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# Eucalypt bush

**Grassy/heathy woodland and forest**

**Heathy woodland and forest**

**Shrubby forest**

**Wet forest**

# About this kit

This kit discusses a number of bush types associated with eucalypt woodland and forest and gives specific guidelines for managing them. However, as with all the recommendations in the **Tasmanian Bushcare Toolkit**, the guidelines are not meant to be followed rigidly. Rather, they are intended to give you some principles for managing each bush type. You can then modify the guidelines to suit your particular situation and needs.

All four bush types discussed in this kit have a canopy of eucalypt trees. However, each of them has a characteristic understorey with its own typical appearance and mix of plant species. The characteristics of the different understories are described in the introductions to the bush types. Eucalypt bush with a grassy understorey is discussed in **Kit 7 Grassy bush**.

The bush types covered are:

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| Grassy/heathy woodland and forest |
| Heathy woodland and forest |
| Shrubby forest |
| Wet forest. |

Each section in this kit discusses one bush type. This includes:

- A description of the bush type and where it tends to be found.
- Public places where you can see good examples of the bush type.
- The significance of the bush type in terms of conservation and biodiversity, and some of the threatened species that may be found in it.
- The management issues relevant to the particular bush type. The management guidelines included are those that are specific to the bush type in question. Where no specific guidelines are given use the general principles outlined in **Kit 2 Managing Your Bush.**

When you have read the specific guidelines for your bush type you will probably need to reread **Kit 2 Managing Your Bush**. This kit contains more detailed information on the principles and practices of managing remnant native vegetation. You may also need to refer to parts of the following kits for specific information on weeds, revegetation and threatened species:

- **Kit 3 Weeds in Your Bush**
- **Kit 4 Revegetating Your Farm**
- **Kit 5 Threatened Plant Species in Your Bush.**

# Looking after grassy/heathy woodland and forest

Grassy/heathy woodland and forest has an understorey in which small-leaved shrubs and grasses make up more than 30% of the cover in the layer that is less than 2 m tall. Typical shrubs include heaths (Epacridaceae family), acacias and legumes (Fabaceae family). Typical grasses include wallaby, plume, spear and tussock grasses. There may be a taller subsidiary layer in which wattles and she-oaks are prominent. However, this layer is sparser than the lower one. The canopy may be dominated by a range of eucalypts. The trees in woodland are spaced such that the gaps between their crowns are wider than the crowns. The crowns are closer together in forest. The terms woodland and forest are used interchangeably and the management guidelines apply to both.

The outstanding example of grassy/heathy forest is grassy/heathy black peppermint (*Eucalyptus amygdalina*) forest. This occurs on sandy soils derived from Tertiary laterite, which are known locally as buckshot or ironstone gravels. It is found in the northern Midlands and near Swansea on the east coast. Some areas of grassy/heathy woodland and forest also occur within black peppermint forest on dolerite, highland cabbage gum (*Eucalyptus pauciflora*) woodland and forest, and gum-topped stringybark (*Eucalyptus delegatensis*) forest.

## Good examples

Some of the best examples of grassy/heathy woodland and forest lie within the Tom Gibson Nature Reserve on Barton Road, Epping Forest. The majority of the reserve is grassy/heathy black peppermint forest. Good examples can also be seen at Diprose Lagoon Nature Reserve. The Tom Gibson Nature Reserve also contains grassy white gum woodland and forest, sedgey black gum forest, and cabbage gum open forest on sand. Be sure to visit the reserve in early spring to see the prolific wildflowers, especially the orchids.

## Biodiversity values

At least half of the original black peppermint forests in Tasmania have been cleared, largely for pasture. Considerable areas have been mined for gravel for roadworks. Grassy/heathy black peppermint forest contains threatened plants and is important habitat for the Tasmanian bettong. Grassy/heathy forests dominated by cabbage gum are poorly reserved. Grassy/heathy forests dominated by gum-topped stringybark are well reserved.

