition and planting of the areas outlined in turquoise. Left: two satellite images show progress of restoration from 2013 to 2025. Right two images of views from the ground,

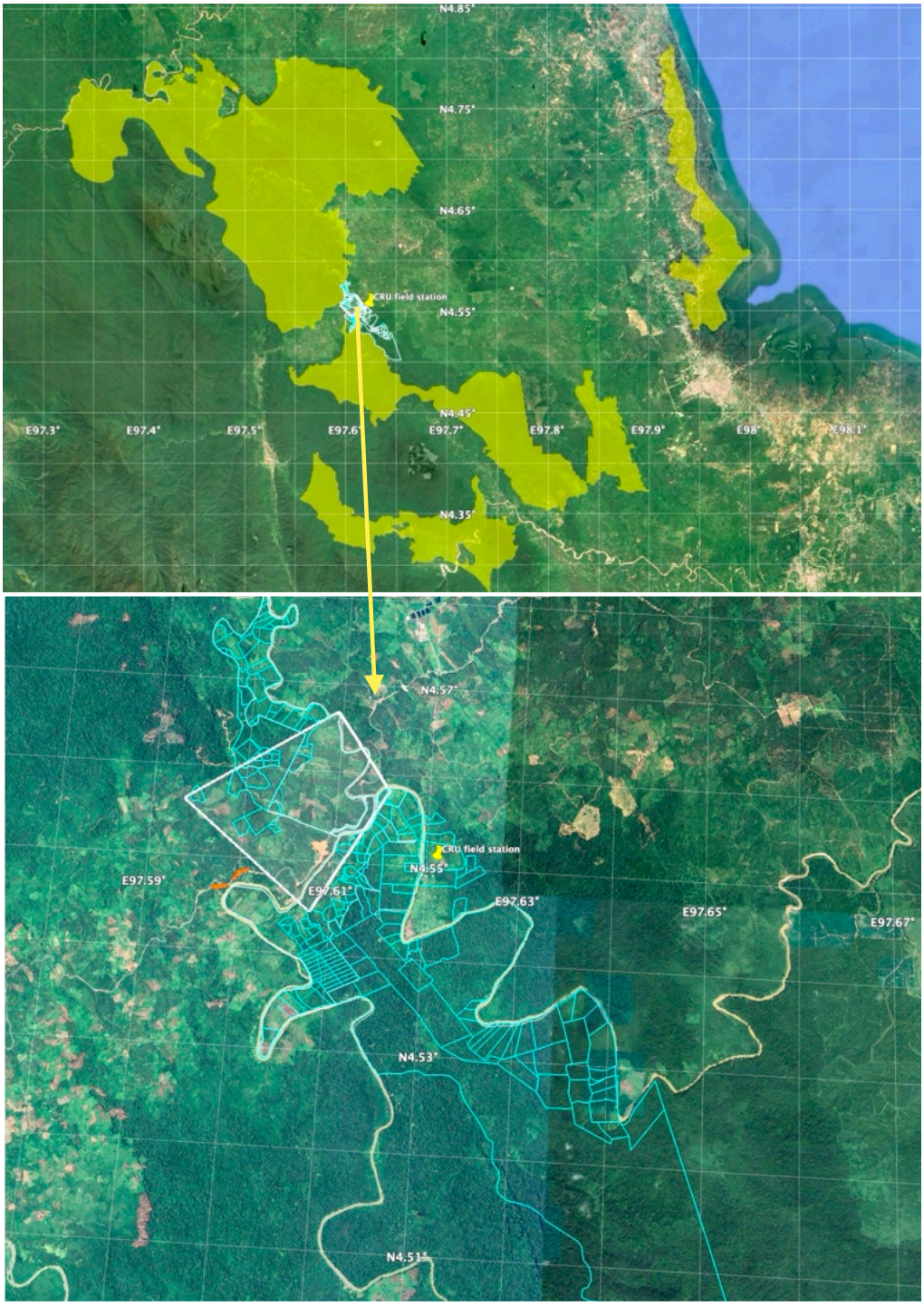
Map of projects in Africa and Asia. Those labelled black involve habitat corridors, while those in red are projects to prevent habitat loss and fragmentation.



