

Jim Walker sub to Vic Ecosystem Decline

Website <https://www.parliament.vic.gov.au/epc-lc/article/4500>

I grew up in a river valley in a remote area of East Gippsland. The first farmers there cleared the river banks of native vegetation, something they were not supposed to do as the river banks were reserved as Crown Land, but there were no government officers to advise or enforce. In 1919 big floods initiated large scale erosion, and succeeding floods added to the scale of the erosion, and destabilisation of the river course, the loss of soil, and destruction of farm infrastructure such as fencing. From the 1940s until now large sums have been spent on stabilizing the river course and replanting the stream banks to halt erosion and channel widening. Much of the early restoration work was lessons in what not to do.

The main message from all this is that prevention is cheaper than the cure. It was already well understood that removing vegetation from river banks was bound to increase erosion and stream degradation, nevertheless, removal of riparian vegetation was common all across Victoria at the various times of settlement.

I have spent a lot of time working as a volunteer, as thousands of other people do, revegetating public and private land at my own expense and in my own time. This is encouraged by government, and it is not hard to work out why. Many of the areas I have worked on have subsequently been turned over to developers, for example, remnant urban grasslands, which were 'swapped' by the State government for the promise of reduced urban development and the creation of a large new grassland national park west of Melbourne, neither of which has happened.

I have to conclude that the main aim of government is to foster development of any kind at any cost. After all, it is at no cost to government apart from occasional embarrassment.

Terms of Reference Ecosystem Decline in Victoria

(a) the extent of the decline of Victoria's biodiversity and the likely impact on people, particularly First Peoples, and ecosystems, if more is not done to address this, including consideration of climate change impacts;

Foreign sealers and whalers were the first people to overexploit natural resources in Victoria, and elsewhere. Seals and whales still have not fully recovered from that exploitation. Blue Whales are still listed as endangered. Seals and whales now have legal protection from hunting in Victoria, but have an increasing array of other threats – ocean pollution, noise (e.g. seismic testing, shipping noise, military activities), competition for food with humans, tourism, microplastics and other marine debris, and oil spills.

The first land grabbers came to Victoria from Tasmania to establish sheep runs, as wool was a resource in high demand by English woollen mills. These corporates, later joined by others from New South Wales and England, brought in thousands of sheep and sent them off into the country with shepherds to find the best grasslands. This was the wild west, with Aboriginal people shot out of the way, and strong rivalry among the invaders for the best grazing land. The government pretended there was nothing it could do - except disallow a private land deal between Batman and local Aborigines. Soon, because of intensive grazing and trampling by hooved animals, the native grasslands gave out. Today there are no indigenous grassland ecosystems left. Although there are small patches of native grassland species persisting, they cannot be considered intact ecosystems, as the full suite of flora and fauna is no longer there, and the scale of the systems is not large enough to be self-sustaining.

The breeding of sheep for fine wool was accompanied by ranking of people. Aboriginal people were ranked below consideration, just savages. A convenient term for the invaders. The native fauna, particularly the mammals, was also deemed backward and primitive. Both native people and native animals underwent wholesale persecution. The Toolache Wallaby (*Macropus greyi*) was hunted for its beautiful coat and because its exceptional speed and agility appealed to hunter's lust for the excitement of the chase. It is now extinct everywhere. Many other medium to small mammals are extinct in Victoria. Persecution continues, with inappropriate development and needless killing. Recent examples are the killing of wildlife trapped inside expanding urban boundaries, and the wholesale slaughter of Wedge-tailed Eagles in East Gippsland, brought to public attention in 2018.

Large areas of native grassland have also been destroyed by the use of superphosphate fertilisers and the sowing of introduced species to 'improve' pastures (Kirkpatrick, 1995). Superphosphate contains salts and can increase salinity in soils and waterways. It also contains cadmium which can accumulate in soils, and which is particularly harmful to fish when it enters waterways.

The Gippsland Lakes are contaminated with mercury, partly from the use of mercury for extracting gold in in the catchment streams during the nineteenth century (the government of the day gave mercury away free to miners), and partly from mercury laden effluent drained into Lake Coleman by the paper mills at Maryvale. These lakes were once a freshwater system that rose and fell according to whether the sand bar at the entrance was closed or open, and the weather patterns in the catchment. The entrance was expanded in size and made permanent in the late 1800s, about the same time the Coode Island channel was cut to expand the port of Melbourne. Since then saline ocean water has penetrated further into the lakes system from the eastern end, while saline water is also draining into the lakes from the McAlister irrigation farms at the western end.

