



Flora Technical Note No. 4: Management of relict rainforest



The *Flora Technical Note Series* provides information for Forest Practices Officers on flora management in production forests. These technical notes are advisory guidelines and should be read in conjunction with the requirements of the Tasmanian *Forest Practices Code*.

Technical notes can be accessed on the Forest Practices Authority's website: www.fpa.tas.gov.au

1. Introduction

Rainforest is widely distributed in Tasmania; however in drier parts of the state, notably lowland environments in the east, north and north-east, it is restricted to small, disjunct patches amidst eucalypt forest types. The term 'relict rainforest' refers to such patches, which are outside the typical climatic 'envelope' of rainforest.

Rainforest covers approximately 710 000 hectares of Tasmania's land area (based on TASVEG mapping 2007). It represents 95% of Australia's cool temperate rainforest, and has ecological connections with rainforest in New Zealand, New Caledonia and Patagonia – all once part of the ancient continent Gondwana. The most extensive areas of Tasmanian rainforest are in the north-west, with large areas of rainforest also occurring in high rainfall environments in the south-west (often in mosaic with eucalypt forest, scrub and moorland) and in the north-east highlands (generally in association with eucalypt forest).

The 'relict' rainforest patches in drier regions of the state are regarded as 'leftovers' from periods when the climate was more suited to rainforest. These small patches typically occur in humid or fire-shadow environments (i.e. sites that have escaped fire for hundreds of years). Most relict rainforest falls into the 'callidendrous' rainforest group (described in Harris and Kitchener 2005).

The information presented in this flora technical note is based largely on *Relict Rainforest in Eastern Tasmania* (Neyland 1991).

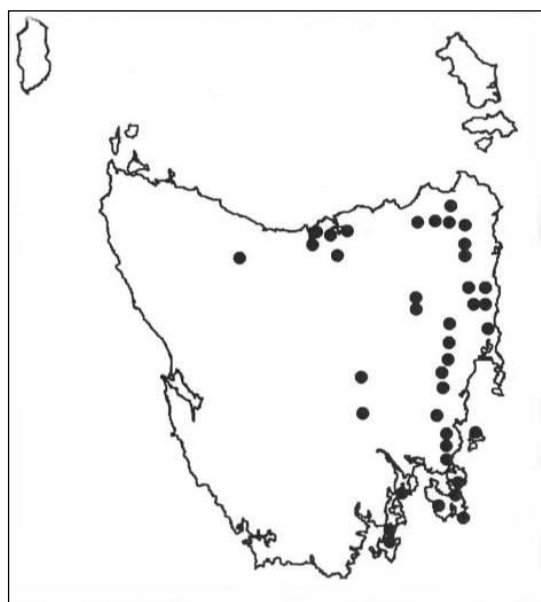
Distribution and composition of relict rainforest

There are over 140 known patches of relict rainforest. They are listed at the end of this technical note (based on Neyland 1991).

Patches of relict rainforest vary from 0.5 to 300 hectares, but most are between two and twenty hectares (see Table 1). The largest patches are on Bruny Island and Forestier Peninsula. Many relict rainforest patches are contained in formal reserves (e.g. Douglas-Apsley National Park; Sandspit River Forest Reserve; Holwell Gorge Nature Reserve). Most sites on State forest outside reserves are identified as Special Management Zones or Protection Zones on Forestry Tasmania's Management Decision Classification system.

The adjacent map shows the known distribution of relict rainforest in Tasmania.

Other patches may be encountered during forest assessments. Most will be in areas that have a PI typing of M, S or S.T. They should be referred to the Forest Practices Authority's Biodiversity Program or Forestry Tasmania's conservation planning section (if on State forest).



Areas containing rainforest on the eastern slopes of Blue Tier have been identified in the RFA as glacial refugia and are to be treated as relict rainforest. This is because rainforest surviving on these sheltered sites in a forthcoming glacial period would provide a source of seed or spores that would facilitate recolonisation of other areas by rainforest species in the subsequent warmer interglacial period. The Blue Tier glacial refuge is effectively bounded in the south by Lottah Road, in the west by Blue Tier Forest Reserve, in the north by a line from Sun Flats to New England Road and in the east by Terrys Hill Road. Rainforest to the north and east of the glacial refuge (and in the eastern part of the glacial refuge itself) qualify as relict rainforest.

2. Relict rainforest types

The floristic composition and vegetation structure of relict rainforest can range from callidendrous to thamnisc rainforest types, dominated by myrtle (*Nothofagus cunninghamii*) or sassafras (*Atherosperma moschatum*).