9 Leuser Ecosystem, Northern Sumatra, Indonesia. Objective: to create a habitat corridor between two extensive tracts of forest.

Saving Nature supports a local NGO, Forum Konservasi Leuser (FKL), in buying land to connect these forests. There are many small properties — each outlined in turquoise in the figure. Our approach has been to fund FKL a few at a time. The success of this corridor is becoming apparent in the various species that they capture in camera traps that move through this area.

Elephants and tigers are already using the corridor to move between the extensive forests.

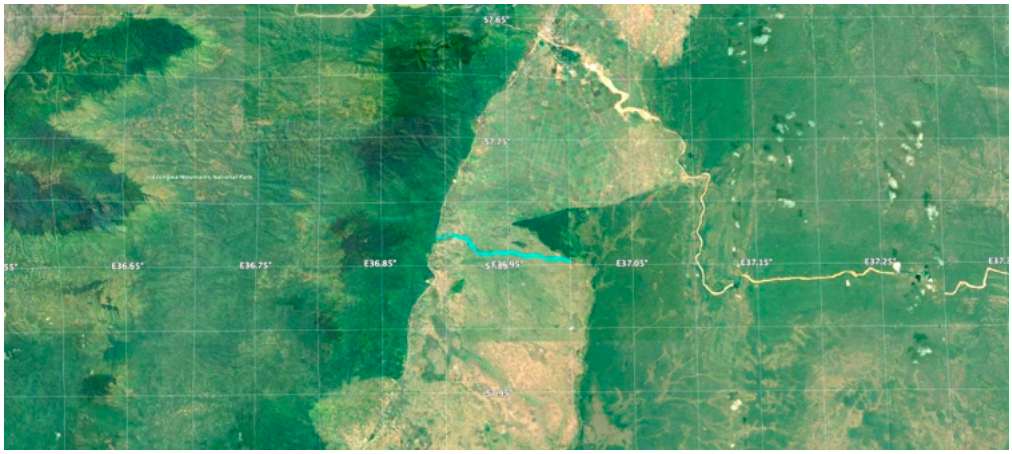


Top: areas on the northern end of Sumatra highlighting existing protected area in light green.

Bottom: Saving Nature's progress to date in funding FKL's purchases — outlined in turquoise. The area within the while polygon is the area that is our priority for further purchases.

10. Nyerere-Selous to Udzungwa Mountains wildlife corridor, Tanzania. Objective: to aid the construction of a wildlife corridor between the Udzungwa Mountains and the Nyerere-Selous National Park. It is led by the Southern Tanzania Elephant Program.

Because corridor creation in this region requires coordination among multiple landowners, community leaders, and government authorities, progress has taken place in carefully sequenced steps. These complexities explain why the work involved several phases, including easements, underpass design, and eventual government gazettement.



The Nyerere-Selous to Udzungwa mountains wildlife corridor is an ambitious effort to allow wildlife — especially elephants — to move between the mountains in the west and Tanzania's largest National Park in the east. There is a road in the way!

Top and middle: outlined in turquoise are properties owned by landowners who agreed to conservation easements.

Saving Nature has funded the development of the land and vegetation adjacent to the underpass to encourage animals to use it rather than to cross the road. On the road, there is a substantial risk of catastrophic collisions with trucks and cars.

Creating corridors in Africa pose special challenges, not least of which is land tenure. Land is often owned by communities, and so buy-in from local leaders and the many individuals can be difficult to achieve. When we were approached by the Southern Tanzania Elephant Programme, we were impressed by their request to help with the landscaping and grading of suitable elephant paths in and out of the underpass at the forest edge of the Udzungwa Mountains National Park. This is only one part of a complex project, but one that will be a model for other corridors in Tanzania and elsewhere.

Elephants regularly cross this 12 km route. There are plans to fence the route to channel elephants along it.

