

Submission to the Independent Review of the *Wildlife Act 1975*

30 June 2021

Summary

The Ecological Society of Australia (ESA) is the peak body of ecological scientists in Australia and welcomes the opportunity to contribute to the Independent Review of Victoria's *Wildlife Act 1975* (hereafter, the Act).

Victoria, much of Australia, and the world are in the midst of extreme environmental crises. South-eastern Australia experienced the most extensive bushfires on record, which were the product of the climate crisis, and exacerbated the biodiversity crisis. As we continue to suffer the effects of COVID-19, a new report suggests that the causes of this global crisis are linked to over-exploitation of wildlife, combined with massive human population size and unprecedented rates of global travel¹.

These crises point to a collective failure of our current systems to effectively manage our living planet and its wildlife.

We believe Victoria is well-equipped to rise to the challenge of addressing these crises: it is a politically stable, affluent, and skilled jurisdiction. Moreover, Traditional Owners and Aboriginal Victorians hold deep knowledge and relationship with Country, and Victoria is home to world-leading ecological researchers who are adding to the knowledge base required to address diverse environmental challenges. The ESA draws on the expertise of these researchers to provide input to this review.

In this context, and to achieve improved conservation of native Australian wildlife, we suggest the following options for reform of the Act:

Wildlife conservation measures

- Ensure that the Act protects all native wildlife by removing the ability to declare native wildlife species 'unprotected';
- Ensure that the Act protects species of cultural significance to Traditional Owners;
- Ensure that the Act addresses the connection of plants and animals and their spirits to First Nations people collectively and individually;
- Remove protections for introduced species (e.g. deer);
- Ensure that the Act provides clear and unambiguous protection of native wildlife habitat.

¹ <https://www.unenvironment.org/resources/report/preventing-future-zoonotic-disease-outbreaks-protecting-environment-animals-and>

Administrative measures

- Strengthen the administration, delivery and enforcement of the Act by establishing an independent statutory regulator which is guaranteed funding and a mandate for transparent and timely monitoring and public reporting;
- Reform the Authority to Control Wildlife system and administer, deliver and enforce it through the new independent statutory regulator;
- The Act should ensure ongoing and scientifically-robust monitoring of native wildlife populations and habitats, with priority given to: threatened species, species likely to be in decline, keystone species, and species subject to control authorisations;
- Include a provision in the Act that formally establishes a scientific advisory committee to ensure up-to-date and evidence-based decision making.

Further information on these points is provided below in response to questions outlined in the Panel's Issues Paper.

Wildlife conservation

1.1.1 In what ways does the Act succeed or fail in representing contemporary expectations for, and values relating to, wildlife in Victoria? Please provide examples from your own experience.

Since the 1970s when the Act was enacted, our planet has been transformed by a tenfold expansion in global trade, a fourfold increase in the global economy, a doubling of the human population, and a major shift towards urbanisation (WWF, 2020). The consequences for wildlife are clear; the global Living Planet Index shows an average 68% decrease in population sizes for mammals, birds, amphibians, reptiles and fish between 1970 and 2016 (Figure 1).

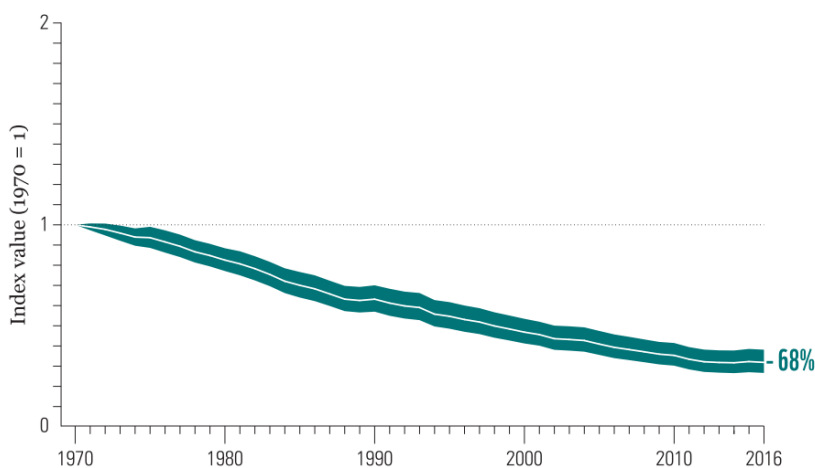


Figure 1. The global Living Planet Index: 1970 to 2016. Average abundance of 20,811 populations representing 4,392 species monitored across the globe declined by 68%. The green shading represents statistical uncertainty. Source: WWF (2020). 1970 has been set as a common starting year for many indicators because insufficient earlier information is available.