**EXTINCT OR THREATENED ANIMALS AND PLANTS OF GRASSY/HEATHY WOODLAND AND FOREST INCLUDE:**

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| Thylacine (*Thylacinus cynocephalus*) (extinct) |
| Blue pincushion or native cornflower (*Brunonia australis*) |
| Spreading stenanthemum (*Stenanthemum pimeleoides*) |
| Rubble peppercress (*Lepidium hyssopifolium*) |
| Lindleys spider orchid (*Caladenia lindleyana*) |
| Black-tipped spider orchid (*Caladenia anthracina*) |
| Midland greenhood (*Pterostylis commutata*) |

Refer to **Kit 5 Threatened Plant Species in Your Bush** for more information and an illustration of each plant.

# Management issues

Grassy/heathy woodland and forest is often marginal country for grazing in terms of its nutritional value. However, it is valuable country for shelter for lambing and off-shears. The carrying capacity is low. Many landowners use this type of bush only over the winter months. Light grazing by sheep does not appear to harm woodlands and forests with grassy/heathy understories. Remnants that are lightly grazed over the winter months and spelled during spring and summer are largely in good condition, with a diversity of native species and few weeds. However, some of the best remnants are those that have had stock excluded for more than 30 years. They have a greater diversity of species, a denser cover of grasses and wildflowers, and fewer weeds. Overgrazing can lead to the elimination of the shrub and ground layers. If your remnant is in excellent or good condition there is no reason to change its current management.

## Grazing

- Exclude stock if possible.
- Light grazing is preferable if the bush is to remain stocked. If bush with a grassy/heathy understorey is an important part of your grazing enterprise then grazing at low stocking rates is not damaging.
- If the area is grazed it should be grazed over winter, after the autumn break and before flowering of the native herbs and shrubs.
- Destock in spring and summer.
- If the autumn break has failed, consider destocking or lowering the stocking rate. It could be tempting or even necessary to graze the bush but this is the time when seedlings, especially those of trees, are most vulnerable.
- Do not graze soon after burning. Stocking too soon after fire will impede the regeneration of trees and understorey shrubs and herbs.
- If annual grasses and broad-leaf weeds are a problem, stocking heavily during early spring can help to reduce the growth and seed set of weeds.

## Fire

- Patch burn to favour target species. Fire should favour the persistence of rare and threatened plants and animals. In some cases the regimes needed by different species will conflict. For example, the fire frequency required to maintain the subterranean fungi that are the food source for bettongs may conflict with the fire regime required to maintain some plant species.
- Choose a fire regime to suit the desired outcome. For example, shrubs will become dominant with infrequent fires so if you want to reduce the shrub layer burn frequently enough to suppress the growth of shrubs.
- A diversity of fire regimes is preferable. The maintenance of biodiversity is best served by having a mix of fire ages and intensities across the landscape. This is partly because the needs of many plants and animals are not known and having a range of fire ages lessens the risk of long-term damage. If you have an area of bush that has not been burnt for many years it may be best to continue to avoid fire.
- Use fire to manage weed species. After a fire most native species resprout or regenerate from seed stored in the soil. Research on the germination of both native and introduced species has shown that weeds do not germinate after relatively hot fires, thereby allowing better regeneration of the native species. If many annual weeds such as shivery grass or brome grass are present, spring burning before they set seed, for at least two

years, may help to eliminate them by reducing their soil seedbanks. Fire can also be used to stimulate the germination of hard-coated weed seeds that persist in the soil, such as broom and gorse. This can then be followed by a chemical spraying program. A second burn 18-24 months later will germinate much of the remaining seed. The subsequent seedlings can be eliminated by follow-up chemical spraying.

- Use fire to stimulate the germination of trees and shrubs.
- Use fire in combination with herbicides to control woody weeds.