The Tanzanian government officially gazetted this project in July 2024.

11. Eastern Usambara Mountains, Tanzania. Objective: to aid in the creation of a habitat corridor to connect isolated forest fragments.

The Usambara mountains is one of a set of mountains that range from the Taita Hills in southern Kenya south to the Udzungwa Mountains in Tanzania. These mountains rise above the dry savannahs, catch plentiful rain, are covered in forests, and are a biodiversity hotspot. Work done with Professor Bill Newmark (Newmark et al. 2017) suggests that connecting these fragments would be very effective in reducing the rates of species extinction there. However, their productive soils encourage extensive conversion to agriculture, and land prices are high; as a consequence, Saving Nature has not been able to fund proposals in, for instance, the Taita Hills, an area with several endangered species.

Victor Mkongewa of Amani Friends of Nature approached us for funds to establish a nursery as a first step towards reforestation, which we did: see photograph.

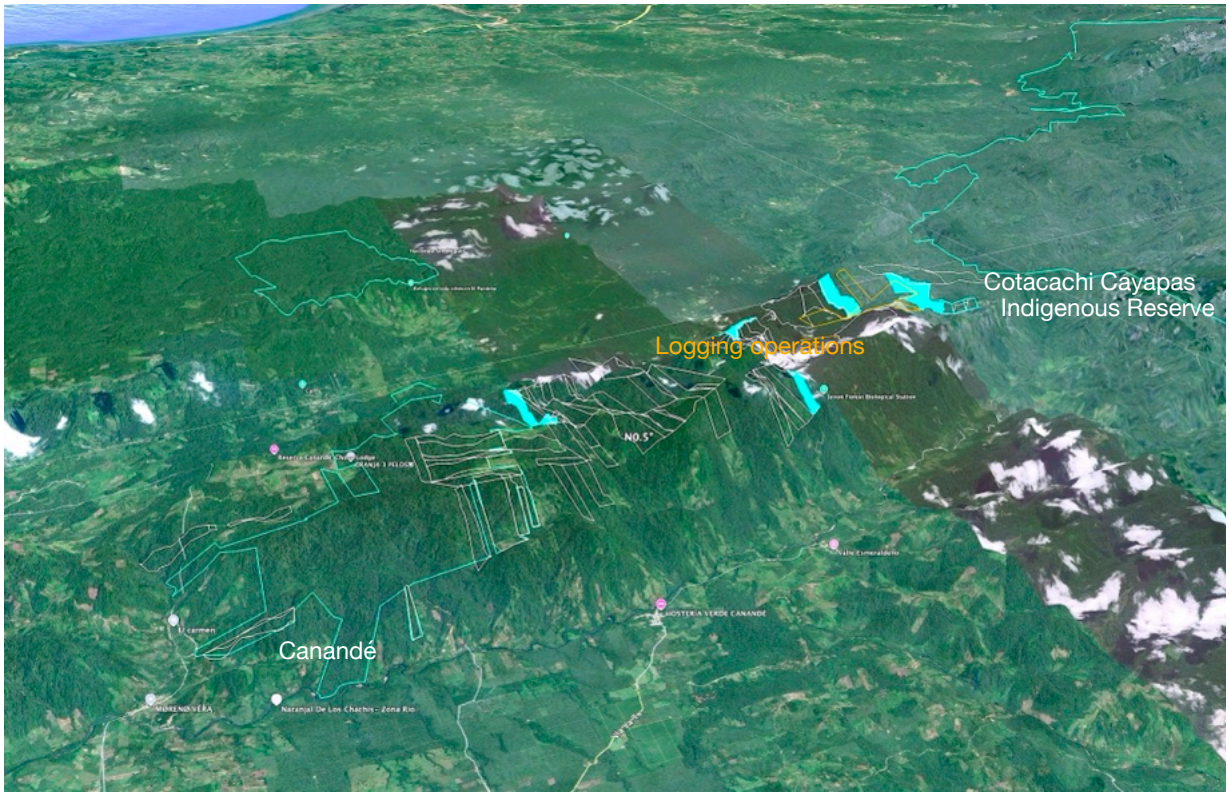
The cost of creating the corridors needed was beyond Saving Nature's capacity in 2022, but we offered to help in the future. We were delighted to hear in 2025 that the group was able to raise the necessary funds. We remain in touch and are willing to help in the future.

