



# Saving Borneo's Orangutan Corridors

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The latest update on the land purchases you supported, as extension of the Pangi Virgin Jungle Reserve is now underway



# From Pangli across the river to Keruak

How HUTAN is piecing Kinabatangan's fragmented forests back together into a wilderness fit for orangutans

Last summer, WLT's partner HUTAN came to us with an exciting opportunity: extend the Pangli Virgin Jungle Reserve up to the banks of the Kinabatangan River so elephants could swim safely across to the Keruak Corridor. A year on, your magnificent response to our appeal is allowing HUTAN not just to expand Pangli but to further protect the orangutans of Keruak itself.



In June last year, when we first asked our supporters to help HUTAN protect two critical forest properties adjoining the Pangli Virgin Jungle Reserve, our fundraising target was £150,000. At just 10 acres, the two patches of surviving forest with their critical river access, known prosaically as 'Lot 14' and 'Lot 15', had importance for the Kinabatangan landscape far outweighing their area. Although buying them would be expensive, it was essential.

We are delighted to report their purchase is now complete, and they are currently being gazetted as part of the Pangli Virgin Jungle Reserve, giving them the highest possible protection under Malaysian law which means only wildlife rangers and researchers with permits will have access to the forest, and the hornbills and pangolins of Pangli will continue their existence undisturbed. The protection of forest on both sides of the river also now secures the future of a safe crossing place for elephants, which like all larger species are especially at risk in a landscape where 80% of primary forest has been cleared.

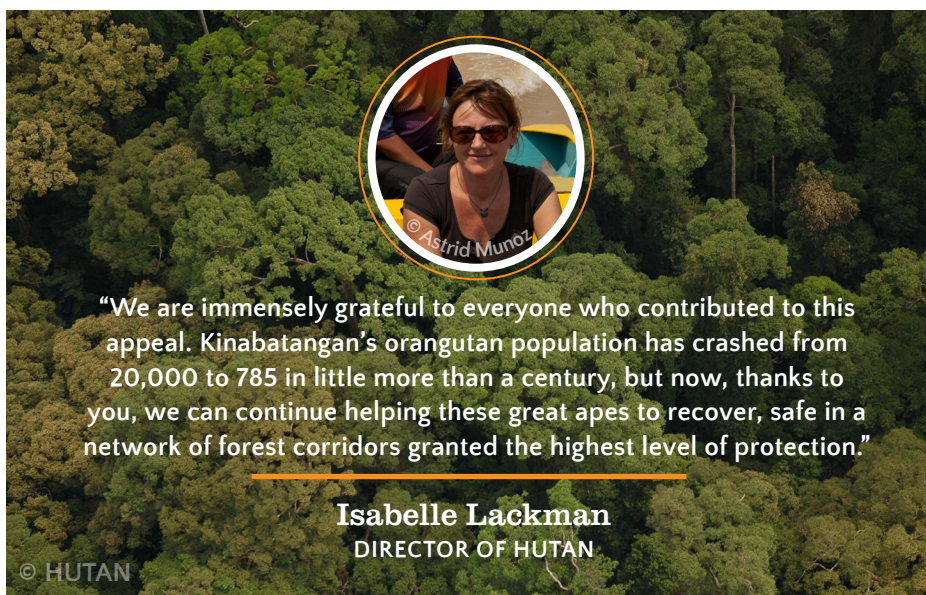
But your response to last summer's appeal exceeded our highest

expectations. Our target was achieved, reset at £300,000, and blown away again in just six weeks, as you gifted us an extraordinary £420,000 for the future of Kinabatangan. In discussion with HUTAN we realised you had given us the opportunity to protect further plots north of Pangli, across the river in the Keruak Corridor. HUTAN is now exploring options around three potential sites which play a key role in Keruak and are known bases for orangutan families they have studied over many years. Finalising expansion of Keruak is likely to be a slow process, but HUTAN are confident their work here will pay off.