**WHEN AND HOW TO BURN**

- The timing of burns will vary according to circumstances. However, autumn burns are usually preferable as most plants and animals will have completed their life cycle. In autumn the vegetation is likely to be fairly dry giving a good burn while the humidity at night will help to control the fire.
- An interval of 8-20 years between fires is thought to be appropriate for grassy/heathy woodland and forest.
- Moderately hot burns are better than cool burns. Burns should be hot enough to at least remove all the ground litter. However, burns that are too hot will scorch the tree crowns and should be avoided.
- Burn small to medium patches, for example 1-5 ha.

**WHEN NOT TO BURN**

- Don't burn during spring and summer.
- Don't burn if there is a gorse problem, unless you are able to apply herbicide following the burn.
- Don't burn when large amounts of seed have germinated recently. Mass germination is relatively rare and could be important for the growth of a new generation of trees, shrubs and understorey species.

# Looking after heathy woodland and forest

Heathy woodland and forest has an understorey that is less than 2 m tall and dominated by small-leaved shrubs and/or bracken. Typical shrubs include acacias, heaths and legumes. The canopy may be dominated by a range of eucalypts. Most heathy black peppermint (*Eucalyptus amygdalina*) woodlands and forests and silver peppermint (*Eucalyptus tenuiramis*)-candlebark (*Eucalyptus rubida*) forests are classed as heathy woodland and forest. A number of other eucalypt woodland and forest types may also be classed as heathy woodland and forest, including Smithton peppermint (*Eucalyptus nitida*), Tasmanian ironbark (*Eucalyptus sieberi*), stringybark (*Eucalyptus obliqua*), white peppermint (*Eucalyptus pulchella*), white gum (*Eucalyptus viminalis*), and lowland cabbage gum (*Eucalyptus pauciflora*). The trees in woodland are spaced such that the gaps between their crowns are wider than the crowns. The crowns are closer together in forest. The terms woodland and forest are used interchangeably and the management guidelines apply to both. Heathy woodland and forest is usually associated with nutrient-poor sandy soils that form on sandstone, quartzite and sand sheets. However, heathy understories can also be found on shallow soils on dolerite where the rainfall is moderate to high.

Heathy woodland and forest grades into grassy woodland and forest at one end of its spectrum and shrubby forest at the other. Where these intergrades occur the forest type is often described as grassy/heathy woodland and forest and heathy/shrubby forest.

## Good examples

Heathy woodland and forest is most extensive in the north east and in the Furneaux Group of islands. It can be seen near the Pub With No Beer just south of Bothwell, Huntingfield just south of Hobart, Asbestos Range National Park, Rocky Cape National Park, Freycinet National Park and Mt William National Park.

## Biodiversity values

Heathy woodland and forest has been heavily cleared over the last 20 years and many of its vegetation communities are threatened. Heathy silver peppermint and heathy black peppermint forests are poorly reserved. Heathy candlebark forests are not protected in any state reserve. Only a few remnants of heathy cabbage gum woodland and forest survive.

**THREATENED PLANTS OF HEATHY WOODLAND AND FOREST INCLUDE:**

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| Guinea-flower bush pea (*Pultenaea hibbertioides*) |
| Thick-stem caladenia (*Caladenia campbellii*) |
| Grass tree (*Xanthorrhoea bracteata*) |
| Apsley heath (*Epacris apsleyensis*) |
| Creeping spyridium (*Spyridium obcordatum*) |
| Small-leaf spyridium (*Spyridium microphyllum*) |
| Lesser guinea-flower (*Hibbertia calycina*) |

Refer to **Kit 5 Threatened Plant Species in Your Bush** for more information and an illustration of each species.

# Management issues

The key management issues in heathy woodland and forest are:

- Degradation of the understorey over time as a result of fire or fire followed by grazing.
- Weed invasion in bush in good or poor condition. It is also something to watch for in bush in excellent condition in order to prevent future weed invasion and subsequent degradation. In particular, woody weeds such as gorse and broom are a serious problem in heathy woodland and forest.
- Rural tree decline is becoming widespread in heathy woodland and forest. Refer to **Kit 7 Grassy Bush** for more information.

