

Mabi Forest

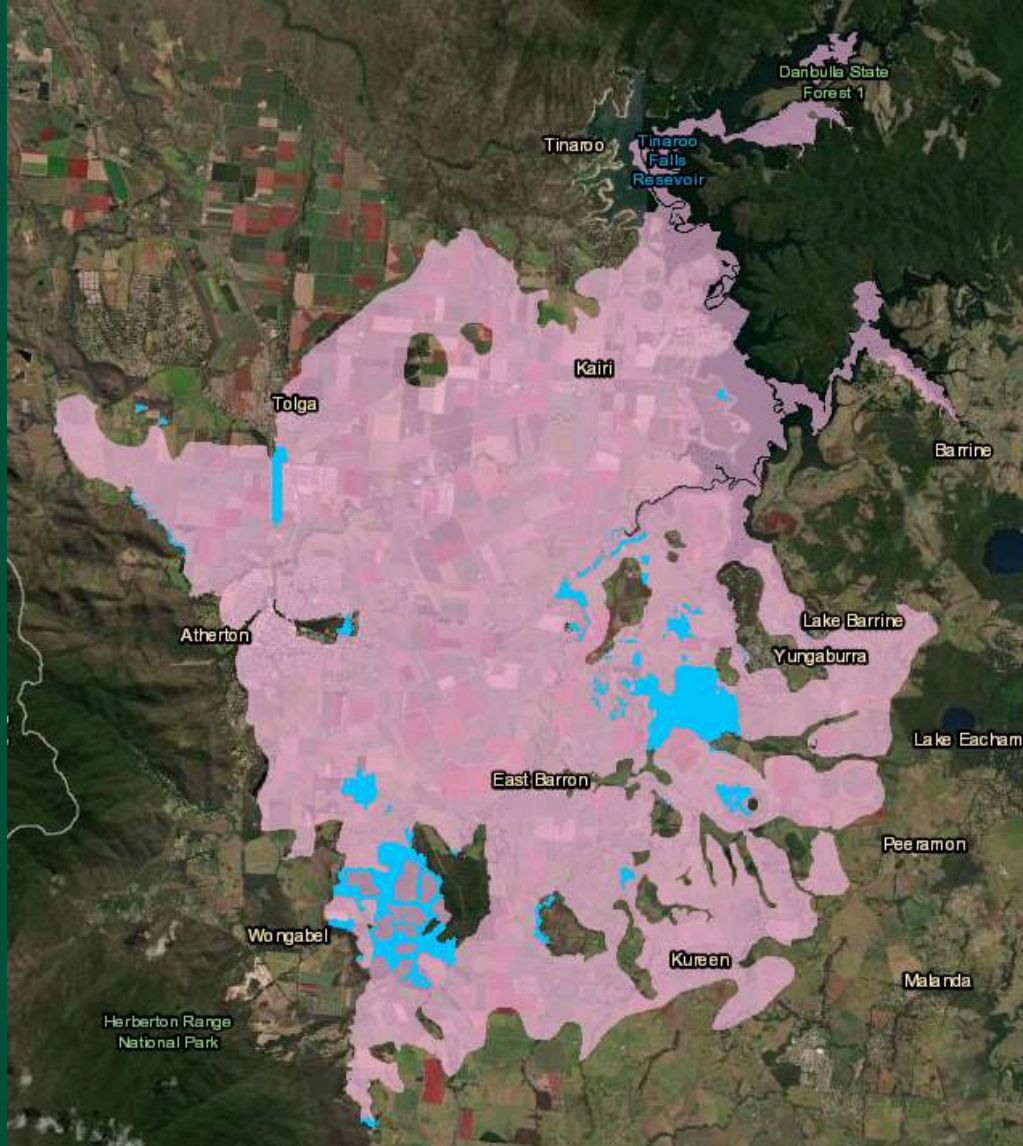


TERRAIN
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Australian Government





Mabi Forest occurs on the Atherton Tablelands in Far North Queensland. It has been extensively cleared since European settlement. This map shows the original extent of Mabi Forest (pink) and the current extent (blue).

Many remnants are on private property. Financial incentives and support are available to landholders to protect and restore Mabi Forest on their land.