In Victoria, values and expectations regarding wildlife have evolved since 1975, when terms like 'biodiversity' were unfamiliar. For example, the Ecological Society of Australia (ESA) has grown over the past 45 years from a small group of ecologists to its current large and diverse membership, which spans universities, government departments, Aboriginal organisations, other non-government organisations, private industry and consultancies. The ESA creates an inclusive community to support research and knowledge sharing to better understand ecological systems, and we believe that its growth reflects contemporary expectations of the broader community regarding the importance of wildlife conservation.

Victorians generally place greater value on wildlife conservation than they did in 1975. For example, there are now 29 Bachelor and 17 Masters degree courses available on biodiversity and conservation at Australian universities, reflecting demand for training in the management of species and habitats threatened by human activities². In contrast, there are only 14 Bachelor degree courses available in fundamental ecology³. Australia's Biodiversity Conservation Strategy 2010-2030 lists the expansion of biodiversity coverage in school curricula as a priority action (Natural Resource Management Ministerial Council, 2010), and the Victorian Government's Biodiversity 2037 Plan prioritises raising the awareness of all Victorians about the importance of the state's natural environment, and increasing opportunities for Victorians to act to protect biodiversity (Victorian State Government, 2017).

The creation of new National Parks demonstrates an increasing awareness of the need to protect ecosystems for their biodiversity and cultural values (Victorian State Government, 2021). Conservation initiatives like predator-proof fences⁴, translocation of threatened species, along with thriving citizen science programs, indicate that society values wildlife in ways that were not even conceived of in 1975 (Bonney et al., 2020; Moseby et al., 2011).

1.1.2 Are there conflicts between the interests or expectations of different stakeholders or community members regarding wildlife in Victoria? Please provide examples from your own experience.

Yes, there are conflicts between the interests of different stakeholders regarding wildlife in Victoria. Here, we highlight two examples.

1. Protection of introduced species

Currently, the Act protects "all kinds of deer, non-indigenous quail, pheasants, and partridges", and the protection of introduced species is in conflict with the protection of native wildlife. Moreover, protection of game species is at odds with the Government's objective to protect threatened species under the *Flora and Fauna Guarantee Act 1988* (FFG Act). The FFG Act's Threatening Processes Statement "Reduction in biodiversity of native vegetation by Sambar (*Cervus unicolor*)" explicitly acknowledges that deer threaten biodiversity.

The impacts of deer on native wildlife and habitats include (Commonwealth of Australia, 2021):

- Reducing the abundance and diversity of plant species;
- Destroying saplings;

² <https://www.bachelorsportal.com/study-options/271745150/biodiversity-conservation-australia.html>;
<https://www.mastersportal.com/study-options/271745150/biodiversity-conservation-australia.html>

³ <https://www.bachelorsportal.com/study-options/271745338/ecology-australia.html>

⁴ <https://www.theguardian.com/environment/2020/nov/18/predator-proof-fence-10km-barrier-to-be-built-across-wilsons-promontory-to-protect-native-wildlife>

- Spreading weeds;
- Competing with native herbivores (e.g. kangaroos and wallabies) for food, water and shelter;
- Contributing to erosion and reducing water quality;
- Altering soil properties and nutrient cycling;
- Hindering revegetation programs; and
- Carrying diseases and pathogens that may harm native species.

Deer numbers are growing, and the Victorian Government's *Victorian Deer Control Strategy* reports that Sambar deer are considered a threat to at least 13 threatened flora species and 12 threatened ecological communities. Further, it is estimated that more than a thousand species of plants and animals would benefit from deer control efforts across the state (Victorian State Government, 2020).

