

# Regenerating Wet-sclerophyll Forest

## Macleay Landscape Recovery Workshops



Wet-sclerophyll forests are found in protected creek lines, gullies, slopes, and other moist locations across eastern Australia. They are recognised by an emergent canopy of Eucalypts with a dense understorey of mixed sclerophyll (hard-leaved) and rainforest trees and shrubs. This mix of plant species, and the habitat structure it provides, supports a rich diversity of wildlife.

### Characteristics of dry and wet sclerophyll forests



Dry Sclerophyll Forest (QLD Government)



Wet Sclerophyll Forest (Wet Tropics Management Authority)

Open forest Dry sclerophyll forest	Closed forest Wet sclerophyll forest
<ul style="list-style-type: none"> <li>• Open canopy of Eucalypts.</li> <li>• Sparse middle canopy layer.</li> <li>• Thick grassy understorey.</li> <li>• Recruitment from seed bank present in the soil.</li> </ul>	<ul style="list-style-type: none"> <li>• Open canopy of emergent Eucalypts.</li> <li>• Closed middle canopy of rainforest species.</li> <li>• Sparse understorey with high amounts of leaf litter.</li> </ul>
<ul style="list-style-type: none"> <li>• Highly flammable</li> </ul>	<ul style="list-style-type: none"> <li>• Flammable under dry conditions.</li> </ul>
<p>Gradient: Increasing rainfall, soil fertility, and protection from fire.</p>	

### Regeneration pathways following fire

Fire is a natural part of sclerophyll plant communities and important for their regeneration. Dry sclerophyll forest can tolerate frequent fires (every 10-20 years), whereas wet sclerophyll forest requires a longer period between fire events to recover (50+ years).

Initial regrowth will be from root stock or existing plants that have survived the fire.

Seed germination following rain will include light-dependent species such as Eucalypts, Wattles, She-oaks, and grasses. Pioneer native rainforest shrubs such as Native Peach, Kangaroo Apple, Brush Kurrajong, and Native Rosella or Hibiscus are also common, as well as native vines such as Native Cucumber, and Native Grape.

Weed germination is dominated by annual herbs such as Fleabane, Inkweed, and Blackberry Nightshade, and grasses. Perennial weeds like Wild Tobacco, and Lantana may also reshoot.



Mixed native and weed regeneration (Andy Vinter).

## Bush regeneration strategies

### The territorial war

Create and expand weed-free areas to regenerate native species and limit weed spread.

- Removing light weed infestations takes less time and increases the regeneration of native species over a larger area.
- Weeds are contained into a smaller core-infestations that can reduce their rate of spread.
- Always follow-up previously treated areas until all weeds are controlled before moving into new areas.



Photo: Australian Association of Bush Regenerators.

### Target weeding

The targeting of weeds that will persist for many years, block the regeneration of native species, cause significant environmental harm, or where control is mandated by law.

- Vine weeds such as Madeira Vine, Cats Claw Creeper, Balloon Vine, or Morning Glory.
- Grassy weeds such as Broad-leaved Paspalum and Setaria.
- New weed invaders that have not yet established.
- Declared weeds like Tropical Soda Apple



Photo: Australian Association of Bush Regenerators

### Managing growth on forest edges

Weeds often flourish along forest edges due to increased light levels.

- Retain vegetation on the edge to limit light penetration and reduce weed growth within the forest.
- Remove weeds within the forest leaving the edge weeds till last.
- Undertake supplementary planting to grow over the forest edge.
- Forest edges provide a valuable ecological niche for wildlife.



Photo: Andy Vinter Macleay Landcare Network.

### Supplementary planting

The planting of seedlings can be used to:

- Fill-in gaps between protective fencing and the existing forest edge.
- Introduce locally occurring species that are not currently present or regenerating on-site eg mature phase species.
- Provide additional types of food and habitat for wildlife such as blossom, seeds, and fruits.



Photo: Andy Vinter Macleay Landcare Network.