Before HUTAN began its work in the Lower Kinabatangan Floodplain, the protected rainforest areas there were dangerously fragmented. Though each reserve individually teemed with life, their complete isolation was unsustainable. Forest clearance was gathering speed around the reserves, putting pressure particularly on species like the orangutan, largely solitary

creatures of unbroken forest tracts. Populations were plummeting. HUTAN, founded in 1996 to examine the reasons for the fall in orangutan populations, shifted its aims to directly conserving and restoring forest habitat as it became clear saving the species in the area required the immediate protection of a viable ecosystem.

HUTAN's partnership with World Land Trust started in 2008 and in 2013 our supporters helped fund connection of two reserves through the Borneo Rainforest Appeal, creating the Keruak Corridor. Purchases have continued as land became available. Now, by extending the Pangli Virgin Jungle Reserve north to the banks of the Kinabatangan, the parcels of land bought through last summer's appeal will become the latest vital link in the reconnection of Kinabatangan's vibrant forests. With the river connection in place, you have helped to make the Lower Kinabatangan Floodplain a more cohesive conservation landscape.



"We are immensely grateful to everyone who contributed to this appeal. Kinabatangan's orangutan population has crashed from 20,000 to 785 in little more than a century, but now, thanks to you, we can continue helping these great apes to recover, safe in a network of forest corridors granted the highest level of protection."

**Isabelle Lackman**  
DIRECTOR OF HUTAN



## A forest protected as it deserves

Lots 14 and 15, with their wealth of wildlife, are in line to be designated at the highest level

Lot 14 and Lot 15 lie on the southern bank of the Kinabatangan River, joining it to the Pangli Virgin Jungle Reserve.

A mix of lowland and riparian forest, they are part of a wider ecosystem that supports a huge amount of biodiversity, including the Critically Endangered Sunda Pangolin, one of the most trafficked animals in the world.

The life of these rainforests is complex and breathtaking, with 215 recorded mammal species, 314 bird species and over 100 species of reptile. The diversity of amphibians is bewildering, and at least two taxa of frogs known from HUTAN's surveys in Kinabatangan are yet to be formally described. HUTAN's work has also demonstrated how completely the fruit-eating and nectar-feeding birds of Kinabatangan rely on the survival of good-quality forest habitat.

The orangutans, "people of the woods" in the local Malay language, are the best-known inhabitants of these forests, but they live here alongside many other species of primate. They also share their home with Bornean Elephants and the Sunda Clouded Leopard, as well as the smallest bear in the world, the arboreal Sun Bear.

Vital habitat for all these species will be reconnected when Lot 14 and Lot 15 are gazetted as an extension of the Pangli Virgin Jungle Reserve. Pangli is a Class 6 reserve – a title recognised by the IUCN as equivalent to their 1a reserve class, giving the most complete protection possible to the habitat and species found there. The only access will be for biodiversity conservation and research, allowing HUTAN to protect and monitor this extraordinary place.



### Connecting protected areas in the Lower Kinabatangan Floodplain



- Appeal-funded purchases
- HUTAN reserves
- Protected areas







© HUTAN

Bornean Elephants are strong swimmers. Thanks to your support they now have a protected route across the Kinabatangan River, linking their forest homes to north and south.



© Michael Pitts

Toothless, scaled, unique: the ant-eating Sunda Pangolin is Critically Endangered and one of the world's most trafficked animals. At Pangl, HUTAN provides stringent protection to secure their future.



© Spencer Wright

Camera-trap surveys show numbers of Sunda Clouded Leopard in Sabah are falling sharply. Predators need connected landscapes and the forests you have supported are vital for this secretive cat.



© Sanjitpaal Singh - JITSPICS

Rainforest clearance threatens the Rhinoceros Hornbill by destroying the tree cavities it needs for nesting. HUTAN can now expand its programme providing specialised nestboxes for this Vulnerable species.



