



A biodiversity snapshot of north east Victoria

North East Victoria features spectacular alpine country, forests and river valleys of the Northern Fall bioregion and grassy woodlands of the Northern Inland Slopes bioregion, both draining to gently undulating and plains landscapes of the Victorian Riverina, Central Victorian Uplands and Goldfields bioregions.

The Victorian Alps cover 500,000 ha and straddle the Great Dividing Range between North East Victoria and Gippsland. Alpine plants and animals have evolved to cope with the extremes of their environment — low temperatures, high winds and snow cover for long periods. As a result, many species and ecological communities are found only in the alpine area. In the North East, they include several species at risk of extinction, such as Alpine Water Skink, Mountain Pygmy-possum and Stirling Stonefly, Cushion Caraway and Small Star Plantain. Mountain pygmy possum numbers remain at critically low levels, but a small increase in numbers at Mt Buller after extensive habitat reconstruction appears positive. Global warming remains a key threat to alpine ecosystems.

Today, the Victorian Alps remain largely intact with the majority of the area set aside as National Park, however ski resorts have a historically heavy footprint on summit eco-systems. Uses need to be carefully managed so that alpine vegetation (particularly herb-fields, sphagnum bogs and streams) are not damaged and flora and fauna are not placed at risk. A number of alpine environments were burnt by wildfire in 2003 and/or 2007. Alpine flora species such as podocarp (Mountain Plum Pine) will take many decades to recover.

Some of Victoria's Highlands are located in the Northern Fall bioregion of North East Victoria, featuring stunning mountain ranges and the foothills of the Great Dividing Range. This bioregion supports a wide variety of vascular and non-vascular plants, arboreal and terrestrial mammals, reptiles, forest-dwelling birds and birds of prey including the large forest owls. One of Victoria's Faunal Emblems, the Leadbeater's possum, occurs in Ash eucalypt forest on the north side of the Great Dividing Range but continues to decline in numbers. Loss of hollow bearing trees remains a major problem in this area. A number of flora species, including Tree Geebung, Forest Sedge, Buxton Gum and Shiny Phebalium, are endemic to the Victorian Highlands. The rivers and streams of the Victorian Highlands support populations of native fish, including the endangered Barred Galaxias which are endemic to the Goulburn River headwaters and a wide variety of native aquatic invertebrates. Global warming may have a major impact on this and other species. In 2006, two of 19 known sites for Barred Galaxias dried up. Populations persist due to a removal program to captivity. The critically threatened Spotted treefrog is in severe decline due to trout predation and Chytrid fungus disease.

The Northern Inland Slopes bioregion is a small part of a larger bioregional system in New South Wales, which extends across the Murray River into North East Victoria. It occurs on the granite, metamorphic and sedimentary lower foothills to the north of the Great Dividing Range. The landscape consists of foothill slopes and minor ranges separated by river valleys that drain northward from the High Country to the Murray River. Biodiversity values associated with the original grasslands and woodlands of the area have been fragmented since settlement.

The Victorian Riverina extends into North East Victoria, characterised by wide flood plain areas associated with major river systems including the Goulburn, Ovens and Murray rivers. Major environmental features include the Barmah Red gum forests and Northern Plains Native Grasslands. Agriculture is the dominant land use with approximately 90 per cent of the land in private ownership with extensive irrigated farmlands on the plains of the Goulburn and Murray Valleys. Grasslands and Grassy Woodlands once covered much of the Riverina but broad-scale clearing has led to this vegetation being restricted to small but significant areas of public and private land. Many of these remnants are currently too small or isolated to support viable populations of fauna but could be re-linked with appropriate restoration activities.

Animals species still found within this bioregion include ground dwelling and arboreal mammals such as the Yellow-footed Antechinus, Fat-tailed Dunnart and Lesser Long-eared Bat. Reptiles (Bearded Dragon, Olive Legless Lizard, Striped Skink, Eastern Brown Snake, and Woodland Blind Snake) and amphibians (Southern Bullfrog, Common Spade-foot Toad and the Spotted Marsh Frog) are all found within the area. Intensive use of Red Gum forests for timber production has resulted in a reduction in the amount of mature remnant forest. Hollow-dependent species such as the Barking Owl, Carpet Python, Superb Parrot and Regent Parrot are in decline across the region. Loss of woody debris ground cover has affected fauna such as the Bush Stone-curlew, and the altered water regimes have significantly reduced the number of colonially nesting water birds. The eastern end of the Central Victorian Upland Bioregion extends into North east Victoria, via valley systems from Seymour through Yea to Mansfield. These landscapes are characterised by remnant large old trees of the original Grassy Woodlands and some small areas of intact native grassland mostly on private property. Woodland birds, Bush-tailed Phascogale and Striped Legless Lizard have most to gain from continuing efforts to reconnect this fragmented landscape.

Further resources

For more information about Victoria's unique biodiversity, please visit www.dse.vic.gov.au/landwhitepaper

A small but significant portion of Central Victoria's Goldfields bioregion extends into North East Victoria. This is largely characterised by Box-ironbark forests. Loss of hollow bearing trees, depletion of large woody debris and fragmentation contribute to stress on species such as Squirrel Glider, Brush-tailed Phascogale, Yellow footed Antechinus, Regent Honey-eater and the migratory Swift Parrot. Lake and wetland systems are important for waterbird conservation. Barmah Forest contains Ibis and other colonial nesting waterbird species. Protection of colony breeding and roosting sites is very important for their conservation, of which there are over 50 species recorded. Threatened, White bellied sea-eagles have extended their natural range from the Murray River onto impoundments such as Lakes Dartmouth and Eildon. The major waterways that drain the North East contain iconic threatened fish species, including Murray Cod, Catfish, Blue-nosed Cod, Golden Perch and Macquarie Perch.

Extensive efforts by landholders with assistance from various agencies to restore native vegetation and reconnection of ecosystems are continuing in North East Victoria. Some, such as reconstruction of boulder-field habitat for Mountain Pygmy possum at Mt Buller, may give relatively quick positive responses while others such as extensive revegetation in the Lurg area near Benalla are showing encouraging signs for some species, but may not deliver full ecosystem function for many decades. For some species such as the endemic Barred Galaxias, a good result would be to maintain the current small and isolated populations. Without major breakthroughs in control of Chytrid fungus and trout predation on Spotted treefrog, the species' future looks bleak.



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Images: Yellow-footed Antechinus - Image: Ian McCann, Leadbeaters Possum - Image: DSE, Eastern Brown Snake - Image: Ian McCann.