If threatened species are present in your heathy woodland or forest you should consider their needs first. These needs may conflict with other aspects of management. Some threatened species are found in remnants that are in poor condition. This is because the past management regime has favoured their survival. If the management is changed these species may be lost.

## Grazing

There will be little economic return from grazing heathy bush. It has a low nutritional value, a low stock carrying capacity, and the soils have low fertility. Heathy bush can provide shelter for off-shears and some winter grazing, but excluding stock is the best option. However, light grazing by sheep does not appear to harm heathy bush.

## Fire

The recommended average interval between fires for heathy woodland and forest is 15-30 years. However, a range of fire intervals is best if biodiversity is to be maintained. Look at your patch of bush to determine the appropriate fire interval, keeping in mind the past fire regime. For example, too frequent fires will increase the risk of bracken dominating and increase soil erosion causing bare ground. Grazing too soon after fire will impede regeneration of the new plants. Keep stock out for at least five years after a fire if you are managing the area to maintain biodiversity or for tree regeneration.

## Weeds

Woody weeds such as gorse and broom are the most serious weeds in heathy woodland and forest. Refer to **Kit 3 Weeds in Your Bush** for details of weed control measures.

# Managing by condition

The best management regime for heathy woodland and forest will depend on the condition of the bush. Management guidelines based on the condition of the bush are given below. However, the specific needs of threatened plants may override these recommendations. If you are unsure what condition your bush is in refer to **Kit 1 Bush on Your Farm**.

## Excellent condition

Heathy woodland and forest in excellent condition is characterised by:

- A healthy and diverse shrub layer. This bush is a profusion of colour in spring and it may be rich in orchids.
- Low levels of weed invasion.

This bush is an asset. Maintain your current management. There is no need to change your management practices unless there is an obvious reason to do so. However, if there are signs of weed invasion an active weed control program, particularly for gorse and broom, may be needed to maintain the integrity of the bush.

## Good condition

Heathy woodland and forest in good condition is characterised by:

- A limited number of species. There may be only a few native shrub species and the wildflower component will have almost disappeared.
- Weed invasion. Gorse can be a major problem in heathy woodland and forest. Broom is invading heathy bush on mudstone in the Oatlands district.
- Extensive areas of bare soil and erosion.

Management will need to focus on reducing stock levels so that the bush can recover. Destocking may be the best option in some situations. This will also reduce the risk of soil erosion by restoring a perennial ground cover. You may decide to limit access to sensitive areas through strategic fencing. These include areas with highly palatable species and areas where soil erosion is a problem.

## Poor condition

Heathy woodland and forest in poor condition is characterised by:

- Little diversity in the ground cover.
- Extensive areas of bare ground.
- No regeneration of trees and shrubs.
- Severe weed problems, particularly gorse and broom.

Heathy woodland and forest in poor condition usually recovers well through natural regeneration. You will probably need to destock for a number of years to allow the bush to recover. Once stock are excluded the results can be dramatic. Small wildflowers and orchids appear in areas where they have never been seen before. Shrubs and small trees may need two good seasons in succession to become established.

Management should aim to maximise regeneration in areas with poor understories or areas affected by rural tree decline. Where natural regeneration does occur, it is important to exclude stock and fire from the area until the saplings are tall enough to survive. Dense bracken can act as a nursery for young trees and shrubs by protecting them from grazing.

Consider rehabilitation in bush that is severely degraded, particularly if there is extensive erosion.

# Looking after shrubby forest

The understorey of shrubby forest is dominated by small-leaved shrubs more than 2 m tall, such as tea-trees (*Leptospermum*) and wattles (*Acacia*). The canopy can be dominated by most types of eucalypt forest, including black gum (*Eucalyptus ovata*), white gum (*Eucalyptus viminalis*), black peppermint (*Eucalyptus amygdalina*), highland cabbage gum (*Eucalyptus pauciflora*), blue gum (*Eucalyptus globulus*), ironbark (*Eucalyptus sieberi*), stringybark (*Eucalyptus obliqua*), gum-topped stringybark (*Eucalyptus delegatensis*), snow gum (*Eucalyptus coccifera*), Smithton peppermint (*Eucalyptus nitida*), and white peppermint (*Eucalyptus pulchella*). Shrubby forest is usually found in moisture conditions that are intermediate between those of wet forest and either heathy forest or grassy woodland and forest.