Rainforest community types can be keyed out using the key below, which gives the abbreviated community names used in the Forest Botany Manual (Forest Practices Authority 2005). The table gives the corresponding community names used by Neyland (1991). All relict rainforest communities are classified as 'Nothofagus– Atherosperma rainforest' (coded RMT) in the current TASVEG classification (Harris and Kitchener 2005) and as 'Callidendrous and thamnisc rainforest on fertile sites' (coded M+) in the RFA classification of Tasmanian forest communities.

Key to rainforest communities

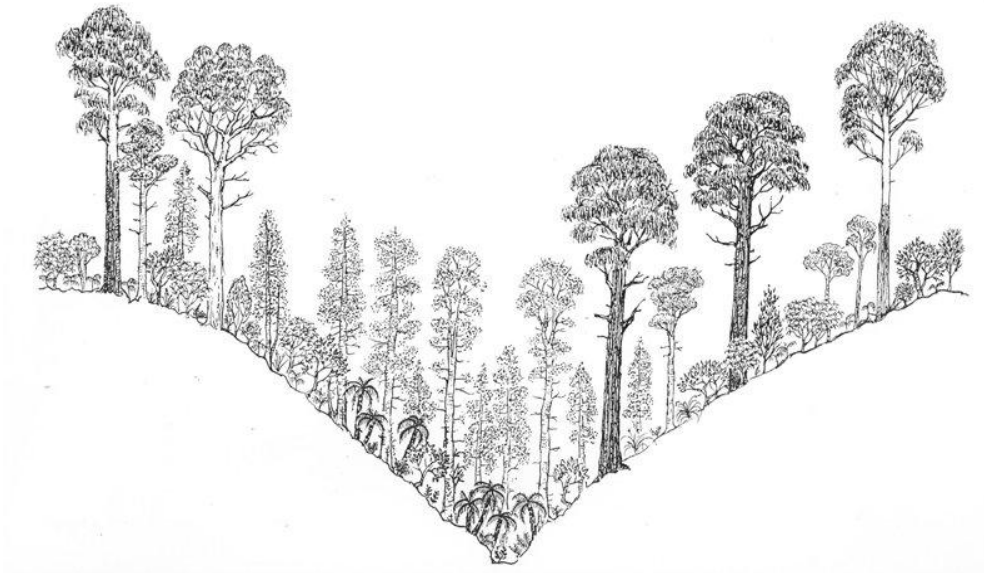
- ❶ Dominated by myrtle
 - ❷ Ground ferns prominent
 - ❸ Musk common.....RAIN-C3.1
 - ❸ Musk sparse or absent
 - ❹ Celery-top pine or native laurel present.....RAIN-CT
 - ❹ Celery-top pine and native laurel absentRAIN-C1.1
 - ❷ Ground ferns rare; woolly tea-tree or native pepper often present.....RAIN-C2.1
- ❶ Dominated by sassafras
 - ❷ Musk common.....RAIN-C3.2
 - ❷ Musk sparse or absent
 - ❸ Celery-top pine or native laurel present.....RAIN-CT
 - ❸ Celery-top pine and native laurel absentRAIN-C1.2
- ❶ Celery-top pine prominent in the canopyRAIN-CT3

Community abbreviation (Forest Botany Manual 2005)	Community name from report by Neyland (1991)
RAIN-C1.1	Callidendrous myrtle rainforest [with musk common]
RAIN-C1.2	Sassafras fern forest
RAIN-C2.1	Callidendrous myrtle -tea-tree rainforest
RAIN-C3.1	Callidendrous myrtle rainforest
RAIN-C3.2	Callidendrous sassafras-musk rainforest
RAIN-CT	Callidendrous / thamnisc myrtle rainforest
RAIN-CT3	Callidendrous / thamnisc celery-top pine rainforest



**Callidendrous
sassafras-musk
rainforest (RAIN-C3.2)
(northeast)**

Sassafras and musk, which are the canopy dominants of this community, are seen here to be largely restricted to the immediate streamside. The rainforest is generally surrounded by blackwoods, beyond which the vegetation changes quickly to dry open eucalypt forest.



**Callidendrous
sassafras-musk
rainforest (RAIN-C3.2)
(eastern highlands)**

In contrast to the rainforest illustrated above, this example of RAIN-C3.2 lacks blackwood and there is a sharp transition into dry eucalypt forest on the northwest facing slope compared to the broader transition on the upper southeast facing slope. There is often a rich epiphytic fern flora under the shade of the sassafras canopy.