# Taking the pulse of a rainforest

How HUTAN works daily to protect and monitor the lush rainforests of Kinabatangan

HUTAN manages the Pangi forest reserves through a long-standing agreement with the Sabah Forestry Department and their Wildlife Department, and this arrangement will be extended to cover the area newly protected through your support. The forest here is intensely monitored, as HUTAN's Isabelle Lackman explains. *"We have 15-20 staff patrolling the area 24 hours a day, we have wildlife wardens patrolling almost every day – making sure there's no encroachment or logging activities."* This level of effort is vital not just to protect the forests themselves, but because of ongoing human threat to the population of Edible-nest Swiftlets within the existing Pangi reserve. Protecting the swiftlets of Pangi from unsustainable nest harvesting was the starting point for HUTAN's collaboration with the Forestry Department, and HUTAN continues to work to keep out poachers who target active nests – ones containing eggs and hatchlings – and allow the local community to return to their centuries-old sustainable harvesting of nests no longer in use. The cave entrance is now monitored around the clock and the massive population recovery from 317 pairs of swiftlets in 2010 to over 5,000 today demonstrates how effectively HUTAN's team is working.



HUTAN undertakes regular primate monitoring surveys by boat along the Kinabatangan River, the best possible vantage point for easy access and minimal wildlife disturbance. In 2021 they recorded Long-tailed Macaque, Silvered Langur and the spectacular endemic Proboscis Monkey along the banks of Lots 14 and 15, confirming good local populations of these species, which will now benefit further from the expansion of their protected forests. Orangutans are seldom spotted from the river, but researchers glimpsed one individual on the northern bank within the Lower Kinabatangan Wildlife Sanctuary, as well as seeing Pig-tailed Macaques across the river in Keruak.



Funded through WLT's Keepers of the Wild programme, local ranger Berjaya Elahan has been working to protect the forests of Kinabatangan for many years, patrolling day and night to check for illegal activities such as poaching and logging. Now his regular evening patrol by boat will help keep Lots 14 and 15 undisturbed. A keen photographer and videographer, Berjaya is proud to know he is doing his part to keep the forests safe for future generations. His dedication has led him to become strongly involved with HUTAN's educational programmes, helping to inspire a new generation of conservationists.



With a 24-hour watch in place over their nests, Edible-nest Swiftlets can now breed safely in the caves of Pangi



## A new opportunity at Keruak

Your support gives HUTAN the chance to protect the orangutan families of the Keruak Corridor

Following the successful forest purchase at Pangli, HUTAN is working to consolidate protection across the Kinabatangan River, in the Keruak Corridor, and is looking at three key properties.

These patches of forest are important to the orangutan populations of Keruak and are regularly used by the families HUTAN has been studying closely. Orangutans may not spend much time socialising, but females have strong intergenerational bonds, and are philopatric, sticking close to the area where they were born.

Studying orangutans can only be done with the cooperation of the orangutans themselves, as HUTAN researcher Dr Felicity Oram explains. "For us it's a relationship of total respect with these animals. We don't engage or interfere in any way, and we know that if we're seeing one at all, it is because they're allowing themselves to be seen."

Starting with one female they named Jenny, who decided to trust the researchers enough to ignore their presence, HUTAN's team have gradually uncovered a complex intergenerational network of relationships – half-sisters, daughters, and cousins – forming the anchor of Keruak's orangutan population. For this network to remain unbroken, and for Keruak's orangutan numbers to remain stable or increase, as much forest must be protected as possible. Orangutans reproduce slowly, and their numbers here have crashed from an estimated 20,000 in 1900 to fewer than 800 in 2020.

Bringing these three new areas under strong protection for Jenny's family will significantly expand their forest refuge, and HUTAN is now working urgently to achieve this.





# Interview with Amanda Shia, Research Officer at HUTAN



Born in Sandakan District to the north of our project area, Amanda has worked for HUTAN since 2017 and is the principal investigator monitoring wildlife recolonisation in the Keruak Corridor.