## Good examples

Shrubby forest is common and widespread in Tasmania. A large proportion of the forest on the south-facing slopes of the foothills of Mt Wellington and much of the forest around Launceston is shrubby forest.

## Biodiversity values

Most types of shrubby forest are well reserved, and most have escaped significant clearing for agriculture and development. However, little remains of the shrubby forests dominated by black gum, and those dominated by blue gum have been heavily cleared. Blue gum forests are extremely important for the survival of the swift parrot, a species considered vulnerable to extinction. Much of the unreserved forest is used for timber production. Relatively little shrubby forest is used for stock grazing, and when used it is mainly for shelter. Shrubby forests are generally rich in Tasmanian endemic birds and marsupials. Shrubby forests that are particularly important for biodiversity survive in a few small remnants on lowland basalt in the north east and north west of the state.

**THREATENED ANIMALS OF SHRUBBY FORESTS INCLUDE:**

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| Wedge-tailed eagle (*Aquila audax fleayi*) |
| Swift parrot (*Lathamus discolor*) |
| Grey goshawk (*Accipiter novaehollandiae*) |
| Broad-toothed stag beetle (*Lissotes latidens*) |
| Blind velvet worm (*Tasmanipatus anopthalmus*) |
| Simsons stag beetle (*Hoplogonus simsoni*) |
| Mt Mangana stag beetle (*Lissotes menalcas*) |

**THREATENED PLANTS OF SHRUBBY FORESTS INCLUDE:**

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| Spicers everlasting (*Argentipallium spiceri*) |
| Midlands wattle (*Acacia axillaris*) |
| Golden bertya (*Bertya rosmarinifolia*) |
| Small-leaf pomaderris (*Pomaderris elachophylla*) |
| Round-leaf mint bush (*Prostanthera rotundifolia*) |
| Gristle fern (*Blechnum cartilagineum*) |
| Skirted tree fern (*Cyathea* X *marcescens*) |
| Scrambling ground fern (*Hypolepis distans*) |
| Small rasp fern (*Doodia caudata*) |

Refer to **Kit 5 Threatened Plant Species in Your Bush** for more information and an illustration of each species.

# Management issues

The best management regime for shrubby forests will depend on the condition of the bush. Refer to **Kit 1 Bush on Your Farm** for details on assessing the health of your bush.

The key management issues in shrubby forests are:

- Fire management. Inappropriate fire regimes can lead to the conversion of shrubby forest to other vegetation types. In some situations this may be seen as desirable (e.g. conversion to grassy forest which generally has a greater diversity of plant species than shrubby forest). However, a shrubby understorey has been shown to support a diversity of native birds.
- Weed invasion. This will be a problem in bush in good or poor condition. However, it is something to watch for in bush in excellent condition in order to prevent future weed invasion and subsequent degradation. In particular, woody weeds such as boneseed, cotoneaster, hawthorn, gorse and broom are a serious problem in shrubby forest.

If threatened species are present you should consider their needs. These needs may conflict with other aspects of management. Some threatened species are found in remnants that are in poor condition because the past management regime has favoured their survival. If the management regime is changed these species may be lost.

## Grazing

- There will be little economic return from grazing shrubby forest. Most of the vegetation is unpalatable and too tall for stock to reach.
- If the remnant is in good condition maintain your current management regime unless there is an obvious reason to do so.
- Shrubby bush can provide shelter for stock. Nevertheless, exclude stock if possible.
- Do not allow stock access to the bush soon after burning. Stocking too soon after fire will impede the regeneration of new plants.