**Callidendrous X
thamnic myrtle
rainforest (RAIN-CT)**

This rainforest type has both callidendrous and thamnic affinities. Typical callidendrous species such as myrtle and sassafras may be prominent in the upper canopy (sometimes accompanied by celery-top pine). The dominants are generally of poor form and the understorey dense and diverse, typically including native laurel.

Drawings by Fred Duncan



Callidendrous myrtle rainforest (RAIN-C3.1) (highland example A)

This rainforest type generally has a myrtle and sassafras canopy with musk and ferns prominent in the understorey. Where the canopy is closed the understorey is sparse and open. The example illustrated here is the relict rainforest at Lookout Hill in the Douglas-Apsley National Park. It occupies a fire-protected shelf; above and below the rainforest is wet eucalypt forest.



Callidendrous myrtle rainforest (RAIN-C3.1) (highland example B)

Regarded as the same community type as the example above, this illustration depicts the structure of one of the highest stands of rainforest in the eastern highlands. The sharp transition from rainforest to open *Eucalyptus delegatensis* forest seen here is characteristic of this community type.



Callidendrous myrtle rainforest (RAIN-C3.1) (riverine)

This riverine variant on the callidendrous myrtle rainforest community is generally restricted to alluvial flats. Where such sites are wide enough it is similar to the highland subcommunity (above). However, it is frequently restricted to a narrow band, allowing more light to penetrate the canopy and wet sclerophyll species to persist. Upslope the vegetation grades rapidly into wet or dry eucalypt forest.

3. Values of relict rainforest

Relict rainforest patches are important for a number of reasons. Some of these are described below.

- **May support flora species of high conservation significance**

Some relict rainforest sites may be important sites for threatened flora species or other species with restricted distributions. They include *Cyathea cunninghamii* (slender tree fern) and *Cyathea Xmarcescens* (skirted tree fern), both listed on the *Threatened Species Protection Act 1995*. Species that are localised in drier regions of the state (e.g. celery-top pine, *Phyllocladus aspleniifolius*) may occur in relict rainforest.

Relict rainforest patches often support a high diversity of ferns and non-vascular species, which may have restricted distributions at landscape or regional levels.

- **May support fauna species of high conservation significance**

Relict rainforest patches can be very important sites for localised fauna species, as they often offer habitat with a very restricted and disjunct distribution in the landscape (often surrounded by very different forest types such as dry or wet sclerophyll forest). For example, relict rainforest in the Sandspit River Forest Reserve supports the threatened broad-toothed stag beetle (*Lissotes latidens*), and relict rainforest patches in the northeast support threatened species such as the Simsons stag beetle (*Hoplogonus simsoni*).

Relict rainforest may also be locally important for species reliant on certain plants. For example, the Macleays swallowtail (*Graphium macleayanum*) relies on sassafras as a food plant, a species often restricted to localised gully vegetation in drier areas of the state. Other species (e.g. pink robin, *Petroica rodinogaster*) breed in densely vegetated forest gullies.

Protecting the rainforest, and a surrounding buffer of native forest, can be important in maintaining localised habitats for many fauna species. Management of flora and fauna values is often complementary.

- **May contain sites of archaeological significance**

Some relict rainforest patches are known to contain sites of archaeological significance. For example, relict rainforest in the Sandspit River Forest Reserve contains sandstone overhangs that may have been used by the Aboriginal people of the region. The bridge crossing the river, known as Robinsons Bridge, is an excellent example of wooden bridge construction using traditional techniques. Evidence of historical timber extraction activities (e.g. tramways) can be seen in other patches of relict rainforest.

4. Management issues

Relict rainforest is prone to disturbance, including those associated with adjacent forestry operations. The impacts of disturbance on relict rainforest can be very long-lasting. Some of these are discussed below. For more detail, refer to Neyland (1991).

- **Physical disturbance**

The greatest threat to relict rainforest patches is changes to the rainforest microclimate (e.g. air and soil temperature, humidity), which can result from disturbance to the canopy or adjacent forest. A drier rainforest microclimate will kill species (e.g. filmy ferns, bryophytes, lichens, fungi) that require high humidity, and will competitively advantage pioneer species (e.g. bracken, bats-wing fern) that exploit higher light levels on the forest floor (and are often more flammable than the species they have replaced). This is one of the reasons for retaining buffers adjacent to relict rainforest patches.

A drier understorey also makes the rainforest more susceptible to fire. Damage to myrtles may facilitate infection or spread of myrtle wilt (caused by the fungus *Chalara australis*).

Disturbance to the northwest side of a rainforest patch can exaggerate the impact of the disturbance due to the site being more exposed to sun and wind. The effects of disturbance appear to be more marked and will last longer on climatically marginal rainforest sites.