Preventing Fragmentation

12. **Canande, Ecuador. Objective:** to prevent roads from fragmenting forests connecting existing protected areas.

Unlike Saving Nature's corridor projects, where before and after satellite images show the success of restoration, here the aim is to keep the forest unchanged, that is, intact. The coastal forests of Ecuador — the Chocó — are one of the most threatened rainforests. Saving Nature worked with an Ecuadorian NGO, Fundación Jocotoco, to protect the forests on a spur of mountains that stretched from the Andes to the east, down towards the Pacific Ocean.

Saving Nature's strategy here is not to be the largest funder of properties. Rather, it could act quickly and strategically to buy properties to prevent roads from being cut into the forest. It became clear that a major threat was an Ecuadorian forestry company. As it happened, Saving Nature Board member Brian Rodgers recognised the name on wood products he purchased from a major US Hardware Store. Working separately from Saving Nature, he and Saving Nature President Stuart Pimm met with that company's management and got a commitment from the forest company, who were called to that meeting, not to cut virgin forests in this area.

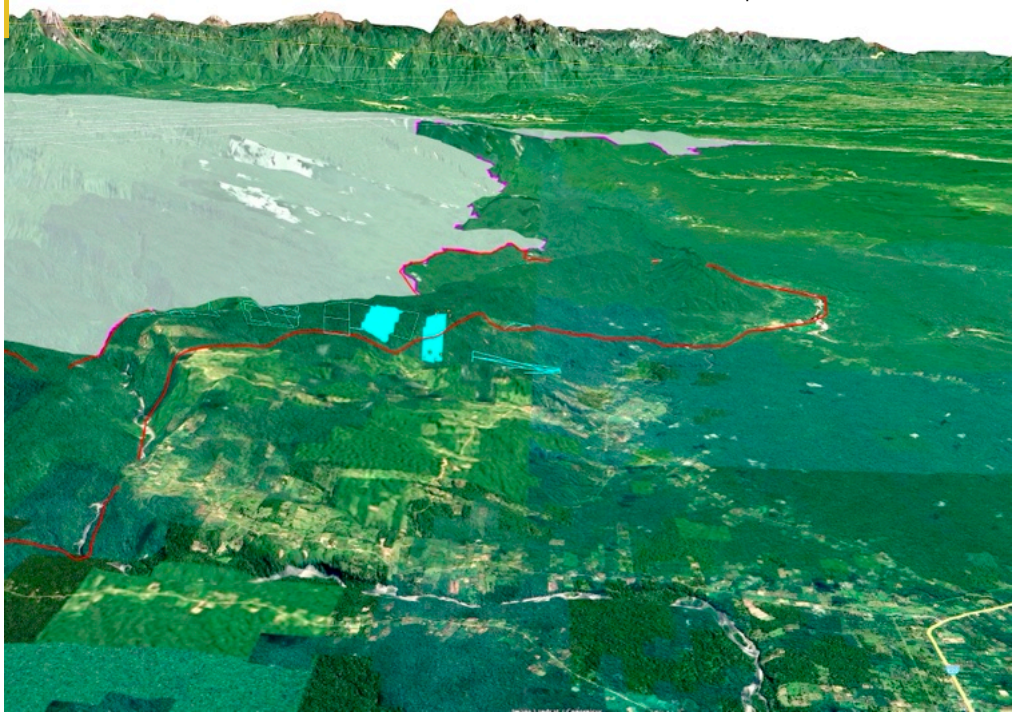


The images shown look northeast to the Cotacachi Cayapas Indigenous reserve (top right) and southwest to the Canandé Reserve (bottom left). The lowland areas are almost completely deforested.