## Fire

- Do not burn shrubby forest that is higher than 900 m above sea level.
- Patch burn to favour target species. The fire pattern should favour the persistence of threatened plant and animal species.
- Burn every 20-40 years. More frequent fires will often prevent a shrubby layer forming. Less frequent fires may convert the bush to wet forest.
- Moderately hot burns are better than cool burns. Burns should at least remove all the ground litter.
- Only burn gorse or broom if you are able to apply herbicide following the burn.

## Weeds

Woody weeds such as cotoneaster, hawthorn, boneseed, blackberry, gorse and broom are the most serious weeds in shrubby forests. See **Kit 3 Weeds in Your Bush** for details of control measures.

# Managing by condition

The best management regime for shrubby forest will depend on the condition of the bush. Management guidelines based on the condition of the bush are given below. However, the specific needs of threatened plants may override these recommendations. If you are unsure what condition your bush is in refer to **Kit 1 Bush on Your Farm**.

## Excellent condition

Shrubby forest in excellent condition is characterised by:

- A healthy shrub layer.
- Low levels of weed invasion.

Bush in excellent condition is an asset. Maintain your current management regime. There is no need to change your management practices unless there is an obvious reason to do so.

If there are any signs of weed invasion, an active weed control program, particularly of gorse and broom, may be needed to maintain the integrity of shrubby bush in excellent condition. Only burn gorse if you are able to apply herbicide following the burn. Shrubby forest may become wet forest in the natural process of succession following fire. If you do not want this to occur, burn at least once every 40 years. However, do not burn any shrubby forests that are higher than 900 m above sea level.

You may wish to limit access to sensitive areas through strategic fencing. This includes areas with grazing-sensitive threatened species, areas where there is a high risk of erosion such as in gullies, and where the regeneration of trees and shrubs is needed.

## Good condition

Shrubby forest in good condition is characterised by:

- Some old and dying small-leaved shrubs.
- Weed invasion. Gorse can be a major problem in shrubby forests. Only burn gorse and broom if you are able to apply herbicide following the burn.

If the small-leaved shrubs are dying through old age, burning the understorey will generally result in their regeneration. However, do not burn any shrubby forests higher than 900 m above sea level. Burning can also be useful for killing some woody weeds such as cotoneaster and hawthorn. Other woody weeds will require follow-up work after fire, using hand pulling where possible (e.g. South African boneseed) or an application of herbicide.

## Poor condition

Shrubby forest in poor condition is characterised by:

- Extensive areas of bare ground.
- No regeneration of trees and shrubs.
- Severe weed problems.

Burning the understorey of shrubby forest in poor condition will result in the regeneration of trees and shrubs. However, do not burn shrubby forests if they are higher than 900 m above sea level. Burning will also kill the woody weeds such as cotoneaster and hawthorn. Some woody weeds will need follow-up work after burning. For example, some weeds will need to be pulled by hand (e.g. South African boneseed) or given an application of herbicide.

Consider rehabilitating bush that is severely degraded, particularly if there is extensive erosion.

# Looking after wet forest

Wet forest has an understorey in which broad-leaved tall shrubs and small trees such as dogwood (*Pomaderris apetala*), musk (*Olearia argophylla*), and blanket leaf (*Bedfordia salicina*) form a prominent layer. The shrub understorey is often dense, preventing continuous regeneration of shade-intolerant species such as eucalypts. Alternatively, wet forest can have a ground layer in which ferns, excluding bracken, are dominant, or an understorey dominated by temperate rainforest trees, such as myrtle beech (*Nothofagus cunninghamii*), sassafras (*Atherosperma moschatum*), and celerytop pine (*Phyllocladus aspleniifolius*). This forest type is often called mixed forest. The canopy of wet forest may be dominated by a range of eucalypts. Most swamp gum (*Eucalyptus regnans*), yellow gum (*Eucalyptus johnstonii*), and yellow alpine gum (*Eucalyptus subcrenulata*) forests are wet forests. A number of other eucalypt forests may also be wet forest, including white gum (*Eucalyptus viminalis*), blue gum (*Eucalyptus globulus*), stringybark (*Eucalyptus obliqua*), gum-topped stringybark (*Eucalyptus delegatensis*), Smithton peppermint (*Eucalyptus nitida*), and snow gum (*Eucalyptus coccifera*). Wet forests occur on moderately fertile to fertile well-drained soils in high rainfall areas.

