

Wet and Damp Forests

Wet and damp forests are largely confined to protected areas in gullies, riparian zones, and southern slopes of hills in Nillumbik.

They are characterised by a canopy of eucalypts up to 40m tall over a medium to tall dense shrub layer, with a ground layer of herbs, grasses and sedges. The ground layer also features a variety of moisture-loving ferns, including the occasional tree ferns. The ground layer also features fallen leaves, branches and rotting logs. Wet and damp forests and woodlands include the rich variety of indigenous flora and fauna that they provide habitat for.

Why wet and damp forests are important

Wet and damp forests provide cool, moist refuges in the forested areas of Nillumbik. Together with the dry forests and woodlands, they occur on both public and private land and connect Kinglake National Park to the Yarra River and Warrandyte State Park.

This landscape 'connectivity' is vital to maintaining a healthy environment, keeping the natural systems operating well and providing pathways for animals in an otherwise fragmented landscape.

Wet and damp forests provide essential habitat for a wide variety of native animals and plants, including rare and threatened species. In a warming climate it is expected that the wet and damp forests will function as a critical refuge for many species that will no longer be able to persist within the drier areas.

Wet and damp forests play an essential role in providing clean water to our waterways, contribute to soil health and improve air quality.



The approximate area of wet and damp forest in Nillumbik is 7,200 ha of which about 4,900 ha is on private land.



What healthy wet and damp forests look like

Healthy wet and damp forests have trees of different ages, including big old trees with numerous, and sometimes large, hollows. Fallen branches and rotting logs create feeding places and shelter for a rich diversity of invertebrates, native birds and animals. The shrub layer can be dense and features wattles, daisy bushes, bursaria, and currant bush.

The forest floor is typically dense with a diversity of grasses, sedges and ferns, and has few or no weeds. Leaf litter is thick on the ground and provides rich habitat for invertebrates and foraging areas for ground-dwelling animals. The cool, damp conditions also support a rich array of mosses and fungi.

A variety of animals may be found. Rare species include the Superb Lyrebird, Powerful Owl, Eastern Whipbird, Long-nosed Bandicoot and White-footed Dunnart. More common species include the Common Wombat, Southern Bush Rat, Agile Antechinus, Swamp Wallaby, Sacred Kingfisher and King Parrot. A variety of frog species live in these forests.

Wet and damp forests are usually adjacent to the dry forests and woodlands. Healthy wet and damp forests are large in extent and well connected with surrounding native vegetation and waterways, facilitating the movement of plants and animals across the landscape.

The threats to our wet and damp forests

Lack of knowledge, skills and resources

Land owners are often keen to care for their land but may not have enough knowledge to feel confident in doing so, or they lack resources such as time or money to tackle major works.

Incremental land clearing and disturbance

The total area and quality of dry forests and woodlands is gradually declining as a result of legal and illegal clearing and damage to the understorey. This can reduce the forest's connectivity and increase isolation of plant and animal populations. It also exposes the soil to compaction and erosion, enabling weed invasion. Excessive removal of dead trees and logs for firewood removes important habitat.

Invasion by woody weeds

Woody weeds such as Sweet Pittosporum, Bluebell Creeper, Boneseed, Blackberry and Cootamundra Wattle invade and dominate the mid-storey, altering the habitat structure and shading out the native understorey.

Invasion by grassy and herbaceous weeds

Introduced grasses and weedy herbs and bulbs can out-compete native species. They reduce the diversity of species on the forest floor and negatively impact habitat for ground-dwelling animals and birds.

What we can do to keep them healthy

Invasion by grassy and herbaceous weeds

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Prevent further clearing and restore connectivity

- Increase community understanding of the consequences of clearing and damaging native vegetation.
- Use regulatory tools such as planning controls and perpetual covenants to prevent further loss and degradation of forests and woodlands.
- Use natural regeneration and re-vegetation to restore habitat along key corridor routes.
- Encourage the responsible sourcing of firewood or use of alternative fuels.

Minimise the impact of woody weeds

- Focus control efforts for woody weeds in the highest quality areas of wet and damp forest.
- Prioritise other areas as resources allow.
- Develop and utilise regulatory tools (local laws) and incentives to support weed control efforts by the community.

Minimise the impact of grassy and herbaceous weeds

- Focus control efforts on patches of high value understorey such as orchid-rich areas or critical habitat for ground-dwelling fauna.
- Trial ecological and traditional burning to restore the health of the understorey.

The threats to our wet and damp forests

Shortage of tree hollows for animals that need them

Past tree harvesting has reduced the number of hollow-bearing trees. Many remaining trees are less than 80 years old and too young to produce hollows, with many of the existing old hollow-bearing trees occurring along roadsides where they risk removal from road widening and maintenance work.

Damage by pest animals

Introduced Sambar deer graze heavily on native vegetation especially shrubs, and cause significant damage to trees by rubbing on them. They damage soil and creek lines by trampling and creating wallows. Deer trampling on breeding sites are a significant threat to the rare Southern Toadlet. Wallabies and rabbits are also over-abundant and browse heavily on native shrubs and orchids.

Predation by foxes and cats

Foxes and cats prey on small native animals, particularly those that spend a lot of time on the ground.

What we can do to keep them healthy

Protect and supplement tree hollows

- Protect large hollow-bearing trees including on roadsides.
- Establish methods to assess the availability of tree hollows and the numbers needed by hollow-dependent species.
- Supplement natural hollows with nest boxes designed for rare and threatened species.
- Trial methods for accelerating development of tree hollows.

Minimise the impact of pest animals

- Take a collaborative approach across public and private land for the management of pest animals such as deer and rabbits.
- Use exclusion fencing to protect significant or sensitive sites such as Southern Toadlet breeding sites and where wattles, heaths, native peas and orchids are found.

Reduce predation pressure from foxes and cats

- Target fox control programs to breeding and dispersal times for rare animals and ground-dwelling birds.
- Increase community understanding of the threats cats pose to native animals, and provide training in the use of cat traps.