- **Fire**

Severe fire can result in relict rainforest patches being replaced by wet eucalypt forest. Less severe fire, or severe scorch, will result in changes to rainforest microclimate (effects described above). Drier microclimates resulting from fire or disturbance makes the rainforest more susceptible to fire. The impacts of fire may be most pronounced on climatically marginal rainforest sites, especially if there are fires in rapid succession.

- **Disease**

The myrtle wilt fungus (*Chalara australis*) can kill myrtles in relict rainforest. The disease can spread from infected trees to uninfected trees by root contact. Damage to myrtles will greatly increase the chances of infection (Packham 1991). Myrtle wilt will be the subject of another flora technical note (in preparation).

Numerous rainforest species are susceptible to *Phytophthora* (root rot fungus). *Phytophthora* is not generally a threat to intact rainforest because the shade provided by the dense canopy cools the soils to below the optimum temperature for the pathogen, however it may become a serious threat to a disturbed rainforest. Refer to *Flora Technical Note 8* for a full discussion of *Phytophthora* and associated management prescriptions.

- **Weed invasion**

Weeds have difficulty establishing in undisturbed rainforest due to lack of suitable substrates and the density of canopy cover. Any opening of the canopy may allow weeds such as thistles to establish. Weed invasion (e.g. blackberry) may be more prevalent on unstable sites such as river banks prone to flooding.

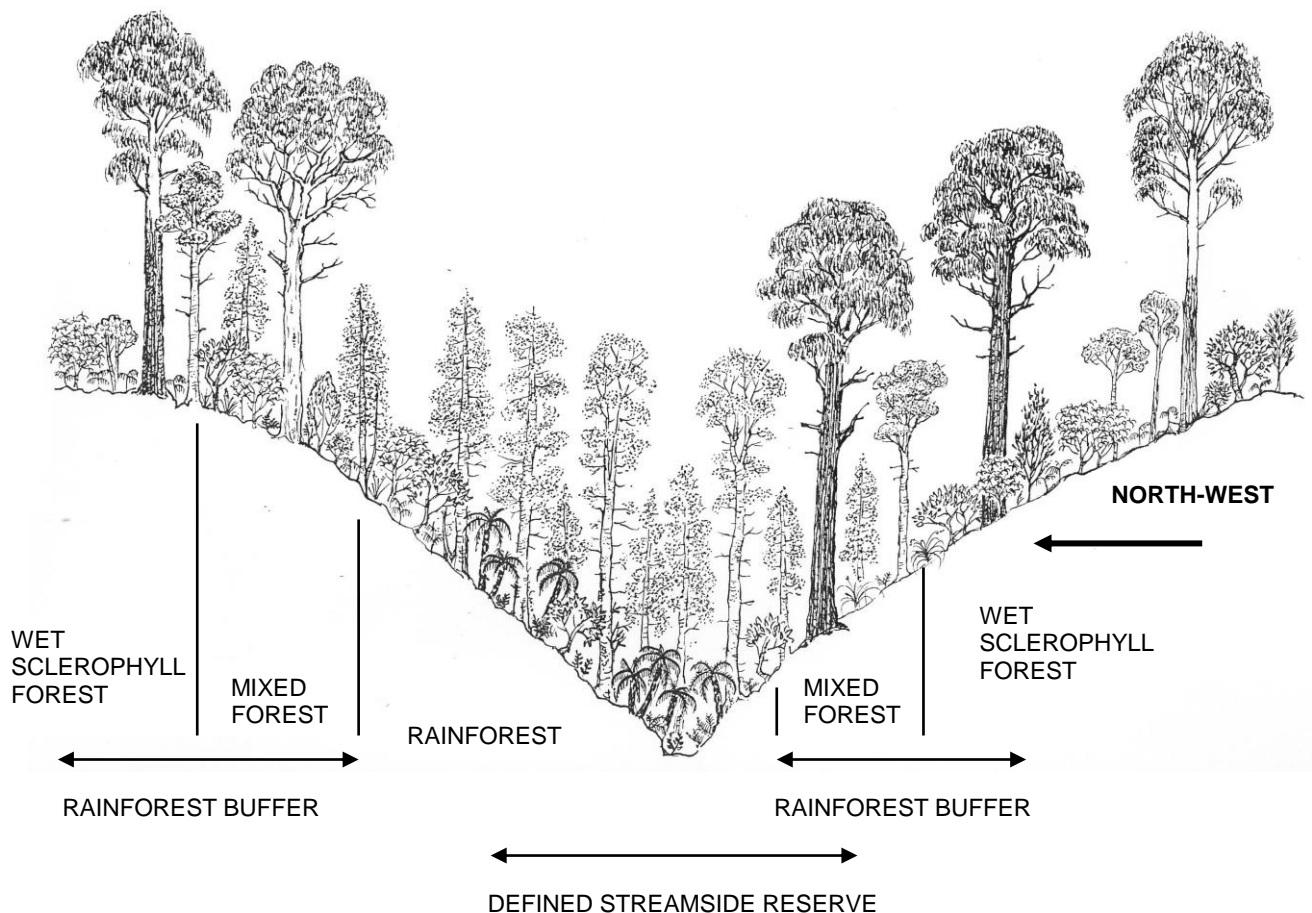
5. Recommended management considerations