Outlined in white are various properties acquired by Fundación Jocotoco to protect this area. Those funded by Saving Nature are shaded in solid turquoise. The area outlined in orange was the location of logging operations.

13. Sumac Muyu, Ecuador. Objective: To prevent roads and settlements from encroaching on protected areas.

Outlined in red: indicates an area of high risk of encroachment. Looking north, the image stretches from the high Andes in the west down to the Amazon drainage in the east. There are large protected areas, shaded in grey. A major road runs from Ecuador's capital Quito, down through Loreto to Puerto Fransisco de Orellana, on the Napo River — a major tributary of the Amazon. In various places, side roads run north towards the Sumac Galeras National Park and land is deforested along them. The yellow line is the equator.

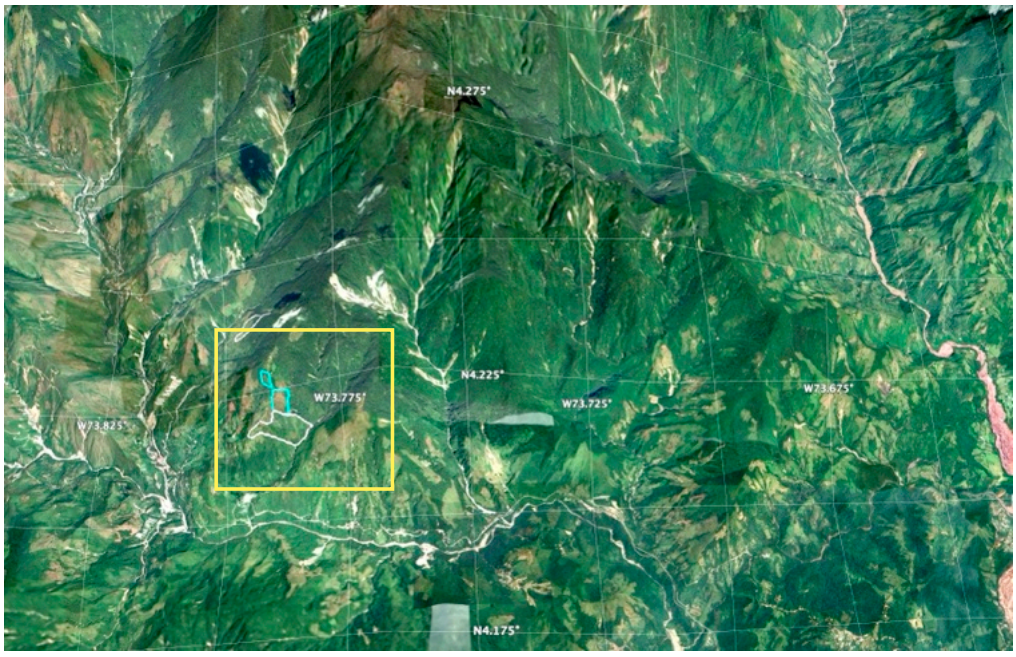


In solid turquoise, the map shows the details of the area of Saving Nature's funding. Fundaçion Sumac Muyu was seeking funding to protect land where a salient of deforestation has spread from the major road in the bottom right of the map, up towards the reserve. Although they had funding from several others (outlined in turquoise), Saving Nature provided emergency funding to enable them to purchase properties quickly to stop roads and the deforestation that would follow.

On the east slope of the Andes, stretching from above the tree line down to the Amazon basin, lie a series of large protected areas. Just south of the equator, these areas, shaded on the map, cover an exceptional elevational gradient. Few places on Earth hold so many different species, and many are endemic. Although legally protected, Ecuador's resources are limited. Various conservation organisations are working to create reserves that will act as a buffer, especially on the south side, and prevent encroachment on the Park. Some of these areas are Indigenous reserves, where the local people protect their land from intrusions.

