

The world's tallest known tropical tree has been found and climbed

A giant tree more than 330 feet tall was identified in Borneo from the air, and then climbed with a tape measure, at considerable risk.

In the last few years exceptionally tall yellow meranti trees (*Shorea faguettiana*) have been discovered growing in Sabah, a Malaysian state on the island of Borneo, again and again. The record height of an individual jumped from 288 feet (88 meters) to 308.7 feet (94.1 meters) in 2016, when an entire grove of 90-meter (295-foot) plus yellow meranti were found. That record has been further eclipsed this week as a team led by the Universities of Nottingham and Oxford, working with the South East Asia Rainforest Research Partnership, announced the discovery of a 330.7-foot (100.8-meter) giant growing in Sabah's forests (the scientific study on the find is being published in bioRxiv this week, and is in review in a scientific journal).

This discovery is the first 100-meter tropical tree (and the world's tallest known flowering plant) recorded anywhere in the world. If it were laid along the ground the tree would be longer than a soccer field. The team named the tree "Menara," which is Malaysian for tower. They estimated it weighs 81,500 kilograms, or more than the maximum takeoff weight of a Boeing 737-800, excluding roots.

It's possible an even taller tree is still waiting to be found in the region, the team notes.

These rainforest giants have been found growing in the Danum Valley Conservation Area, at the center of one of the best protected, and least disturbed, tracts of lowland rainforest left in South East Asia. Danum protects Borneo's iconic and endangered orangutan, clouded leopard, and forest elephants. Danum is also, it turns out, providing refuge for the tallest known tropical trees in the world.

The record-breaking trees are all, so far, of the same species—yellow meranti. It is highly endangered, and IUCN red listed, having been harvested relentlessly for decades. While Sabah's primary rainforest is under protection, yellow meranti felling still goes on elsewhere in Borneo—often to make molds for pouring concrete and cheap plywood. These incredible trees, each its own mini biodiversity hotspot hosting up to 1,000 insect, fungi and other plant species, can be reduced to planks in a sawmill in a few minutes.

These exceptionally tall trees were spotted by laser scanning the forest from an airplane in 2018. Three dimensional images are built up of the forest canopy, and slowly the giants pop out of the image. However, when laser scanning reveals an exceptionally tall tree, proof of its actual height is gathered in a remarkably low-tech way; someone climbs up the tree with a tape measure.

The job of climbing the tropics' tallest trees with a tape measure falls to Unding Jami, an arborist and research assistant with the South East Asia Rainforest Research Partnership. Tree climbing is risky and difficult, and it requires a calm mind and a high level of fitness. The Danum Valley team hone such skills by working in primary rainforest every day and playing ferociously competitive games of badminton and soccer in their downtime—in steamy temperatures and high humidity.

On January 6th, 2019 Unding Jami climbed what would eventually be announced as the tallest tree in the tropics and probably one of the tallest trees left standing in the world. (The tallest known trees are California redwoods, which have been measured up to 379.7 feet, or 115.7 meters.) I interviewed Unding twice, first as he and his team had received news of the new

contender and were planning their expedition to measure its height, and again after the successful climb in January.

Source: <https://www.nationalgeographic.com/environment/2019/04/worlds-tallest-tropical-tree-discovered-climbed-borneo/>