The *Forest Botany Manual* Regional Modules and the Forest Practices Plan Evaluation Sheets indicate that the FPA Biodiversity Program must be notified if relict rainforest patches (either known or new sites) could be affected by proposed forestry activities. Site visits by FPA specialists will not normally be needed if the patches have been accurately assessed on the ground and management issues (e.g. fire management, roading, etc.) have been considered appropriately.

The management actions listed below should be considered prior to seeking advice, to ensure that all issues have been addressed. All of the recommendations may be applicable in some circumstance – in others only some may be appropriate.

- Rainforest should have a buffer sufficient to prevent changes to the rainforest microclimate (e.g. humidity, air and soil temperatures). *The minimum buffer should be at least 40 m width (horizontal distance) but this should be extended if a 40 m zone will not provide adequate protection to the rainforest patch.* For example, a patch of rainforest on a ridgeline or tier should have a buffer of at least 80 m on its northwest margin, where there will be greater exposure to drying winds and fire. Rainforest and part of the buffer will often coincide with a streamside reserve.
- *No disturbance (including felling of trees) should occur in the rainforest or rainforest buffer.* Where adjacent to streams, such areas should be contained in the defined streamside reserve.
- There should be *no cable hauling of logs* through the retained rainforest and buffer. Similarly, cable holds and lines should avoid the retained vegetation. Myrtle should not be used as an anchor point for cable logging operations in adjacent coupes.
- *Any trees within the coupe that may fall into the retained rainforest and buffer should be carefully assessed* prior to falling. In some circumstances, a slight modification of the coupe boundary may be required to prevent accidental damage to the retained forest. In some cases, it may be possible to directionally fall trees such that they cause minimal disturbance (e.g. fall into previously disturbed sections of buffer but avoid rainforest). Any trees that accidentally fall into the retained forest should be carefully assessed prior to removal. In some cases, leaving the felled tree in place may be the most appropriate action (i.e. if severe damage is anticipated in removing the tree). In other cases, it may be quite easy to remove the tree with minimal additional disturbance to the understorey vegetation. Removing the heads of trees prior to dragging out the remainder of the tree may assist in minimising damage.

- *Fire should be excluded from the rainforest and buffer.* Special prescriptions may need to be included in Forest Practices Plans or burn plans to ensure that coupe boundaries adjacent to the rainforest patch are managed with great care. Careful pre-logging planning should take place to ensure that the coupe boundary shape is compatible with achieving a successfully contained regeneration burn. Prescriptions such as ensuring burning in appropriate conditions such that fire will move away from the rainforest patch (largely to prevent escape and scorch effects) may need to be included. Additional or wider mineral earth fire breaks may be appropriate in some circumstances. Pulling logging slash and debris away from the coupe boundary may assist in minimising scorch effects. Where practical, windrows should not be placed parallel to the reserved coupe boundary and/or located as far as possible from the coupe boundary.
- *Newly found relict rainforest patches should be appropriately identified on planning maps (e.g. SMZ (Flora) or Protection Forest on MDC system.)*



Example of a relict rainforest buffer. No logging would occur in the rainforest or rainforest buffer (which extends beyond the defined streamside reserve on the south-east facing slope).

Table 1. Known relict rainforest patches (from Neyland 1991). Map grid references are in the AGD datum, and are accurate to 100m. To convert to GDA, add 112 to the easting and 183 to the northing.

