

## **Gippsland Vegetation Types: Ecological Vegetation Classes (EVC's)**

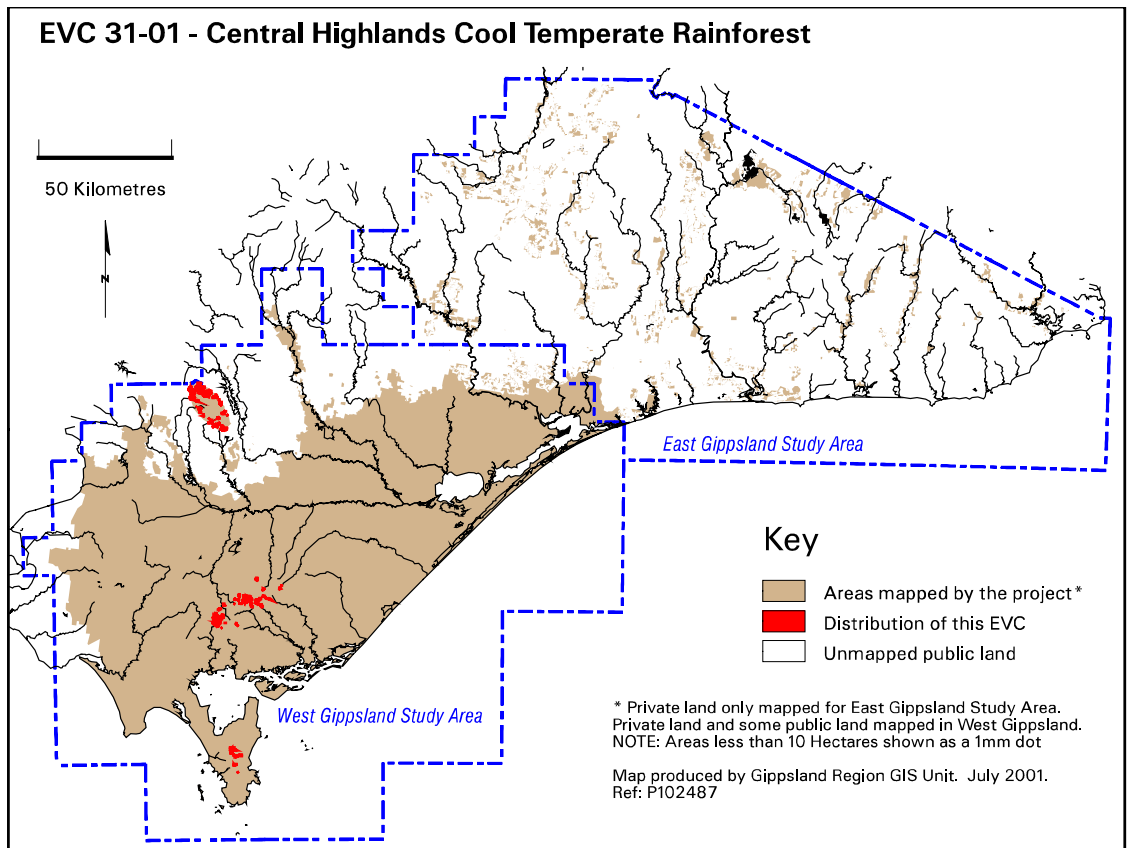
EVC description derived from Davies et.al (2001) Ecological Vegetation Class Mapping at 1:25 000 in Gippsland.

### **EVC 31 Cool Temperate Rainforest**

Occurs in the most topographically and fire-protected high rainfall areas of Wet Forest. Overstorey is typically dominated by rainforest trees with a dense understorey of tree ferns that support a rich epiphytic flora. The ground layer includes a number of "wet fern" species. Cool Temperate Rainforest incorporates several floristic communities that are discussed in Peel (1999).