There is an urgent need for investment into solutions that effectively control populations of introduced species in the long term, and are aligned to shifting community expectations regarding animal welfare (Boulet et al., 2021). Potential solutions include immunocontraception and non-surgical sterilisation (reviewed by Asa and Moresco, 2019).

2. Lack of protections for native game species

Currently, the Act permits hunting of native ducks and quail, and this is in conflict with the protection of native wildlife. The 2020 Aerial Survey of Wetland Birds in Eastern Australia showed that total waterbird abundance, breeding species richness and breeding abundance decreased since 2019 and remained well below the long-term average (Porter et al., 2020). All game species' abundances were also well-below long-term averages. Four of the five species that together made up 92% of game species killed in 2020 (Pacific Black Duck, Australian Wood Duck, Grey Teal and Mountain Duck) continue to show long-term declines.

While there was a small increase in available habitat in the Murray Darling Basin from 2019 to 2020, the decline in game bird abundances has continued, indicating that populations are unable to rebound following increases in habitat extent. It is not clear whether this is an aberration or the beginning of a crisis for native duck populations. Aerial survey data indicate that it may not be possible to undertake sustainable shooting of native ducks given long term declines in the abundance of game species (Porter et al., 2020), and that shooting ducks may be in conflict with the purposes of the Act.

Option: Remove protections for introduced species.

Option: Ensure that the Act protects all native wildlife by removing the ability to declare native wildlife species 'unprotected'.

1.2.1 Are the current purposes of the Act satisfactory? What should the outcomes, objectives or purposes of the Act be? How should the objectives and purposes of the Act relate to the desired outcomes? How would they ensure desired outcomes are achieved?

The current purposes of the Act are unsatisfactory because 'protection' and 'conservation' can be in conflict with 'sustainable use'. In order to achieve wildlife conservation, the Act's primary purposes should be to protect and conserve native wildlife and wildlife habitat (see response to question 2.3.1), prevent extinction of species and reverse long-term declines of native wildlife.

1.3.2 Should the Act recognise the cultural significance of Country and wildlife to Traditional Owners and Aboriginal Victorians? Should the Act explicitly recognise the value of Indigenous Ecological Knowledge for the stewardship of Country and the conservation of wildlife?

The ESA supports changes to the Act in order to recognise the cultural significance of Country and wildlife to Traditional Owners and Aboriginal Victorians, and the value of Indigenous Ecological Knowledge for the stewardship of Country and wildlife conservation. Indigenous People should lead decision-making that affects management of Country, history and culture.

One might reasonably ask of the Act: does it consider and address the connection of plants and animals and their spirits to First Nations people collectively and individually? If not, the Act is not truly respectful of Traditional Owner rights and obligations and is hence, not consistent with the Victorian Charter of Human Rights and Responsibilities.

Empowering Indigenous management of Country is smart not only from an environmental perspective but also from an economic perspective. Analyses of the Social Return on Investment of the Indigenous Protected Area (IPA) and Working on Country (WoC) programs elsewhere in Australia show that these are delivering around three-fold investment returns (Social Ventures Australia, 2016).

***Option:** Ensure that the Act protects species of cultural significance to Traditional Owners*

***Option:** Ensure that the Act addresses the connection of plants and animals and their spirits to First Nations people collectively and individually.*

1.4.1 Should the Act prescribe a general duty of care related to wildlife conservation or biodiversity protection more broadly? Why or why not? How could it work in practice?

To improve wildlife protection and conservation, the Act should prescribe a general duty of care to fill gaps in legislation where no specific duties are imposed, and articulate standards and positive measures in the context of wildlife management. Appropriate supporting guidelines would help explain individuals' roles and responsibilities and clarify acceptable practices. A statutory duty of care that is owed to wildlife would encourage individuals to consider their impacts on wildlife and take reasonable measures to prevent or minimise harm to native animals.