Map Sheet (1: 25 000)	Grid Reference	Locality	Size (ha)
Adventure Bay	523200 – 5201200	Simpsons Creek	22
Adventure Bay	523300 – 5205500	Driscolls Hill	5
Adventure Bay	523400 – 5201600	Simpsons Creek	22
Beaconsfield	480700 – 5432200	Holwell Gorge SR	2
Bell Bay	496300 – 5445700	Tippogoree Hills	1
Blue Tier	589900 – 5439800	tributary of Great Musselroe River	19
Blue Tier	591200 – 5439700	Reids Creek	6
Blue Tier	591800 – 5439900	Reids Creek	6
Blue Tier	592200 – 5438900	upper Ansons River	2
Blue Tier	592700 – 5434000	Terrys Creek	5
Brilliant	589000 – 5416600	Beahrs Creek near Hogans Road	2
Castra	424000 – 5421500	tributary of Castra Rivulet	6
Colonels	574000 – 5337600	Clearwater Creek	5
Colonels	574500 – 5330800	Meredith River tributary	19
Colonels	574500 – 5333500	Big Sassy Creek	123
Darlington	591400 – 5283400	Bishop and Clerk	1
Derby	561700 – 5445000	Ringarooma River near Branhholm	32
Exeter	483000 – 5422800	Little Supply River catchment	5
Exeter	483300 – 5423200	Supply River catchment	5
Exeter	483500 – 5424200	Supply River catchment	15
Exeter	492700 – 5421400	S of Notley Gorge SR	1
Exeter	481000 – 5426000	Upper tributary of Supply River	2
Fingal	594200 – 5387500	Lightwood Rivulet	10
Fingal	595100 – 5387800	tributary of Lightwood Rivulet	2
Fingal	598600 – 5387200	Break O'Day River	5
Fluted Cape	522800 – 5199200	Saintys Creek	300
Fluted Cape	524500 – 5192500	Mt Midway	60
Fluted Cape	524500 – 5195500	Mt Tobin	125
Fluted Cape	524900 – 5197200	Waterfall Creek	5
Fluted Cape	525000 – 5190500	Mt Banks	50
Fluted Cape	526300 – 5193300	E of Mt Midway	19
Harford	473300 – 5432900	Wallaby Creek catchment, Dazzler Range	41
Harford	474400 – 5439100	Browns Creek catchment, Dazzler Range	5
Harford	474800 – 5436600	Browns Creek catchment, Dazzler Range	3
Harford	475000 – 5436500	Branchs Creek catchment, Dazzler Range	3
Harford	475100 – 5431600	Saxons Creek catchment, Dazzler Range	5
Harford	475300 – 5436700	Branchs Creek catchment, Dazzler Range	5
Harford	475400 – 5432000	Saxons Creek catchment, Dazzler Range	4
Harford	475500 – 5437600	Browns Creek catchment, Dazzler Range	3

Map Sheet (1: 25 000)	Grid Reference	Locality	Size (ha)
Harford	475600 – 5432300	Saxons Creek catchment, Dazzler Range	1
Harford	475600 – 5436100	Branchs Creek catchment, Dazzler Range	2
Harford	475600 – 5438900	Saxons Creek catchment, Dazzler Range	8
Harford	475700 – 5437300	Browns Creek catchment, Dazzler Range	3
Harford	476300 – 5434500	Wallaby Creek catchment, Dazzler Range	4
Harford	476500 – 5436800	Andersons Ck catchment, Dazzler Range	10
Harford	476500 – 5437500	Andersons Ck catchment, Dazzler Range	10
Harford	477300 – 5436200	Andersons Ck catchment, Dazzler Range	5
Harford	477500 – 5435400	Andersons Ck catchment, Dazzler Range	3
Harford	478600 – 5431700	Saxons Creek catchment, Dazzler Range	3
Hippolyte	575100 – 5229300	E of Denmans Creek	10
Hippolyte	577500 – 5221600	near Agnes Creek	5
Hippolyte	578100 – 5226000	Bivouac Creek	10
Ironhouse	601000 – 5399200	Ferntree Glen Creek	5
Ironhouse	604400 – 5391200	Little Marsh Creek	10
Ironhouse	606800 – 5394200	Old Billys Creek	5
Kellevie	568600 – 5267700	tributary of Bream Creek	10
Kellevie	570200 – 5268000	upper Bobbatinka Creek	15
Kellevie	570800 – 5268700	Mt Walter	10
Kellevie	572300 – 5268200	Pine Creek	5
Kellevie	573200 – 5268800	Mt Jacob	10
Kempton	524500 – 5290300	Little Quoin CA	1
Lanka	583600 – 5453300	Black Creek	5
Lanka	584600 – 5455000	tributary of Swain Creek	5
Lanka	584900 – 5454000	tributary of Ringarooma River	2
Lanka	587500 – 5455200	Old Chum Creek	5
Lanka	592300 – 5455600	Sassafras Creek	5
Leake	572600 – 5343200	tributary of Rocky Rivulet	5
Leake	573000 – 5341500	tributary of Rocky Rivulet	12
Leake	573000 – 5346900	Wyefield Rivulet	9
Leake	574000 – 5345000	tributary of Lost Falls Creek	13
Leake	574300 – 5342100	Rocky Rivulet	5
Leake	575000 – 5342900	Rocky Rivulet	5
Leake	575000 – 5344000	tributary of Rocky Rivulet	5
Monarch	578100 – 5461700	Clifton Creek	5
Murdunna	575200 – 5244500	upper Bellettes Creek	1
Murdunna	575800 – 5243100	Bun Hill	5
Murdunna	576000 – 5241300	east of Lizard Hill	8
Murdunna	576000 – 5242200	Sounds Rivulet	4
Murdunna	578000 – 5241300	Fazackerleys Ridge area	120
Murdunna	579500 – 5242800	E of Franks Knob	35
Murdunna	579900 – 5247300	tributary of McGuinness Creek	1