The first Australian Acclimatisation Society was set up in Victoria in 1861, although exotic animals and plants were being deliberately introduced into Australia from the time of the first fleet, including by many explorers. Motives included economic opportunism (cattle, sheep, wheat), the replacement of 'inferior' native species with more 'advanced' ones (trout, carp), a longing for familiar landscapes (willows, ivy, sparrows), and the tradition of 'gentleman's' hunting of prey (foxes, rabbits, pheasants). Victoria's most famous botanist Baron von Mueller always carried blackberry seeds with him to spread around on the basis that they might provide a useful food in future. The acclimatisation sentiment is still strong today as shown by the protection of feral deer, trout, and other foreign species, that are causing severe environmental damage in Victoria.

The rivers and streams in Victoria at the time of invasion were, in today's language, in 'pristine' condition, despite having large numbers of people living along them. Today, Victorian rivers are degraded at least in their middle and lower reaches with few exceptions. In 1835, when Melbourne was founded, the Yarra River had clean potable water all the way down to the rock ledge that used to cross the river where Queen Street in the city now is. Swimming in the river there now, let alone drinking from it, would be a health hazard. There is still no recognition in government policy that Australia is the driest continent on Earth. Our native fauna has had a hard time adapting to Australia's transition from mainly lush in Gondwanan times to mainly arid today. A great many creatures have retreated to niche habitats along short or ephemeral waterways. Dams on rivers and floodplains, draining of swamps, land clearing, clearfell logging, pumping out of groundwater, and mining have all

added greatly to drying out of the landscape. Climate warming, if it continues, will add to the drying out of Victoria caused by inappropriate development.

Two-thirds of Victoria's forests have been cleared since 1835. Clearing for agriculture has adverse outcomes for native ecosystems, mainly because it removes native flora and fauna and their habitats. Farmers and graziers generally remove most of the trees on their lands. Clearing of trees was a government condition of farm occupation in the nineteenth and twentieth centuries. Clear-felling of native forests for wood production also has severe impacts on native ecosystems and fragments habitat. Loggers systematically remove old, senescing trees, and dead trees from native forests as they want young even-aged stands most suitable for machine harvesting. Native forests are removed for urban expansion and tourist infrastructure, and roads, tracks and railway lines further fragment natural habitats. Fire breaks and planned burns, and wildfires, reduce habitats and further fragment whatever forest is left.

Mining (including quarrying) is carried out on an ever-increasing scale and not only commonly removes all vegetation, but the topsoil, subsoil and groundwater as well. In addition, mines often also produce large quantities of toxic spoil, which is left to leach into groundwater as a permanent hazard.

Impacts on Indigenous people. The corporate invaders of the early 1930s treated Aboriginal people as pests unless they were useful, that is, would guide explorers, point out water sources to the squatters, act as translators, or provide free or very cheap labour. Forceful methods were used to remove Indigenous people from their land, their language, their culture and their children. Native animals and plants, which indigenous people relied on for food and materials were wiped out by European farming methods, the introduction of exotic animals, harvesting of plants and animals for trade, and deliberate wanton destruction. Colonial culture is still imposed on indigenes today, although the methods are mostly more subtle.

Victoria has a Climate Change Act (2017). Wonderful. Means little of course. Encourages both the digging up of sequestered carbon in the form of coal and the re-sequestering of carbon biproducts resulting from burning coal. Seems like a lose-lose situation for Victorians.

(b) the adequacy of the legislative framework protecting Victoria's environment, including grasslands, forests and the marine and coastal environment, and native species;

The legislative framework protecting Victoria's environment could be improved by making it simpler, stronger, and mandatory. Why do we have a Wildlife Act and a Flora and Fauna Guarantee Act? The Wildlife Act 1975 purports to protect all wildlife and regulate hunting while the Flora and Fauna Guarantee Act 1988 purports to protect threatened species. Neither Act protects anything. Decisions are made on a political basis.

The Planning Act

Developers ride roughshod over current legislation, as it is generally not prescriptive, but even if prescriptive it is often ignored by bureaucracy and government. The responsible Minister can override the planning process at will. This power should be removed or severely restricted.

The Flora and Fauna Guarantee Act, Victoria's key piece of legislation for conservation of threatened species, has mandatory clauses and mandated time frames for processing species nominations. The government does not adhere to them. The Threatened Species Unit is under-staffed and underfunded. Their databases are out of date and unreliable.

Lack of implementation of legislation is a big problem. There is no point in changing legislation if it is not followed by government and its agencies. If there was good will and intention in politicians and people, no legislation would be needed. The swift, scientifically based action by governments against the COVID-19 virus, was a surprise to most people, but threats to environments and economies are not it seems, imminent enough to inspire concerted action.