## Can you explain the work you do in the Keruak Corridor, and what species you're looking for?

We currently use eight different monitoring methods to help us understand the biodiversity we have in Kinabatangan, particularly in the Keruak Corridor – a newly developed forest corridor in an oil palm landscape – that is being actively restored by HUTAN's reforestation team. We also monitor the adjacent landscapes – fragmented degraded forests as well as the plantation site – to compare species presence. Between 2019 and 2021, we recorded 140 vertebrate species across all sites – 78 birds, 42 mammals, 18 frogs and two reptiles – including 17 species categorised as Critically Endangered, Endangered or Vulnerable on the IUCN Red List.

Our camera traps have confirmed the presence of threatened species like the Bornean Elephant, Bornean Orangutan, Sunda Pangolin, Storm's Stork, Sun Bear and Crested Fireback, among many others! We place our focus on smaller animals, like invertebrates, frogs and rats, which give us a broader understanding of the biodiversity present in Keruak's reforestation site and healthy forest areas. With the installation of exciting new equipment, we are also hoping to establish baseline species through acoustic monitoring in the Kinabatangan!

## What other species do you see in your day-to-day work?

The Keruak Corridor and its adjacent landscape are always full of life. When we're on surveillance patrols we often see civets, macaques, monitor lizards, Sambar Deer, Malayan Box Turtles, and sometimes even a Short-tailed Mongoose, although these are more elusive.

## Why is it important to monitor wildlife in Keruak?

Reforestation work has only been ongoing in Keruak since 2018. Our work will help us to learn more about how wildlife colonises the reforested oil palm areas, how valuable

these corridors are for biodiversity, and what the optimum design for

a corridor is. We also want to find out the best techniques for monitoring wildlife in an oil palm context. Some of our colleagues work mainly with "umbrella species" like elephants and orangutans – but it's also important to look underneath the umbrella, to understand the health of the whole ecosystem!

"Monitoring the Keruak Corridor is a real team effort", says Amanda.

## Can you share any findings that indicate the Keruak project is progressing well?

A number of species, including pangolins and orangutans – both Critically Endangered – have been seen on camera traps using the reforestation site. Species like the Sambar Deer and Banded Palm Civet are recorded here more regularly, which may show their easy adaptation to dynamic change and their larger roaming range.

We've also recorded frogs across all sites. Frogs are delicate wildlife; they require ideal conditions to breed and are very sensitive to changes in their environment, which makes them good indicators of ecosystem health. The presence of frogs, especially forest-dependent species in the reforestation site, may show that the site is becoming more habitable.

## What has been the highlight of your work so far?

Encountering the Hose's Pygmy Shrew, no question! Last year we found two individuals in our fall traps and one in a tarp trap, which are designed for catching small wildlife and other invertebrates. This was an unexpected finding at first, and we didn't know what species it was – we just knew it was tiny, less than 10cm in length! After referring to our guidebook, we discovered to our surprise that this species is the world's smallest mammal (excluding bats) – so you could say my biggest highlight is the smallest mammal! To our knowledge, this is the first ever Hose's Pygmy Shrew to be recorded in the Lower Kinabatangan.



The Hose's Pygmy Shrew weighs just 2 grams – less than a single 1 pence piece!



The Sabar Litter Skink was recorded alongside the shrew in HUTAN's monitoring traps.



Landing on a HUTAN researcher's guidebook, this unidentified frog was eager for the limelight!



This insect was identified as a type of Assassin Bug, a terrestrial ambush predator.





## THANK YOU!

Since World Land Trust and HUTAN first started working together in 2008, our supporters have transformed the outlook for the rainforests of Kinabatangan and their orangutans. Your magnificent response to our 2021 appeal has again given HUTAN the tools to strengthen and connect surviving habitats, while they continue their work to engage local communities and restore missing links in the surviving forest. We hope to have more news for you soon on the expansion of Keruak, but in the meantime are delighted to celebrate HUTAN's success at Pangli.

You remain key to HUTAN's conservation efforts. Thank you for protecting the future of Keruak's orangutan family, together with that of the Critically Endangered Sunda Pangolin, of the Bornean Elephants, the hornbills and all other species threatened by deforestation. With your support, the Lower Kinabatangan Floodplain can remain a functioning wild landscape, and the orangutans can live in peace.

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