Map Sheet (1: 25 000)	Grid Reference	Locality	Size (ha)
Orford	569600 – 5281000	Flash Tier area	8
Orford	571000 – 5281400	Flash Tier area	5
Orford	572000 – 5281700	Flash Tier area	5
Orford	572000 – 5282300	Flash Tier area	4
Pearly Brook	559700 – 5452400	Pearly Brook near Forester	1
Piccaninny	600200 – 5380900	tributary of Douglas River	2
Piccaninny	604500 – 5388900	Lower Marsh Creek	2
Pioneer	561600 – 5451000	tributary of Boobyalla River	2
Pioneer	561900 – 5453400	tributary of Boobyalla River	6
Pioneer	563400 – 5454200	Swanee Creek	2
Port Arthur	563600 – 5227700	Mt Clark	10
Port Sorell	472700 – 5444600	Fenton Creek	5
Port Sorell	473000 – 5443000	Briggs Creek catchment	3
Port Sorell	478100 – 5441000	Masseys Creek	5
Port Sorell	474000 – 5442700	York Town Rivulet catchment	3
Port Sorell	474400 – 5442500	York Town Rivulet catchment	1
Pyengana	590000 – 5421800	Toms Gully	10
Royalty	567100 – 5315900	SE of Royalty Ridge	12
Royalty	570200 – 5318200	Tiger Creek	1
Royalty	571100 – 5319800	S Moaners Tier	4
Royalty	571600 – 5318600	tributary of Kenneth Creek	6
Roys	574500 – 5360800	Jam Creek	2
Roys	574500 – 5361200	Jam Creek	4
Roys	576200 – 5360200	Jam Creek	5
Sandspit	567900 – 5275300	Prosser Sugarloaf	2
Sandspit	568100 – 5271900	Cone Hill	14
Sandspit	568200 – 5275000	upper Wielangta Creek	5
Sandspit	568600 – 5271300	SE of Cone Hill	4
Scottsdale	547700 – 5442200	tributary of Surveyors Creek	2
Scottsdale	550300 – 5444200	tributary of Arnon River	3
Seymour	600200 – 5377700	Douglas River tributary	12
Seymour	601400 – 5377600	ENE of Lookout Hill	45
Snow	569900 – 5358400	Cygnets River	2
Snow	570900 – 5357600	Cygnets River	2
Snow	571300 – 5350400	tributary of Brushy River	2
Snow	573200 – 5355300	Meetus Falls	6
Snow	573500 – 5352700	Brushy River	8
Snow	574100 – 5352400	Brushy River	6
Snow	575200 – 5359700	Jelly Creek	2
Snow	576200 – 5357100	Cygnets River	8
Spurrs Rivulet	589000 – 5449000	slopes above Great Musselroe River	20
Spurrs Rivulet	589500 – 5447700	tributary of Great Musselroe River	12