Inadequacies in environmental legislation are compounded by lack of funding, lack of monitoring, lack of transparency, lack of enforcement, and lack of integration with other legislation and policies.

The 'Loss of hollow bearing trees from Victorian native forests' is listed as a Potentially Threatening Process under the Flora and Fauna Guarantee Act 1988, nevertheless hundreds are destroyed every week because VicForests presumes old trees are not hollow-bearing, or Forest Fire Management Victoria deems them 'hazardous', or a roading authority bulldozes them because there are no legal restraints on their behaviour.

The Victorian EPA is toothless through, I suspect, political direction, and lack of funding.

Offsets are a sham – mostly ineffective and counterproductive e.g. swapping a patch of vegetation threatened by development for a patch not threatened by development

Clearfell logging of public forests takes no account of losses this causes to stream flows

- or waterway pollution
- or losses to carbon storage
- or biodiversity loss
- or downstream drying of floodplains and riversides
- or impacts on freshwater invertebrates
- or impacts on freshwater fisheries
- or estuarine environments e. g, Coorong and Murray River mouth
- or estuarine fisheries
- or oceanic fish nurseries (often rivers and estuaries)

“**Extinction debt**” the future extinction of species due to events in the past e. g. reduction of fruit bats, which feed on tropical rainforest fruits and eucalypt blossoms, thus distributing seeds and pollen, could lead to the loss of many native trees in future. Legislation does not cover these kinds of events, but could try to address them by maintaining a all species across landscapes.

Current legislation only offers protection of a species once it is listed as threatened. This means that over time all species will become threatened, or extinct, but their environmental function may be lost before they are extinct, due to their low numbers, or only become apparent after they are gone.

(c) the adequacy and effectiveness of government programs and funding protecting and restoring Victoria's ecosystems;

Government programs and funding protecting and restoring Victoria's ecosystems are severely inadequate. The evidence for this is clear: an ever-growing list of threatened native plants and animals, declining native ecosystems and habitat, saline and degraded land, polluted and declining waterways, grasslands almost gone, forests disappearing, seagrass declining, etc.

The Precautionary Principle not used e.g. what are short-term impacts and long-term legacies of a proposed development. If you don't wreck it you don't have to restore it. Privatised profits and socialised losses seems to be the motto.

While the State government is talking up yet more Yarra River protection legislation it is in the process of implementing the North East Link project which involves channelling more urban runoff into the Yarra and its tributaries, concreting waterway channels or covering them over, and making sure that contractors do not have to worry about preventing toxic or sediment-laden runoff.

Ramsar sites neglected – see VAGO Report 2016 *Meeting Obligations to Protect Ramsar Wetlands and Cheetham wetlands*

Waste and pollution not adequately monitored or managed

- lack of recycling (a potential job creator)
- lack of a Container Deposit Scheme (a potential job creator)
- lack of monitoring, control of, and clean recycling or disposal of toxic and dangerous materials

The Victorian government is currently logging forests recently burnt by wildfires, while knowing that such logging compounds the destruction of natural values – prevents the recovery of regenerating trees, further disrupts the understory (e. g. emerging seedlings), increases soil disturbance and erosion, siltation of streams, disturbs and kills wildlife that has survived the fires, and needs food and clean water

Some reasons are –

Government controlled by developers and large corporations

Inadequate education systems

Lack of transparency – big decisions arrive unheralded 'from above' – public contracts are 'commercial in confidence'

Incremental effects of development are not considered.

Incidental effects of development are not considered.

Gross underfunding of monitoring and compliance measures

(d) legislative, policy, program, governance and funding solutions to facilitate ecosystem and species protection, restoration and recovery in Victoria, in the context of climate change impacts;

A wholistic approach is needed. For example, what is the point of restoring native habitats (or doing anything at all) if global warming continues, aided by State policies? Global warming is on track to be three degrees centigrade higher by the end of this century, and scientists cannot predict what will happen after that. A three degree rise in temperature will mean fisheries will be impacted. Forests will disappear or be utterly changed (See Nitschke and Hickey 2007).

Warming brings also the risk of wider spread of deadly diseases, and the rise of new diseases which will affect all life forms.

Nature does not recognise park boundaries, or State borders, and does not distinguish between public and private land. Therefore, management of invasive species, and other environmentally harmful processes must be across all land tenures.

No park or reserve is protected from development or destruction anywhere in Victoria. Legislation says it is, but it is not. National parks are places for ongoing tourist development in government eyes, and good places for introduced feral animals to live.