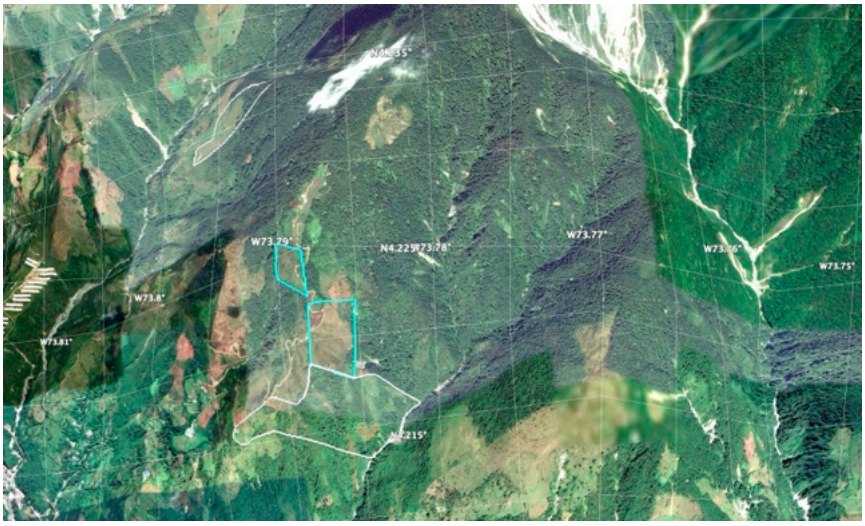
14. Camaná, Colombia. Objective: to stop the spread of agriculture into the upland forests of the Eastern Andes.

The threats to the Eastern Andes are apparent in the satellite image. Moving upslope and from the major highway that runs from Bogota to Villavicencio, forests are being cleared for high-value crops, often for export. (The white objects in the left of the bottom image are greenhouses.) A new species of bird, the Cundinamarca antpitta was discovered here and described in 1989. Funds from the American Bird Conservancy enabled the establishment of the Refugio del Tororoi now managed by Fundación Camaná. It protects the forests where the bird lives and, importantly, several other threatened species.



Top: There has been extensive habitat loss in the Eastern Andes, with the lowlands almost completely deforested. The higher elevations are still intact, for the present, but the need to prevent agricultural expansion is clear. The area of the yellow box is shown below in detail.

As with other projects, Saving Nature prefers not to fund intact forests — there are others who do this. We funded Fundación Camaná to buy the properties outlined in turquoise. Pending their successful reforestation, we will likely consider funding other areas, such as those outlined in white.



Bottom: Details of the areas funded by Saving Nature are outlined in turquoise and those being considered outlined in white. The Refugio del Tororoi is upslope from these.

15. Hollongapar, Assam, India. Objective: to expand the existing reserve to the extent possible, with the priority to reforest areas down to the river.

Hollongapar lies in the wide valley of the Brahmaputra River, about 20 km south of the river itself. It is isolated by tea plantations on three sides and a river to the West. While connecting it to other forests is impractical — they are too far away — the importance of this forest is such that Saving Nature seeks to help its local partners expand it, whenever possible, especially in the Western side toward the river Bhogdoi.

Expansion and conservation of Hollongapar Gibbon Sanctuary (20 km^2) in Assam, India, is attractive to SavingNature, not only for its outstanding biodiversity, but because it fits our goals of connecting fragments. In this case, we see the potential for connecting the reserve across abandoned agricultural land to a river just a few hundred meters away. We have (1) Purchased ~0.5 ha of secondary growth next to Sanctuary. While small and expensive, it has provided an indication of intent. The land is in the process of being transferred to the Assam forest department to eventually become part of the Sanctuary. (2) Been working with local people who own land adjacent to the sanctuary, funding tree planting projects on their land; and (3) Made progress in lobbying the forest department regarding reforestation near the river.