Mabi Forest is part of the forests of Eastern Australia - a recognised global biodiversity hotspot.

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We acknowledge the traditional custodians of land and sea on which we live and work, and pay our respects to elders past, present and future

What is Mabi Forest?

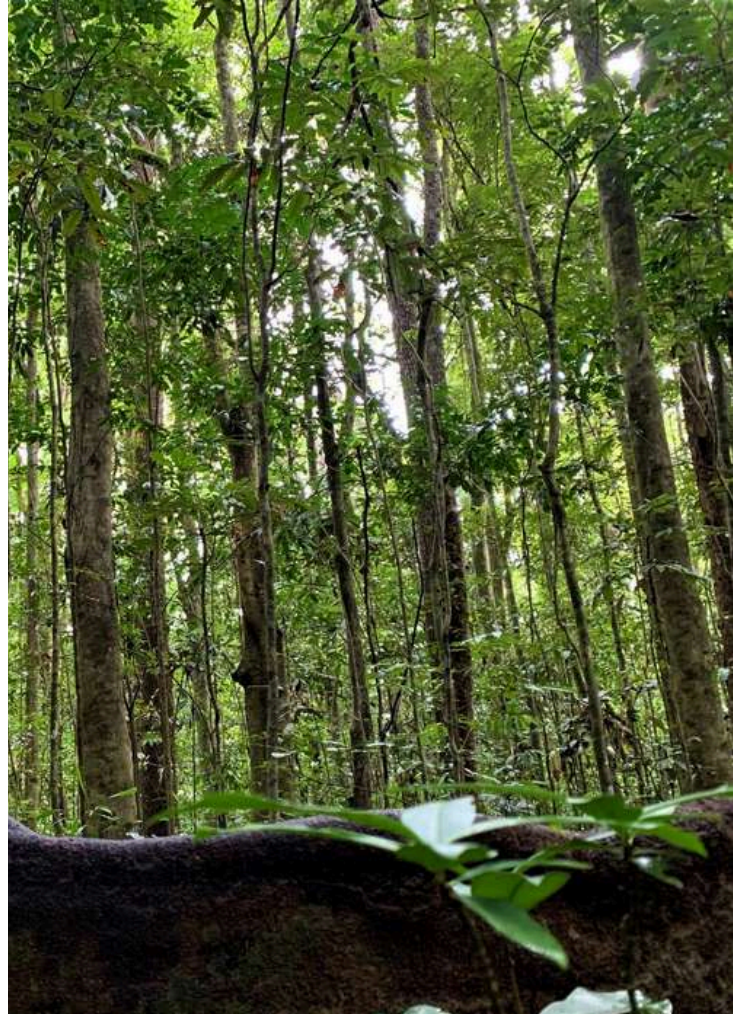
Mabi Forest, also known as Complex Notophyll Vine Forest 5b, is a critically endangered forest type only found in the Atherton region.

It is found in small patches between Atherton, Kairi, Yungaburra and Malanda.

Mabi Forest is a semi-evergreen forest that occurs on fertile basalt soils in moist upland areas where the rainfall is between 1300mm and 1600mm.

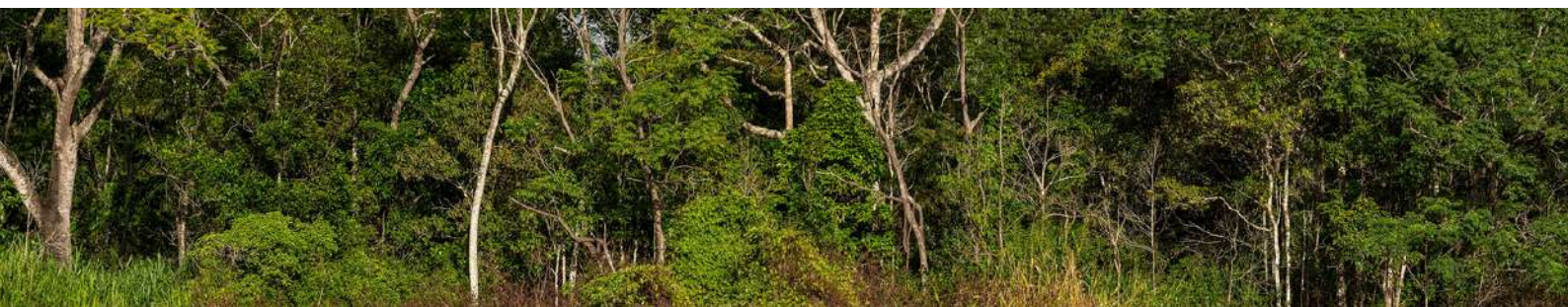
It was originally classified in the 1960s by ecologists Len Webb and Geoff Tracey. Structural characteristics include:

- Many buttressed canopy trees (25 to 45 metres) with an uneven canopy.
- A dense shrub and vine layer (1 to 3 metres high). Woody vines are common and visible.
- Scattered deciduous and semi-evergreen trees with heavy leaf fall in times of moisture stress.
- Tree trunks are highly variable in diameter.
- Epiphytes are rare but where they do occur they are in the upper branches of the canopy.



Mabi Forest has been listed as a critically endangered ecological community under the Australian Government's EPBC Act 1999.

This listing is due to the high proportion cleared in the past and its currently restricted distribution and vulnerability to ongoing threats.



Why is Mabi threatened?

Of the estimated original 19,000 hectares, only about 900 hectares remain, mainly in small isolated fragments.

Mabi Forest has been extensively cleared since European settlement. The largest remaining remnant fragments are located at Curtain Fig National Park, Wongabel State Forest, Hallorans Hill Conservation Park, Picnic Crossing and Tolga Scrub Reserves. There are smaller remnant patches (under 5 hectares) on private agricultural land.

Historically Mabi Forest was prized for its timber - Red Cedar, Black bean, Northern Silver Ash, White Beech and Kauri Pine.

Following the removal of quality timbers, Mabi Forest land was cleared for grazing, maize, potato and peanut farming.

Only 4% of the original forest remains, with 42% of it in small, isolated fragments on private land.



The effects of fragmentation and isolation make the ecosystem vulnerable. They restrict seed dispersal and pollination by birds and mammals

Mabi Forest is also impacted by feral and domestic animals and weeds, including garden escapees such as Turbina and Madeira vines, Japanese Sunflower and Anzac Weed. These weeds choke forest patches.

With so much of the original forest not protected, and with its inhabitants gone, the genetic viability of some species and their ability to resist extinction is in doubt.



Fauna

Mabi Forest is home to a high diversity of fauna:

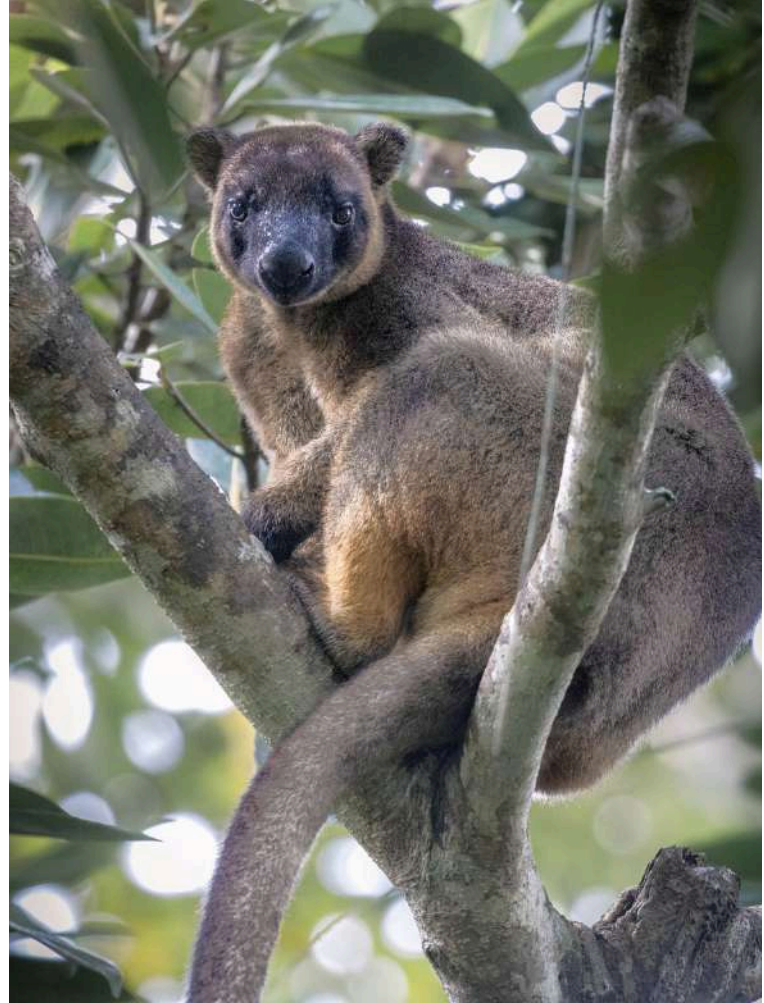
- 10+ frogs
 - 126 birds
 - 22 reptiles
 - 27 mammals
-