1.5.2 Should any additional animal species or taxa (groups of species) be included in the definition of 'wildlife' or 'protected wildlife'? Should any species or taxa be excluded and therefore be exempt from some provisions in the Act?

All native animals (vertebrates and invertebrates) should be protected under the Act, which should seek to maintain viable populations of these native animals and to reverse the long-term declines of all native species, not just species that are listed as threatened.

1.5.3 Should 'game' animals be defined as wildlife in the Act or defined some other way or excluded from the Act entirely?

Non-native 'game' animal species should be defined as 'introduced species' to distinguish them from native wildlife. The purpose of the Act should be the protection and conservation of native wildlife, not introduced species (see response to question 1.1.2). Introduced species should be defined in the Act so that management actions targeting introduced species are evaluated in the context of native ecosystems and wildlife.

2.1.2 Should wildlife, flora and fauna generally be regulated by a more inclusive statute?

Improved wildlife protection and conservation could be achieved if wildlife, flora and fauna are regulated under a more inclusive statute. The current emphasis of the Act is on wildlife species as entities as opposed to their associations with habitat and their contribution to functioning ecosystems. Since the Act was passed in 1975, ecological science has illuminated the ways in which species contribute to ecological processes and how ecosystems 'function' (Fischer et al., 2006; Walker et al., 1999). Concepts such as the role of apex predators, keystone species and ecological connectivity have recently been found to be key drivers of ecosystems, and must be factored into their conservation and restoration (e.g. Geary et al., 2018). It is these key relationships that wildlife and biodiversity legislation must recognise, protect and restore.

By conserving wildlife in the context of habitat and interconnected ecosystems, we would ensure that future generations are able to enjoy the natural world and benefit from the ecosystem services it provides (i.e. clean water, clean air, erosion control, pollination, climate control). Ecosystem services are currently under pressure in Victoria, and far better recognition in public policy is needed to quantify the essential services that nature plays. There is already much scientific evidence that wildlife declines lead to declines in ecosystem services (e.g. Harris et al., 2018; Millenium Ecosystem Assessment, 2005). A more inclusive statute would help to protect wildlife and these critical ecosystem services.

2.3.1 In what ways does the Act succeed or fail in protecting and conserving wildlife habitat? Please provide examples from your own experience.

The Act is failing to protect and conserve wildlife habitat, as highlighted in the State of the Environment Report (Commissioner for Environmental Sustainability Victoria, 2018), which demonstrated significant declines in 21 out of 35 biodiversity indicators since the previous State of the Environment Report in 2013. Only one indicator - private land conservation - was trending up in the State, and the number of critically endangered and vulnerable vertebrate groups was increasing. Ongoing decline in Victoria's biodiversity is the result of threatening processes such as habitat loss, unmanaged or inadequately managed introduced plants and animals, inappropriate fire regimes, and climate change (Geary et al., 2021; Victorian State Government, 2017). The Act has not succeeded in halting these threatening processes, and as long as these processes continue, they will negatively impact wildlife habitat.



Figure 2. The Plains Wanderer (*Pedionomus torquatus*) is so unusual, it is not just the only species in its genus, but also the only species in its entire family. That makes it as unique as the Numbat or the Platypus. It is thought that there are <1000 left in the Endangered native grasslands of southern Australia.

In some parts of Victoria, the legacy of historic settlement and land-use is so profound that entire ecosystems are on the verge of global extinction. For example, the Temperate Native Grasslands of Victoria once spanned ~30% of the State and <5% remains. As a result, one of the world's most unique birds, the Plains Wanderer, is now critically endangered (Figure 2; Baker-Gabb et al., 2016). While broad-scale vegetation clearing was banned from Victoria in 1989, clearing of native habitat continues (at ~4,000 habitat hectares per year; Commissioner for Environmental Sustainability Victoria, 2018), with severe consequences for native wildlife.