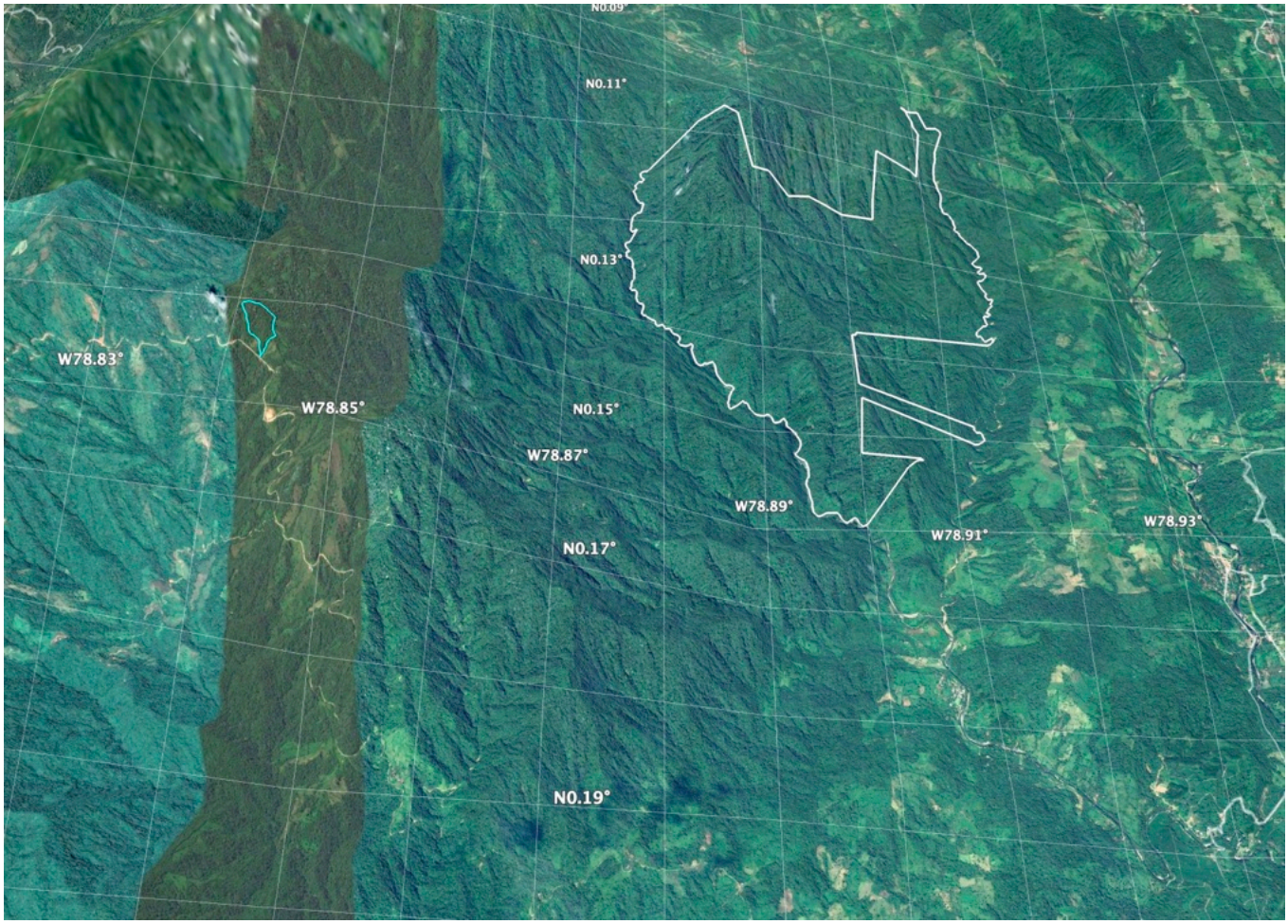
Saving Nature remains willing to help with more acquisitions as land becomes available.

Helping Partners

Saving Nature now has considerable experience in helping local conservation groups buy lands and restore their natural habitats. Moreover, its 501(c) (3) status allows donors to receive tax benefits. Consequently, sometimes donors or other non-profits ask us to handle projects, whereby funds flow through us to organisations that buy land, restore it, or both. Such projects have to meet Saving Nature's criteria.