#### **Floristic Community 31-01 *Central Highlands Cool Temperate Rainforest***

|   |   |
|---|---|
| <b>Elevation (metres above sea level)</b> | 500-1200  |
| <b>Average rainfall p.a. (mm)</b>         | Cool temperate with snowfall a common event during winter at higher altitudes. Average annual rainfall is 1000-1200 mm  |
| <b>Topography</b>                         | Protected headwaters of the Baw Baw plateau, Strzelecki ranges and mountain ranges in Wilsons Promontory National Park  |
| <b>Geology</b>                            | Variable, ranging from granite, granodiorite and other acid volcanics to marine sediments   |
| <b>Soils</b>                              | Variable, ranging from deep, well-structured krasnozems to deep uniform to gradational textured loams and clay loams  |
| <b>Related/adjacent EVCs/FCs</b>          | Wet Forest, Warm Temperate Rainforest, <i>Wilsons Promontory Overlap</i> Cool Temperate Rainforest  |
| <b>Present land use</b>                   | Timber harvesting, nature conservation, recreation, water catchment   |
| <b>Present distribution</b>               | Strzelecki ranges, Wilsons Promontory National Park, Baw Baws   |
| <b>Examples of sites/quadrats/lists</b>   | Strzelecki ranges: Morwell River West Branch (U23368), Middle Creek (U23369), Tarra-Bulga National Park, Gunya Gunya Rainforest Reserve, headwaters of Paradise Valley and protected slopes of Mt Latrobe, Wilsons Promontory National Park |
| <b>Total Area(ha)/ Number of polygons</b> | 826/221   |



#### **Vegetation: structure/floristics:**

Cool Temperate Rainforest is characterised by the absence or poor representation of grasses and herbs and a diverse fern flora with life forms ranging from tall tree-ferns to delicate epiphytes and ground ferns.

Myrtle Beech *Nothofagus cunninghamii* and Southern Sassafras *Atherosperma moschatum* typically form the moss-covered canopy and are the most conspicuous character species. Commonly found shrubs include Austral Mulberry *Hedycarya angustifolia*, Musk Daisy-bush *Olearia argophylla*, Banyalla *Pittosporum bicolor* and Prickly Currant-bush *Coprosma quadrifida*. Adjoining areas with a similar understorey and topographic protection can be dominated locally by Blackwood *Acacia melanoxylon*. Mountain Ash *Eucalyptus regnans* is the most frequent eucalypt.

The fern-dominated understorey is typically open in structure and includes old-growth trunks of Soft Tree-fern *Dicksonia antarctica* and Rough Tree-fern *Cyathea australis* covered with a diversity of delicate epiphytic filmy-ferns. These plants are only one cell thick and are extremely sensitive to drought stress. Species such as Austral Filmy Fern *Hymenophyllum australe*, Narrow Filmy Fern *H. rarum* and Shiny Filmy Fern *H. flabellatum* are indicator species for Cool Temperate Rainforest, whilst Common Filmy fern *H. cupressiforme* is also frequently present but less faithful to this EVC. The rare Slender Tree-fern *Cyathea cunninghamii* and Skirted Tree-fern *Cyathea x marcescens* are also good indicator species and occur along the most topographically protected watercourses, often near waterfalls where local humidity levels are highest.

A number of other epiphytic ferns are present on mossy tree trunks, such as Kangaroo Fern *Microsorium pustulatum* subsp. *pustulatum*, Weeping Spleenwort *Asplenium flaccidum*, Veined Bristle-fern *Crepidomanes venosum* and Common Finger-fern *Grammitis billardieri* whilst the climber, Fieldia *Fieldia australis*, is also frequently present at low altitudes in West and South Gippsland. Rare epiphytic primitive fern allies are sometimes present such as Long Fork-fern, *Tmesipteris obliqua*.

The ground layer includes "wet fern" species such as Mother Shield-fern *Polystichum proliferum* as well as Leathery Shield-fern *Rumohra adiantiformis* several *Blechnum* species including Hard Water-fern *B. wattsii*, and ferns that occur along watercourses and seepages such as Lance Water-fern *B. chambersii*, Strap Water-fern *B. patersonii* and Ray Water-fern *B. fluviatile*.