Map Sheet (1: 25 000)	Grid Reference	Locality	Size (ha)
Spurrs Rivulet	589600 – 5449900	upper Great Musselroe River	5
Spurrs Rivulet	590000 – 5441500	upper Great Musselroe River	16
Spurrs Rivulet	590000 – 5445200	slopes above Great Musselroe River	10
Spurrs Rivulet	590600 – 5445700	upper Great Musselroe River	5
Spurrs Rivulet	591300 – 5440300	tributary of Tinkle Creek	6
Spurrs Rivulet	591300 – 5446500	tributary of Tinkle Creek	5
Spurrs Rivulet	592300 – 5445600	tributary of Tinkle Creek	3
Spurrs Rivulet	597000 – 5443200	Spurrs Rivulet area	4
St John	589700 – 5372400	tributary of Swan River	2
St John	591800 – 5373200	tributary of Swan River	2
St John	592700 – 5372700	tributary of Swan River	4
St John	593300 – 5372100	upper Myrtle Creek	9
St John	593700 – 5372500	slopes above Apsley River	19
St John	593800 – 5373600	slopes above Apsley River	20
St John	596100 – 5374000	tributary of Apsley River	2
St John	596100 – 5374700	near Possum Creek	2
St John	597200 – 5377000	slopes above Douglas River	9
St John	598300 – 5374900	N of Organ Hill	5
Stacks	552600 – 5391600	Vickory Creek	1
Stanhope	558400 – 5382300	Castle Cary Rivulet	1
Table	515300 – 5325800	upper Blackman River	1
Taranna	573400 – 5233000	Plateau Road area	3
Taranna	574000 – 5233700	Plateau Road area	5
Taranna	574300 – 5232900	Plateau Road area	12
Taranna	574600 – 5234700	Arthurs Peak	8
Taranna	576400 – 5230700	N of Tatnells Hill	15
Tasman	577500 – 5218800	creek S of Mt Fortescue	2
Tasman	578600 – 5219700	Mt Fortescue	10
Tooms	569900 – 5321300	Rocka Rivulet	20
Tooms	570500 – 5320000	upper tributary of Tiger Creek	4
Tooms	570500 – 5321800	Rocka Rivulet	2
Tooms	571300 – 5320500	upper tributary of Kenneth Creek	10
Tooms	572400 – 5321500	Lis Dillon Rivulet	36
Tooms	573500 – 5322000	Kafoozalum Creek	18
Tooms	574000 – 5325000	slopes above Kafoozalum Creek	79
Tooms	574900 – 5328600	slopes above Kafoozalum Creek	5
Triabunna	564000 – 5296200	Back River	10
Triabunna	565600 – 5299600	Baldy Creek	7
Triabunna	566300 – 5298300	upper MacLaines Creek	5

References

- Forest Practices Authority 2005, *Forest Botany Manual*, Forest Practices Authority, Hobart.
- Harris, S, Kitchener, A, 2005, *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation*, Tasmanian Department of Primary Industries, Water and Environment, Hobart.
- Jarman, SJ, Brown, MJ and Kantvilas, G 1984, *Rainforest in Tasmania*, National Parks and Wildlife Service, Tasmania.
- Jarman, SJ, Kantvilas, G and Brown, MJ 1991, *Floristic and Ecological Studies in Tasmanian Rainforest*, Tasmanian NRCP Technical Report No. 3, Forestry Commission, Tasmania, and Department of the Arts, Sport, the Environment, Tourism and Territories, Canberra.
- Neyland, MG 1991, *Relict Rainforest in Eastern Tasmania*, Tasmanian NRCP Technical Report No. 6, Parks, Wildlife and Heritage and Department of the Arts, Sport, the Environment, Tourism and Territories, Canberra.
- Packham, JM 1991, *Myrtle Wilt*, Tasmanian NRCP Technical Report No. 2, Forestry Commission, Tasmania, and Department of the Art, Sport, the Environment, Tourism and Territories, Canberra.

Publication details

This technical note has been prepared by Mark Wapstra, Nina Roberts and Fred Duncan. It should be cited as:

Forest Practices Authority 2009, Management of relict rainforest, *Flora Technical Note No. 4*, Forest Practices Authority, Hobart.

Contact details

Forest Practices Authority: 30 Patrick Street, Hobart, Tasmania 7000.

Phone: (03) 62337966; Fax: (03) 62337954

Email: info@fpa.tas.gov.au; Website: www.fpa.tas.gov.au

Forestry Tasmania: 79 Melville Street, Hobart, Tasmania 7000.

Phone: (03) 62358205 (Biology and Conservation Branch)

Email: info@forestrytas.com.au; Website: www.forestrytas.com.au

Document Summary Information

Document name	Flora Technical Note No.4: Management of relict rainforest
Version	2.1
Trim record	2009/35277
Owner	Biodiversity Section Staff
Author(s)	Biodiversity Section Staff
Release date	November 2009
Release Approved by	Biodiversity Manager
Release status	For publication on the FPA webpage and other external distribution

Version Control

Version	Date	Author(s)	Summary of changes
2	Nov 2009	Biodiversity Section Staff	Document previously available on FPA website revised. Previous revisions pre-date document control.
2.1	Feb 2011	Nina Roberts	Note: the wording of this document is identical to that approved by the FPA Biodiversity Manager in early 2010, except for the addition of document control information.