

Environment and heritage

Gippsland is a region of great environmental diversity, ranging from alpine environments along its boundary with the North East RFA region, to extensive coastal areas along its southern edge.

Biodiversity

Ecosystems

The biodiversity assessment is based on a study of forest ecosystems and communities (ecological vegetation classes or EVCs), flora and fauna species and their habitats, and the potential threats to these in the region.

The regional assessment identified 104 environmental ‘strata’ or units sharing similar environmental factors such as temperature, rainfall and geology, 67 of which were forested and large enough to evaluate. Across these strata, 103 EVCs were identified in the region. Fourteen of these occur predominantly on private land, with the remaining 89 mainly on public land. Fifty-nine EVCs were recognised as rare, endangered or vulnerable. Some may never have been widespread, but for many their current status is connected with past land-use, particularly clearing for agriculture. Swampy Riparian Woodland, for example, which once covered 15,630 hectares in the region, has been reduced to less than one per cent of its former extent.

Rare and endangered species

About 2,500 species of vascular (higher order) plants have been recorded for the Gippsland region, including 348 species of conservation significance. At least 62 of these are rated as critically endangered, including 12 that have an important part of their distribution in the region. In all, the assessment highlighted 114 species as deserving regional priority for management.

The assessment identified 34 species of rare or threatened mammals, reptiles, birds, frogs and fish in Gippsland, including the Broad-toothed Rat, Eastern Bent-wing Bat, Grey Goshawk, Powerful Owl, Swamp Skink, Giant Burrowing Frog and Macquarie Perch. The threatened Giant Gippsland Earthworm is virtually endemic to Gippsland.

The biodiversity assessment reviewed factors that may predispose flora and fauna species to decline or extinction, as well as the impacts of disturbances—such as timber harvesting and fire—and the current management in place to mitigate these effects.

Of the aquatic fauna reviewed, seven species of fish (including the Macquarie Perch and the Australian Grayling) and eight macro-invertebrates are considered threatened. The main disturbances identified were vegetation clearing, dam construction, grazing and such introduced exotics as trout. Increased turbidity is the single most significant threat to populations. The creation of Heritage River corridors and the application of the Code of Forest Practices for Timber Production aim to reduce some of the impacts.

Old-growth forest

Analysis of forest age classes through aerial photography, together with assessment of past disturbances using logging, fire and other historical records, was used to identify old-growth forest. Old-growth is defined as ‘forest which contains significant amounts of its oldest growth stage in the upper stratum - usually senescing trees - and has been subjected to any disturbance, the effect of which is now negligible’.

A total of 14.5 per cent (209,000 hectares) of the region’s forested public land has been identified as old-growth. The assessment found that old-growth occurs in 39 EVCs in the region, with seven EVCs accounting for 75 per cent of the total area of old-growth. Old-growth is by no means confined to the taller wet forests, but can be found in a number of the drier, more open forest types. Information is provided about the extent to which old-growth in each EVC is currently protected within conservation reserves.

Wilderness

The 1996 *Wilderness Assessment of the Eastern Victorian Forests* found four areas of high wilderness quality (Avon, Mount Darling/Snowy Bluff, Macalister and Wilsons Promontory) within the region, with all of them fully contained within the dedicated reserve system.

In total, 95 per cent of the total area delineated as significant for high wilderness quality in the Eastern Victorian forests region is protected. The national reserve criteria (JANIS 1997) specify that 90 per cent (or more, if practicable) of the area of high quality wilderness that meets the minimum area requirements should be in reserves.

World Heritage

The World Heritage Assessment expert panel identified five potential sub-themes in Victoria which warrant further investigation. Three are potentially relevant to the Gippsland region:

- areas with outstanding examples of *Eucalyptus*-dominated vegetation associated with the Eastern Forests of Victoria;
- parts of the Australian marginal swells associated with the Eastern Highlands; and
- Cretaceous fossils (as exemplified by sites in the Leongatha region).

Any assessment of potential World Heritage values would need to be undertaken in a context broader than that of the Gippsland RFA, as the expression of these sub-themes extends to other Victorian RFA regions and areas beyond Victoria. The Commonwealth and Victoria remain committed to carrying out such an assessment in cooperation with all relevant States.