Land-use intensification adds to the pressures placed on native wildlife. The global trend toward more intensive forms of agriculture is changing the nature of habitat in agricultural areas, with impacts on wildlife at the paddock- and the landscape-scale. For example, the rise of centre-pivot irrigation for horticulture since the 1990s further threatens the endangered southeastern Red-tailed Black Cockatoo, which has already lost at least 42% of its habitat. The isolated remnant Buloke trees that are the cockatoo's main food source have been removed from paddocks to make way for large sprinkler booms, reducing their availability by an average of 42% over 23 yrs (Maron and Fitzsimons, 2007).



Figure 3. The endangered southeastern Red-tailed Black Cockatoo has lost at least 42% of its habitat since the 1990s and only 1500 individuals remain in the wild. Image source: Red-tailed Black Cockatoo Recovery Program (redtail.com.au).

Importantly, climate change affects fire weather and is making fires worse across Australia, with severe consequences for wildlife; it is estimated that 3 billion animals were killed in Australia's 2019-2020 fires (van Eeden et al., 2020). The extreme 2019-2020 fire season was made at least 30% more likely by climate change (van Oldenborgh et al., 2021). Prolonged drought, linked to climate change, has increased the flammability of parts of the landscape that could previously be relied on to slow down or extinguish bushfires (Nolan et al., 2020). Further, severe weather events like the recent storms in Central Victoria⁵ are becoming more common, and have potential to cause extensive damage to keystone structures that provide critical resources for wildlife (Clarke et al., 2019; Tews et al., 2004). Measures to protect and conserve wildlife will be inadequate in the long term unless they are accompanied by effective climate change action at all levels of Government.

2.3.2 How should the Act provide for the protection and conservation of wildlife habitat?

The Act fails to protect and conserve wildlife habitat because it only regulates direct threats to wildlife, such as taking wildlife without an authorisation or licence, and it does not account for indirect threats such as the destruction of habitat. Better wildlife protection and conservation could be achieved if the Act's purpose was to protect and conserve wildlife habitat as well as wildlife *per se*.

Conservation reserves in Victoria total ~18% of the state (about 4.1 M hectares). However, there are still significant gaps to be filled to meet Australia's criteria for a comprehensive, adequate and representative (CAR) reserve system. According to the Victorian Government, ~2.1 M hectares of additional habitat protection is necessary to achieve this goal (Victorian State Government, 2017). Poor habitat representation of natural ecosystems in the reserve network is concentrated in South West Victoria, the Central Victorian Uplands and the Gippsland Plains.

While the Act has several tools that indirectly provide habitat protection on public land (e.g. creation of state wildlife reserves and nature reserves), it does not specify the obligations of landholders relating to habitat on private land. The identification of feasible, efficient and practical ways of addressing processes that threaten wildlife and wildlife habitat on public and private land should be a key objective of the Act. Targets should be SMART (specific, measurable, agreed upon, realistic and time-based).

To reverse wildlife declines, restoring native vegetation and building connections between remaining patches of vegetation must also be encouraged in production landscapes. *Biolinks* is an existing Government strategy, along with *Habitat 141* and other visionary projects, that can address the considerable challenge posed for native species in fragmented landscapes by climate change, and sudden perturbations like mega-fires. *Biolinks* achieved policy recognition by the Victorian Government (in 2009) but has since lapsed. Enhancing bio-regional connectivity in this way is a basic building block of a biodiversity-conscious adaptive response to climate change.

Option: *Ensure the Act provides clear and unambiguous protection of wildlife habitat.*

⁵ <https://www.abc.net.au/news/2021-06-17/tree-storm-damage-wind-event/100216056>

Administration of the Act

3.4.1 Should the Act simplify and clarify the provisions relating to the various licences, permits and authorities? Is there scope to reduce regulatory burden without undermining the intended outcomes of the Act?

The Act should clarify provisions relating to licences, permits and authorities. Currently, the provisions lack clarity and accountability and are not informed by a statement of objectives. Moreover, the Act does not provide clear, consistent decision frameworks for refusing, cancelling or suspending different permissions. For example, the onus is on the DELWP Secretary to prove a person is not 'fit and proper' to hold a wildlife licence, rather than the licence applicant. Crucially, the Act contains no provisions that require the holder of an authorisation to report on the use and outcomes of that authorisation, so it is not possible to assess the consequences for wildlife populations (see response to question 4.1.1).

