

Sensitive Vegetation in the Northern Territory

Monsoon Rainforest

Description of vegetation community

Monsoon rainforests are areas of vegetation with a dense tree canopy (greater than 70 per cent foliage cover), that occur in regions with a monsoonal wet/dry climate. In the Territory, monsoon rainforests commonly occur in small discrete patches. The distribution of monsoon rainforest ranges from Melville Island to Tennant Creek.

Across this range are two types of monsoon rainforest:

- Wet monsoon rainforest
- Dry monsoon rainforest

Wet monsoon rainforest

Wet monsoon rainforests are typically associated with areas of permanent moisture availability, such as permanent creeks and springs, and are dominated by evergreen trees and palms.

Typically they have a canopy height of up to 30 m, with a dense understorey of smaller trees, ground ferns and sedges. Vines are not particularly prominent in this rainforest type.

Examples of wet monsoon forest can be found at Berry Springs, Howard Springs, Holmes Jungle and Black Jungle.

Dry monsoon rainforest

Dry monsoon rainforests, also referred to as monsoon vine thickets, occur on sites where moisture is seasonally scarce.

These forests are shorter at 5–10 m and can be dominated by creeping vines and scramblers. These forests are, typically found on beach dunes and rock outcrops where extra moisture collects and fires aren't as prevalent.

An example of Dry monsoon forest can be found at Casuarina Coastal Reserve between the Dripstone Cliffs and Lee Point.



Black flying foxes eat the fruit in the rainforest

Why are monsoon rainforests significant?

The Territory has the largest area of monsoon forest in Australia (2 700 km²), yet it only covers 0.2 per cent of the Territory.

Although this is a small area, 13 per cent (604 species) of the known Territory flora occur in these rainforests, making them highly diverse and significant vegetation communities.

Incredibly, the total rainforest estate in the Territory is divided into 15 000 patches. Patch size ranges between 1 ha and 4 000 ha in area and have a median size of 3.6 ha.

Rainforests are naturally fragmented, but have persisted due to a small number of mobile fruit-eating birds (pied Imperial pigeon, rose crowned fruit-dove, figbird, yellow oriole, common koel and great bowerbird) and the black flying fox.

These frugivores, as they are called, are responsible for the movement of seed between isolated patches. The relationship is mutually beneficial because the frugivores are heavily dependant on the rainforest as the main source of fruit for their diet.



P. Clifton

Figbirds spread seeds between rainforest patches

Threats

Any further fragmentation of the rainforest estate from land clearing is a threat. As patches become more isolated, it will be less energy efficient for birds to move to them and therefore seed movement will decrease. Reduced seed movement will result in less regeneration and possibly to localised extinction. Reduction in the rainforest estate is a major threat to dependant frugivorous birds.

Another threat is regular or intense wildfires. These fires break the dense cover of foliage which helps to maintain the moisture balance and local environment for rainforest species.

Other threats include:

- Feral animals and introduced ants;
- weed invasion;
- agriculture;
- disturbances to rainforest aquifers; and
- introduction of fertilisers and pesticides.

What can we do to conserve rainforest patches?

- Ideally for conservation, development should be excluded from areas where rainforest patches are present.
- Investigate establishing conservation agreements on areas of private land containing patches of rainforest.

You can make a difference by:

- Managing rainforests to reduce the impacts of fire, feral animals and weeds.
- Maintaining any Banyan (*Ficus virens*) trees outside of rainforest patches. This tree is one of the best sources of fruit and often occurs as isolated trees in woodland habitats.
- Retaining all rainforest patches.
- Retaining an area around the rainforest patch to protect its water supply (i.e. retain a buffer of native vegetation up to 500 m wide).
- Retaining sufficient native vegetation within a surrounding 10km radius to provide pollen for frugivores over the Dry season.

References and Further Reading

Land Clearing Guidelines

nt.gov.au/property/land-clearing/apply-to-clear-freehold-land

Sites of Conservation Significance

nt.gov.au/environment/environment-data-maps/important-biodiversity-conservation-sites/conservation-significance-list

Threatened Species

denr.nt.gov.au/about/flora-and-fauna-division

Northern Territory Planning Scheme

nt.gov.au/property/building-and-development/northern-territory-planning-scheme

Other Fact Sheets in this series

Mangrove Forest

Sandsheet Heath

Old-Growth Forest

Riparian Vegetation

Further Information

Department of Environment and Natural Resources

Rangelands Division

Ph. 08 8999 3631

nt.gov.au/environment/soil-land-vegetation/native-vegetation

Flora and Fauna Division

Ph: 08 8995 5000

denr.nt.gov.au/about/flora-and-fauna-division

Land clearing and fires are threats to rainforest patches