## Good examples

Wet forest can be seen in all parts of Tasmania. Near Hobart it is found on the middle slopes of Mt Wellington. Near Launceston it is found on the mountains to the east and north west of the city.

## Biodiversity values

Relatively little wet forest has been cleared. However, large areas have been modified by logging and considerable areas will be lost to plantations in the future. The most heavily cleared and modified wet forest communities are swamp gum forest and blue gum forest. The latter community has lost a substantial part of its range in Tasmania and is poorly reserved.

Most wet forest types are well reserved. Wet forest contains few threatened plant species but it is an important habitat for rare and threatened fauna. Significant fauna include the little pygmy possum (*Cercartetus lepidus*), eastern quoll (*Dasyurus viverrinus*), long-nose potoroo (*Potorous tridactylus*), and the scrubtit (*Sericornis magnus*), which is an endemic bird restricted to the ground and leaf litter layer of wet gullies. Wet forests are also important for invertebrates, including landsnails such as the *Tasmaphena lamproides* and *Helicarion rubicundus* which have restricted distributions. Wet forests provide habitat for 15 species of primitive moth in the family Hepialidae, many of which are endemic. Wet forests dominated by blue gum mostly occur on private land. They form important habitat for the vulnerable swift parrot.

**THREATENED ANIMALS OF WET FORESTS INCLUDE:**

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| Wedge-tailed eagle (*Aquila audax fleayi*) |
| Swift parrot (*Lathamus discolor*) |
| Grey goshawk (*Accipiter novaehollandiae*) |
| Spotted-tail quoll (*Dasyurus maculatus*) (nationally vulnerable) |
| Broad-toothed stag beetle (*Lissotes latidens*) |
| Blind velvet worm (*Tasmanipatus anopthalmus*) |
| Mt Arthur burrowing crayfish (*Engaeus orramakunna*) |
| Burnie burrowing crayfish (*Engaeus yabbimunna*) |
| Simsons stag beetle (*Hoplogonus simsoni*) |
| Mt Mangana stag beetle (*Lissotes menalcas*) |
| Bornemissas stag beetle (*Hoplogonus bornemissza*) |
| Vanderschooris stag beetle (*Hoplogonus vanderschoori*) |
| North east forest snail (*Anoglypta launcestonensis*) |

**THREATENED PLANTS OF WET FORESTS INCLUDE:**

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|---|
| Small-leaf pomaderris (*Pomaderris elachophylla*) |
| Round-leaf mint bush (*Prostanthera rotundifolia*) |
| Gristle fern (*Blechnum cartilagineum*) |
| Skirted tree fern (*Cyathea* X *marcescens*) |
| Scrambling ground fern (*Hypolepis distans*) |
| Small rasp fern (*Doodia caudata*) |

Refer to **Kit 5 Threatened Plant Species in Your Bush** for more information and an illustration of each species.

# Management issues

Wet forest needs a fire every few hundred years to enable regeneration of the eucalypts. However, frequent fire will eliminate the ferny and broad-leaved understories, converting them to dry forest. Planned fire in wet forest is extremely dangerous because the fuel levels are high and it can only be burnt in the most extreme weather conditions. Wet forest is of little use to graziers because it has little fodder, although it may be valuable for shelter in some situations. Heavy grazing or logging can open up the understorey and allow the invasion of weeds, especially blackberry (*Rubus fruticosus*).

The critical management recommendations for wet forest are:

- Exclude fire. The only exception to this recommendation is where it may be necessary to burn wet forest after logging in order to promote the regeneration of eucalypts. In this situation the Forestry Code of Practice should be followed.
- Control weeds. Weeds are not usually a problem in wet forests. However, blackberries can become a problem after logging, fire or grazing. **Kit 3 Weeds in Your Bush** provides detailed information on weeds and their management.