There is potentially a huge number of jobs in environmental monitoring, revegetation, and removing weeds and feral animals,
Present status of restoration work is low – cleaning up after someone else – no pay or low pay – no room for initiative
Restoration of land often requires very high skills and knowledge as natural environments can be extremely complex. An area in which indigenous people excel. An area for which there is an ever-increasing need world-wide where Australia could be a leader

All native forest logging should cease, due to adverse impacts on the natural environment and the State economy.

All development should be kept out of National Parks. Development has negative impacts on natural environments and the risks to infrastructure and people from wildfire increases as temperatures rise.

(e) opportunities to restore Victoria’s environment while upholding First Peoples’ connection to country, and increasing and diversifying employment opportunities in Victoria; and

I doubt there are many Aboriginal people who are opposed to restoring natural environments. These people have lived in direct contact with native environments for thousands of years and have adapted themselves and their environments in a comparatively harmonious relationship. The best way to learn about environments is to live in them.

Co-management seems to be a step in the right direction. The restoration of an Aboriginal aquaculture system in Budj Bim National Park in western Victoria is showing promise, and hopefully will not be turned into a Disneyland-style theme park.

More emphasis should be put on study of land and water management by indigenous people
More emphasis should be put on education at all levels in natural history, ecology, land management, and land restoration.

National Parks and reserves (including urban) could use some native revegetation, and weed control. Urban areas need more open space (especially Glen Eira, where I live, which has the least open space of any in municipality in greater Melbourne).

Colonial Australia uses huge amounts of natural resources, and is clearly unsustainable, as are the nations of the world generally. Land can only sustainably support a limited number of people. But the number of people it can support also depends on how many natural resources each inhabitant uses. If waste and overconsumption is reduced by common sense and application of science, then sustainability can be achieved by either having a high number of people living on limited resources, or a low number of people living extravagant lifestyles, or somewhere in between. Or we can steal other people’s resources, and leave them to starve. Aboriginal people in Australia traditionally use far less natural resources per person than colonials, and had probably what was the most enduring, most sustainable, social and political organisation in history.

(f) any other related matters.

The pursuit of mindless capitalism (the ‘free market’)

A corrupt, entrenched, and outdated political system

The structuring of corporations to avoid all liabilities

Population – Victoria doesn't appear to have a human population policy – except perhaps 'the more the better' – not a sustainable model. The 2018 Victorian SOE frequently mentions the stresses imposed on the environment by population growth, which the public do not want, as indicated by the low birth rates amongst Australian women.

Chemical use – in industry, households, farming, for weed control and for fire-fighting

References

Craig R. Nitschke and Gordon M. Hickey 2007 *Assessing the Vulnerability of Victoria's Central Highlands Forests to Climate Change*, Technical Report 1/2007 Prepared for the Department of Sustainability and Environment, School of Forest and Ecosystem Science.

Evans S. M. et al 2018 Seagrass on the brink: Decline of threatened seagrass *Posidonia australis* continues following protection

VAGO Report 2016 *Meeting Obligations to Protect Ramsar Wetlands and Cheetham wetlands*

Victorian State of Environment Report 2018

Victoria has 10 of 22 of Australia's smallest fish at risk of extinction within two decades

Extract from: The Conversation, 14 August 2020

<https://theconversation.com/australias-smallest-fish-among-22-at-risk-of-extinction-within-two-decades-144115?fbclid=IwAR2NvaJwJInW3Hbu9oa3Xf7ncNCHzRmCvxbdL2yYHOnVNBovqcxUWC7zXvc>

Species	Region	Likelihood of extinction within 20 years (%)
Shaw galaxias (<i>Galaxias gunaikurnai</i>)	Vic	≥70
West Gippsland galaxias (<i>Galaxias longifundus</i>)	Vic	≥70
Tapered galaxias (<i>Galaxias lanceolatus</i>)	Vic	≥70
Dargo galaxias (<i>Galaxias mungadhan</i>)	Vic	≥70
Morwell galaxias (<i>Galaxias sp.</i>) +	Vic	≥70
McDowall's galaxias (<i>Galaxias mcdowalli</i>)	Vic	≥70
Yalmy galaxias (<i>Galaxias sp.</i>) +	Vic	50–69
East Gippsland galaxias (<i>Galaxias aequipinnis</i>)	Vic	50–69
Moroka galaxias (<i>Galaxias sp.</i>) +	Vic	50-69
SW Victoria river blackfish (<i>Gadopsis sp.</i>) +	Vic	50-69

+ Species recently discovered and not yet formally described