16. Mashpi Tayra, Ecuador. Objective: to protect a large remnant of forest from encroachment. On the Western slope of the Andes, south of the Canandé project (12 above), is an area of about 8,000 hectares of good quality forest, of which only some is protected (outlined in white). Working with a local nonprofit, https://fsembrandoesperanza.org/en/reserva/ our colleague Xavier Muñoz raised funds from which a key property was purchased (outline in turquoise.)

Saving Nature does not drive the agenda here, but the overall aspiration is surely to protect these 8,000 hectares from encroachment — a mission with which we fully approve. Areas along roads are often the foci of deforestation.



This image is looking south.

17. Virginia, USA. Objective: to assist in land acquisition that supports cultural and ecological restoration. The Appalachian Mountains are one of the most important areas for biodiversity in the USA with a rich diversity of endemic species of fish and amphibians, in particular (see Jenkins et al. 2015). They also are important culturally. Saving Nature is working with NDPonics.to acquire and protect areas in Virginia. Quoting from their website www.ndponics.org

NDPonics is an Indigenous-led nonprofit dedicated to restoring the ancestral homelands of the Yésah people. through land rematriation, Traditional Ecological Knowledge (TEK), and regenerative practices, we protect sacred sites, waters, and ecosystems to ensure cultural and ecological renewal for future generations.

We envision a living landscape where Yésah people and lands heal together—where sacred mountain peaks, old-growth forests, headwater streams, and native species thrive once again. We see a future where cultural ceremonies, language, and ecological practices are rooted in place, and where Indigenous-led conservation sets a model for the region and beyond.

Given the cultural sensitivity of these areas, we do not provide a map.

Supplementary Information

History

Saving Nature, originally established as SavingSpecies, began in 2006 at a meeting in California where Founder Professor Stuart Pimm presented an idea to a group interested in slowing extinctions. The group supported the concept and funded the first major grant to restore forests at Fazenda Igarapé in Rio de Janeiro State. Additional support from Pimm's Royal Netherlands Academy of Sciences award in 2006 enabled the creation of a website and early public outreach.

At that time, the Environmental Media Association managed the funds. In its early years, SavingSpecies received several large contributions and made targeted grants to partner organisations. Interest grew steadily, leading to SavingSpecies' incorporation in North Carolina in 2010. A major milestone came in 2015 with a $750,000 grant from the Leonardo DiCaprio Foundation.

Erin Willigan joined as Executive Director in 2017. In 2019, SavingSpecies dissolved, and Saving Nature was created with the same Executive Director and scientific advisors but updated management, bylaws, and nonprofit registration. These developments form the foundation of the past decade. They mark the transition from an early idea into an organisation capable of supporting major conservation initiatives, forging long-term partnerships, and delivering tangible results in biodiversity hotspots. This document reviews that progress.

An annotated bibliography

The science that Professor Pimm developed provides the widely accepted statistic that human actions are causing "a rate of extinction now 1,000 times higher than the normal background rate" (Al Gore, 2006, *An Inconvenient Truth*). See references 1 - 3 below.

With the late Professors E.O. Wilson and Tom Lovejoy, along with Professor Peter Raven (all Science Board members) and others, Pimm recognised that threatened species are concentrated in key areas called biodiversity hotspots. These areas have exceptional numbers of species endemic to them and, alas, very high levels of habitat loss.

Moreover, the habitats that remain are often in small fragments, where science shows that extinction rates will be high. It is for this work that Pimm was awarded the Prize in 2006 and three subsequent international prizes. This work suggests two immediate actions. The first is to restore habitat corridors to reconnect isolated habitat fragments into more continuous habitats large enough to support viable species populations. The second is to prevent habitat fragmentation, wherever possible, often by blocking roads into pristine forest areas.

Several interrelated themes of Professor Pimm's research motivate what Saving Nature prioritises.

Species are going extinct at rates 100 to 1,000 times the natural background rate.

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We develop state-of-the-art maps of where threatened species occur.

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