The high species count is partly because there is also a high diversity of plants in Mabi Forest. It's a structurally complex ecological community - which provides a range of sites for hunting and foraging, nesting, roosting and sheltering.

Mabi Forest includes both resident fauna and species that migrate between patches of forest and the wider landscape. They all play important roles in the ecological community - from pollination, seed dispersal and herbivory to predation and decomposition and soil/litter turnover.

Rare or threatened Mabi Forest mammals include the Large-eared Horseshoe Bat, the Diadem Leaf-nosed Bat and the Green Ringtail Possum. The Musky Rat-kangaroo no longer occurs within Mabi Forest.

It is essential for the long-term survival of this highly productive forest type that we maintain and enhance existing Mabi Forest, and re-establish connectivity between the remaining patches and the wider landscape.



Lumholtz's Tree-kangaroo is one of the largest mammals in Mabi Forest.

It is a culturally significant species. Ngadjon people's name for the Tree Climbing Kangaroo is Mapie. Yidinji people's name is Mabi.

The Yidinji and Ngadjon peoples both hold cultural knowledge of this tree-climbing marsupial. This shared connection highlights the importance of the species across their Country.

The Atherton Tableland community adopted the name Mabi Forest because tree kangaroos are common in this forest type.

Mapie/Mabi mostly eats leaves, and is restricted to rainforests and adjacent wet sclerophyll (eucalyptus) forest.

The Atherton Tableland has the right climate for Lumholtz's Tree-kangaroos, and a relatively high nutritional value in plant foliage in the forests growing on these very fertile soils.

Birds

Mabi Forest has a rich diversity of birds, with at least 126 species including 12 of the 13 bird species that are only found in the Wet Tropics. These include the Boobook, Tooth-billed Bowerbird, Victoria's Riflebird, the Atherton Scrubwren, Chowchilla and Lesser Sooty Owl.

Birds play key roles in seed dispersal and pollination, as do the Spectacled and Little Red Flying-foxes which also use Mabi Forest.

Fragmentation has significantly reduced biodiversity within Mabi Forest. The Southern Cassowary occasionally visits but is no longer a resident species.



Reptiles

A variety of reptiles and amphibians have been recorded in Mabi Forests, including the Boyd's Forest Dragon and Chameleon Gecko. This species is also restricted to the Wet Tropics. Other reptiles include 2 geckos, 8 skinks and 5 snake species.



Spectacled Flying-fox

Mabi Forest is a key habitat for the endangered Spectacled Flying-fox, a bat species that plays a critical role in our local rainforest ecosystems as a pollinator and seed disperser. The Spectacled Flying-fox enjoys the nectar from the black bean trees, the fruits of the Damson, White Cedar and figs, all of which are abundant in Mabi forest



Flora

Over 550 species of plants are found in Mabi Forest.

Key canopy species include Candlenut, Black Bean, White Cedar and Red Cedar.

Large strangler figs are a noticeable characteristic.

Key sub-canopy species include Lemon Aspen and Corduroy Tamarind.

Mabi forest is largely distinguished from other rainforest types by having a dense shrub layer resulting from the forest canopy being semi-deciduous.