**Comments:**

*Central Highlands Cool Temperate Rainforest* has floristic links with *Strzeleckis Warm Temperate Rainforest*, *Wilson's Promontory Overlap Cool Temperate Rainforest*, *Wilson's Promontory Overlap Warm Temperate Rainforest*.

In this project the Cool Temperate Rainforest in the Strzelecki ranges has been incorporated in the Central Highlands floristic community. Other studies such as Peel (1999) have split the *Strzelecki Cool Temperate Rainforest* off as a separate floristic community from the Central Highlands group.

**Gippsland species list including species frequency and fidelity.**

- Fidelity:** Rating of faithfulness of a species to an EVC or Floristic Community. Highest fidelity rating indicated by an "F" ie species only recorded in respective group.
- % Frequency:** Percentage occurrence of a species/taxa in an EVC or Floristic Community – **NB. Species highlighted red are the most frequent and important.**  
\* = weed ie: non native.  
Rarity categories from NRE's Flora Information System (FIS).

**EVC 31-01: CENTRAL HIGHLANDS COOL TEMPERATE RAINFOREST**

| Lifeform   | Scientific Name                              | Common Name              | % Fr              | F    |    |
|------------|--|--------------------------|-------------------|------|----|
| Trees      | <i>Eucalyptus regnans</i>                    | Mountain Ash             | 100               | 39   |    |
|            | <i>Nothofagus cunninghamii</i>               | Myrtle Beech             | 78                | 235  |    |
|            | <i>Acacia melanoxylon</i>                    | Blackwood                | 67                | 4    |    |
|            | <i>Atherosperma moschatum</i>                | Southern Sassafras       | 56                | 168  |    |
|            | <i>Acacia dealbata</i>                       | Silver Wattle            | 33                | 6    |    |
| Shrubs     | <i>Hedycarya angustifolia</i>                | Austral Mulberry         | 100               | 45   |    |
|            | <i>Olearia argophylla</i>                    | Musk Daisy-bush          | 67                | 10   |    |
|            | <i>Pittosporum bicolor</i>                   | Banyalla                 | 56                | 48   |    |
|            | <i>Coprosma quadrifida</i>                   | Prickly Currant-bush     | 56                | 3    |    |
|            | <i>Olearia lirata</i>                        | Snow Daisy-bush          | 44                | 4    |    |
|            | <i>Correa lawrenciana</i>                    | Mountain Correa          | 33                | 57   |    |
|            | <i>Tasmania lanceolata</i>                   | Mountain Pepper          | 33                | 45   |    |
|            | <i>Cassinia trinerva</i>                     | Three-nerved Cassinia    | 33                | 21   |    |
|            | <i>Zieria arborescens</i>                    | Stinkwood                | 22                | 19   |    |
|            | <i>Rapanea howittiana</i>                    | Muttonwood               | 22                | 7    |    |
|            | <i>Prostanthera lasianthos</i>               | Victorian Christmas-bush | 22                | 5    |    |
|            | <i>Cassinia aculeata</i>                     | Common Cassinia          | 22                | 1    |    |
|            | Climbers/Vines                               | <i>Clematis aristata</i> | Mountain Clematis | 78   | 5  |
|            |  | <i>Parsonsia brownii</i> | Twining Silkpod   | 56   | 32 |
| Epiphyte   | <i>Fieldia australis</i>                     | Fieldia                  | 100               | 151  |    |
| Tree-ferns | <i>Dicksonia antarctica</i>                  | Soft Tree-fern           | 100               | 24   |    |
|            | <i>Cyathea australis</i>                     | Rough Tree-fern          | 100               | 16   |    |
|            | Rv <i>Cyathea cunninghamii</i>               | Slender Tree-fern        | 44                | 179  |    |
| Ferns      | <i>Cyathea x marcescens</i>                  | Skirted Tree-fern        | 33                | 201  |    |
|            | <i>Grammitis billardieri</i>                 | Common Finger-fern       | 100               | 172  |    |
|            | <i>Rumohra adiantiformis</i>                 | Leathery Shield-fern     | 100               | 151  |    |
|            | <i>Blechnum wattsi</i>                       | Hard Water-fern          | 100               | 63   |    |
|            | <i>Microsorium pustulatum</i>                | Kangaroo Fern            | 100               | 34   |    |
|            | <i>Hymenophyllum australe</i>                | Austral Filmy-fern       | 89                | 1071 |    |
|            | <i>Crepidomanes venosum</i>                  | Veined Bristle-fern      | 89                | 179  |    |
|            | <i>Histiopteris incisa</i>                   | Bat's Wing Fern          | 89                | 32   |    |
|            | <i>Hymenophyllum rarum</i>                   | Narrow Filmy-fern        | 67                | F    |    |
|            | <i>Hymenophyllum flabellatum</i>             | Shiny Filmy-fern         | 67                | 268  |    |
|            | <i>Tmesipteris obliqua</i>                   | Long Fork-fern           | 67                | 268  |    |
|            | <i>Blechnum fluviatile</i>                   | Ray Water-fern           | 67                | 134  |    |
|            | <i>Hymenophyllum cupressiforme</i>           | Common Filmy-fern        | 67                | 100  |    |
|            | <i>Asplenium bulbiferum ssp. gracillimum</i> | Mother Spleenwort        | 67                | 80   |    |

