



A biodiversity snapshot of metropolitan Melbourne and the bays

The Port Phillip and Western Port Bays are largely characterised by urban and peri-urban areas. Due to their proximity to transport routes and water sources, the region has been substantially developed over the last two centuries. Home to the cities of Melbourne and Geelong, Port Phillip has become Victoria's business and population centre. An expanding population, and consequent habitat degradation and destruction, continues to pose challenges to the area's significant biodiversity.

Development pressures and growth of the residential, commercial and industrial areas surrounding Melbourne create conflict with wildlife populations, particularly Eastern Grey kangaroos, possums and snakes around the urban-rural interface. Land development has impacted native vegetation and habitat.

Although much of the region's vegetation has already been cleared, substantial biodiversity values persist — even in and around built-up areas. Key species and ecosystems that are valuable around Melbourne include: fauna residents such as possums; threatened species like the Powerful Owl; key waterways such as the Yarra River and Merri Creek and their value as significant habitat corridors; pockets of remnant native vegetation; Mount Dandenong and surrounds; and the bay's exceptional biodiversity, including its seagrasses.

The region has benefited from threatened species management projects involving: the Grey-headed Flying Fox colony at Yarra Bend State Park; the Helmeted Honeyeater at Yellingbo and Bunyip State Park; endangered species of orchids such as the Sunshine Diuris; and Growling Grass Frog populations in the south-east growth corridor.

Close to Melbourne, metropolitan parks and residential gardens are havens for a broad array of flora and fauna. These include populations of threatened species. Put in context, more than 40 per cent of the nationally listed threatened ecological vegetation communities occur in urban areas.

The urban forest, which includes vegetation along urban streets and in urban parks, bush-lots, undeveloped sites and residential areas, is a significant part of Victoria's total biodiversity. For many city dwellers, these areas provide their only interaction with a biodiversity-rich environment. They are also valued places for recreation. Furthermore, established urban areas often have small remnants of habitat and provide unique examples of pre-existing flora and fauna.

Further out in the peri-urban and green wedge areas, larger tracts of remnant bushland have been preserved. Threatened fauna species that still persist on Melbourne's urban fringe include the Striped Legless Lizard, Orange-Bellied Parrot, Golden Sun Moth, Eltham Copper Butterfly and Grassland Earless Dragon. There are also important ecological vegetation communities such as Plains Grassland to the west of Melbourne and the Coastal Moonah Woodland of the Mornington Peninsula. These communities are fast diminishing from their normal extent but provide vital habitat for fauna, as well as flora species such as the threatened Sunshine Diuris orchid, other orchid species and wild flowers.

Peri-urban areas around Port Phillip serve a wide range of economic, environmental and social functions. Land uses are similarly varied, but in general are typified by hobby farms.

There is significant agricultural output in the peri-urban fringe — on a per hectare basis, Port Phillip is four times more productive than other agricultural regions in Victoria. In fact, the Port Phillip region is the state's second highest producer of agricultural products.

Peri-urban farms also add substantial benefits to the region's environmental, social and public amenity. However, many of these businesses face long term challenges in terms of land use pressures, access to water and operational costs, particularly agribusinesses like vineyards.

The State Government recognises the value of establishing and preserving green wedges and other habitat links around Melbourne. This buffer, or green belt, enables landscapes to be managed sustainably. Moreover they will facilitate habitat conservation/creation, carbon sequestration, farm production, tourism and water quality measures.

We face ongoing challenges in terms of the impact of climate change and rising sea levels on biodiversity values in coastal and marine areas, particularly mangrove swamps and bayside beaches. Some important marine and coastal species include Little Penguins, migratory birds that visit the bay from Japan, Siberia and the northern Pacific, as well as Australasian Fur Seals and other visiting species such as Elephant seals. Marine mammals such as dolphins and whales can be viewed in the waters Port Phillip and Western Port during migration.

Further resources

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

Most of the coastline is reserved for public use and faces a myriad of pressures, not the least from population growth. Infrastructure pressures in terms of crowded roads and extra demands on water, sewerage, waste collection and additional stormwater runoff can cause environmental degradation. Similarly, environmental weeds, exotic species and the long-term absence of fire present a challenge for the management of this ecosystem

Coastal areas are the point at which most river systems enter the ocean and some crucial waterways, such as Kororoit Creek and the Werribee River, can be found on the western side of Port Phillip Bay. Activities within the wider river catchment can have an environmental impact on the coast.

In summary, there are significant biodiversity values within the Port Phillip region. However a wide range of threatening processes can impact on these values. Some of these processes include pressure of increased population growth, isolation of bush areas, fragmentation of vegetation corridors and loss of habitat for fauna species. These significant areas need to be carefully managed to ensure their biodiversity values are not impacted and are maintained for future generations.



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Images: Flying Fox colony at Yarra Bend - Image: DSE, Australian Fur Seals - Image: Michael Sale, Helmeted Honeyeater - Image: DSE.