Tree species such as Eumundi quandong, Queensland maple and lacebark tree shed their leaves during the dry season, allowing more light to reach the forest floor.

Sunlight benefits understory plants such as Atherton turkey bush, Artherton sauropus, dwarf phaleria and crotons.

Other understory plants include vines, ferns, herbs and juveniles of canopy species.

Widespread clearing of Mabi Forest has resulted in two plant species - iron malletwood and arrowhead vine- being listed as 'endangered'.

Five plants are listed as 'vulnerable' - Alloxylon flammeum, lacewood, Atherton sauropus, milk vine and Gray's milk vine.



Cultural significance

Mabi Forest occurs within the traditional lands of Aboriginal peoples who have cared for and maintained this Country for countless generations.

The Traditional Owners of the Atherton Tablelands region where Mabi occurs — including the Ngadjon-jii and Tableland Yidinji peoples — hold deep cultural, spiritual, and historical connections to the Mabi Forest and its unique ecosystems. These enduring connections continue today, guiding efforts to protect and manage this significant landscape in partnership with local communities.

The surrounding landscape has been cared for by First Nations peoples for tens of thousands of years, with cultural narratives describing the creation of the area's landforms and ecosystems.

Mabi Forest has long provided resources for food, tools, and ceremony — including detoxified fruits like Black Bean and Hairy Walnut, and materials for crafting spears, clap sticks, rafts, bark blankets and much more.

We acknowledge the ongoing custodianship and cultural knowledge of Aboriginal peoples connected to Mabi Forest and their continuing role in caring for Country.



Threats

- Invasive weeds, especially Turbina, Madeira vines and Cats Claw.
- Fragmentation: Lack of connectivity between small pockets of remnant Mabi Forest, leading to a loss of seed dispersal by animals like the Musky Rat-kangaroo and Cassowary.
- Fungal disease: Myrtle Rust.
- Feral animals, especially pigs but also rabbits, dogs, cats and cane toads.
- Cyclones: Fragmented forest, abrupt boundaries and lots of forest edges make Mabi Forest vulnerable. And fallen trees create gaps in the forest that allow weeds to colonise.
- Inappropriate grazing can damage forest edges, trample natural regeneration and encourage weeds. Wildlife-friendly fencing can protect Mabi forest patches from grazing.
- Inappropriate fire, especially poorly controlled fires that escape, kills Mabi Forest trees and encourage weeds. Mabi Forest needs protection from even low-intensity fire. Effective fireplanning by neighbouring landholders can reduce fire threats.
- Land clearing has drastically reduced and fragmented Mabi Forest, threatening its biodiversity, disrupting ecological processes, and making remaining patches vulnerable to weeds, fire and edge effects. Restoring connectivity between fragments and preventing further clearing are essential.



Turbina

Turbina is an invasive weed from Latin America that smothers and kills native rainforest vegetation if left unchecked. It has heart-shaped leaves and white tubular flowers. Contact your local Landcare group about the best control methods.



Madeira vine

Madeira Vine is also a highly invasive weed from South America that smothers rainforest vegetation and causes structural damage to trees. It is also toxic to cattle.

How you can help

If you live next to or near Mabi Forest, there are things you can do to help:

- Remove weedy species from your property.
- Don't dump garden waste at the edges of forest.
- Keep stock away from remnant Mabi Forest.
- Limit tracks through the forest.
- Consider placing any Mabi Forest on your property under a voluntary conservation agreement.
- Extend Mabi Forest on your property through restoration planting to help buffer and reconnect pockets of remnant forest. Talk to your local landcare group, e.g. Barron Catchment Care, TREAT or the Tree Kangaroo and Mammal Group.
- Financial incentives may be available to landholders restoring endangered forest types. Talk to Terrain NRM. Incentives include emerging biodiversity credit schemes, such as Cassowary Credits, which reward landholders for undertaking restoration activities. Go to www.cassowarycredits.com.au for more information.





For technical information on Mabi Forest,
see the Approved Conservation Advice for
Mabi Forest at:
<https://www.environment.gov.au/biodiversity/threatened/communities/pubs/30-conservation-advice.pdf>

Contact us

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