| <b>Lifeform</b> | <b>Scientific Name</b>                         | <b>Common Name</b>  | <b>% Fr</b> | <b>F</b> |
|-----------------|--|---------------------|-------------|----------|
|                 | <i>Blechnum chambersii</i>                     | Lance Water-fern    | 56          | 335      |
|                 | <i>Asplenium flaccidum</i>                     | Weeping Spleenwort  | 44          | F        |
|                 | <i>Blechnum patersonii</i>                     | Strap Water-fern    | 44          | 89       |
|                 | <i>Polystichum proliferum</i>                  | Mother Shield-fern  | 44          | 5        |
|                 | <i>Blechnum nudum</i>                          | Fishbone Water-fern | 33          | 10       |
|                 | <i>Sticherus tener</i>                         | Silky Fan-fern      | 22          | F        |
| Herbs           | <i>Australina pusilla</i> ssp. <i>muelleri</i> | Shade Nettle        | 67          | 19       |
|                 | <i>Hydrocotyle hirta</i>                       | Hairy Pennywort     | 56          | 4        |
|                 | <i>Viola hederacea</i>                         | Ivy-leaf Violet     | 33          | 2        |
|                 | <i>Senecio minimus</i>                         | Shrubby Fireweed    | 22          | 4        |
|                 | <i>Sambucus gaudichaudiana</i>                 | White Elderberry    | 22          | 3        |
|                 | <i>Euchiton gymnocephalus</i>                  | Creeping Cudweed    | 22          | 2        |
| Lilies          | <i>Dianella tasmanica</i>                      | Tasman Flax-lily    | 33          | 16       |
| Sedges          | <i>Carex appressa</i>                          | Tall Sedge          | 67          | 8        |
|                 | <i>Isolepis inundata</i>                       | Swamp Club-sedge    | 33          | 13       |
|                 | <i>Lepidosperma elatius</i>                    | Tall Sword-sedge    | 22          | 6        |
| Grasses         | <i>Tetrarrhena juncea</i>                      | Forest Wire-grass   | 78          | 6        |
| Weeds           | * <i>Hypericum androsaemum</i>                 | Tutsan              | 22          | 17       |
|                 | * <i>Rubus fruticosus</i> spp. agg.            | Blackberry          | 11          | 2        |