

Forest types

Dorrigo National Park



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FACT SHEET 15

FOREST

Consists of trees whose leaves form a canopy and whose trunks are longer than the depths of the crowns above.

CLOSED FOREST OR RAINFOREST

- Dense canopy of 70-100 per cent foliage cover by the tallest layer of trees
- Often thin and large leaves
- Up to three layers
- Vines and epiphytes present
- Several shrub layers
- Ground layer of ferns and perennial herbs
- Very rarely burnt

OPEN OR SCLEROPHYLL FOREST

- More open canopy of 30-70 per cent foliage cover by tallest layer of trees
- Thick, narrow leathery leaves
- Usually only one tree layer
- Vines and epiphytes rare
- Single shrub layer
- Ground layer of tough ferns, herbs, grasses

SUBTROPICAL RAINFOREST

- Most complex
- Leaves 8-12cm, often compound, rarely toothed
- Three tree layers up to 45m
- Thick vines
- Large epiphytes often hiding trunks
- Buttresses conspicuous
- Occasional stem flowers
- Many species, mostly Gondwanan origin
- Occurs on more fertile soils, eg. black scrub

WARM TEMPERATE RAINFOREST

- Leaves smaller, some under 8cm. Mostly not compound. Toothed.
- Two tree layers up to 35m
- Wiry vines more common than thick
- Large epiphytes occasional, not hiding trunks
- Trunks encrusted with lichens
- Buttresses rare
- Stem flowers absent
- Several species very common, mostly Gondwanan origin
- Occurs on poorer soils, eg. never never

COOL TEMPERATE RAINFOREST

- Leaves small, mostly under 8cm mostly not compound. Toothed.
- One to two tree layers up to 25m
- Thick vines rare or absent
- Beech orchid only large epiphyte
- Trunks hidden by moss or lichen
- Buttresses, stem flowers absent
- Antarctic beech predominates
- Occurs in cool, moist sheltered gullies or on fog-prone escarpment

REASONS FOR DIFFERENT FOREST TYPES

Forests need abundant sunlight and precipitation. The more fertile the soil the more plant life.

Warm temperatures favour plant growth. In cooler conditions fewer plants can cope.

Variations in precipitation, humidity, soil fertility, soil moisture and temperatures cause changes in rainforest plants and forest structure.

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FACT SHEET 15 (CONTINUED)

FOREST

CLOSED FOREST OR RAINFOREST



OPEN OR SCLEROPHYLL FOREST



Indicator species:
tallowwood
and
blackbutt



SUBTROPICAL RAINFOREST



Indicator species: black apple, stinging tree, yellow carabeen, black booyong, strangler fig



WARM TEMPERATE RAINFOREST



Indicator species: coachwood; crabapple



COOL TEMPERATE RAINFOREST



Indicator species: Antarctic beech



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FACT SHEET 15 (CONTINUED)

Geographical information

Dorrigo National Park straddles the eastern parts of the Dorrigo Plateau including the upper catchments of the Rosewood River, Never Never River and Wild Cattle Creeks, and the section of the Great Escarpment representing the northern watershed of the Bellinger River. Roughly elliptical in shape it has an area of 11,732 hectares and is situated 4km south south-east of Dorrigo, 25km north-west of Bellingen and 32km west of the coast.

Dorrigo Rainforest Centre: Lat: 300 22', Long: 1520 44'

Dorrigo National Park: Lat: 300 18' - 300 25', Long: 1520 44' - 1520 55'

Altitude: maximum 1042m at Mt Moombil; minimum 50m at Rosewood River.

Climate and weather

Generally speaking the climate on the Dorrigo Plateau in summer is warm and wet, autumn is cool and wet, winter is cold and dry and spring is cool and dry.

Rainfall average is around 2000mm, with occasional extreme rainfall events such as 1100mm in 5 days during March 2001.

Geological features

The major landscape feature is the Great Escarpment, which began to form around 70 million years ago with the rifting of Tasmantis (New Zealand, New Caledonia, Lord Howe Island, etc.) from the remaining Gondwanan landmass, with resultant uplift of the Australian/Antarctic East Coast.

Basalt underlying parts of the park is a remnant of the 19 million year old Ebor Volcano. It has weathered to form a clay loam (red kraznozom) soil which is relatively fertile by Australian standards and has a high water-holding capacity, supporting well-developed Cool Subtropical Rainforest on the plateau and upper escarpment. Elsewhere in Dorrigo National Park soils are mostly yellow podzolics derived from metamorphosed sedimentary rocks such as argillite, phyllite and slate.

INFLUENCE OF EXPOSURE AND ROCK TYPE ON LOCATION OF RAINFOREST