4.1.1 Does the Act require an adequate degree of transparency about, and accountability for, decision making on matters relating to wildlife? If not, how could this be improved? For example, which activities/decisions/criteria should be more transparent? Which parties should be more accountable and for what?

The Act does not require an adequate degree of transparency about, and accountability for, decision making on matters relating to wildlife. In 2020, DELWP issued 3,441 Authority To Control Wildlife (ATCW) authorisations in relation to native animals in Victoria⁶, allowing destruction, disturbance or harm to 185,286 animals including 6,604 Grey-headed Flying Foxes which are listed as threatened under the *Environment Protection and Biodiversity Conservation Act*. In 2020, authorisations in relation to 11,399 Grey-headed Flying Foxes were issued, and other authorisations applied to 127,976 native animals from 56 species, including Eastern Long-necked Turtle, Swamp Wallaby and Satin Bowerbird⁷. The bases for decisions to issue ATCW authorisations are not publicly available.

The impacts of the ATCW system on wildlife populations are unknown because there is no reporting on the effects of activities, including basic information about whether the control was carried out by disturbance, taking or killing. The ATCW system is not subject to independent auditing or review, and there is no publicly available information about monitoring of compliance or enforcement action.

Reporting of the impacts of authorities on wildlife is common in contemporary law and is essential for allowing scrutiny, assessing impacts, and ensuring that wildlife are conserved. Ultimately, transparent monitoring and reporting will lead to better outcomes for Victoria's wildlife in the face of the increasing pressures of population growth and a changing climate. In particular, effective ecological monitoring is a critical part of improving resilience, adapting to change and predicting future risk.

Currently, the Act is regulated through DELWP's Office of the Conservation Regulator, which is not an independent statutory entity. Reform of the Act should include establishment of an independent statutory entity responsible for administration, delivery and enforcement.

⁶ https://www.vic.gov.au/sites/default/files/2021-06/ATCW-Data_annual-data-2009-2019.pdf

⁷ <https://www.vic.gov.au/sites/default/files/2021-06/ATCW%20Data%20for%202020.pdf>

Option: Strengthen the administration, delivery and enforcement of the Act by establishing an independent statutory regulator which is guaranteed funding and a mandate for transparent and timely monitoring and public reporting.

Option: Reform the Authority to Control Wildlife system and administer, deliver and enforce it through the new independent statutory regulator.

4.2.1 Should the Act include provisions that require and enable establishment of a scientific advisory committee or advisory panels to provide expert guidance to key decision makers such as the Minister, the Secretary or the regulator on specific matters relating to wildlife? Why or why not? What other approaches are available?

Yes, the Act should include provisions that require establishment of a scientific advisory committee to provide expert guidance to key decision makers on specific matters relating to wildlife. A scientific advisory committee would support evidence-based decision making, and ensure decisions are based on up-to-date information. Matters such as advisory committee membership, method of appointment, qualifications and expertise, and role and functions should be provided explicitly, as is the case in section 8 of the FFG Act.

Option: The Act should ensure ongoing and scientifically-robust monitoring of native wildlife populations and habitats, with priority given to: threatened species, species likely to be in decline, keystone species and species subject to control authorisations.

Option: Include a provision in the Act that formally establishes a scientific advisory committee to ensure up-to-date and evidence-based decision making.

Conclusion

Victoria is in the midst of a biodiversity crisis and its wildlife are facing a suite of contemporary pressures. The Wildlife Act is failing to protect and conserve native wildlife and prevent species extinction; it manages conflict among stakeholders inadequately, its administrative mechanisms are not fit for purpose, and it is not responsive to current rapid rates of environmental change. There is a compelling case for urgent modernisation of Victoria's wildlife protection laws, and the recommendations highlighted throughout this document point to solutions to facilitate wildlife protection, conservation and recovery into the future.

For further information

The ESA welcomes the opportunity to provide further information to this review or to discuss our submission in more detail. We can be contacted at:

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Submission prepared on behalf of the ESA by its Policy Working Group and approved by the President 29 June 2021.

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