



Select Committee on Victoria's Recreational Native Bird Hunting Arrangements

Victoria's recreational native bird hunting arrangements

Inquiry

August 2023

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About the Committee

Functions

The Committee will examine and report on Victoria's recreational native bird hunting arrangements. This includes the operation of annual bird hunting seasons, arrangements in other jurisdictions, environmental sustainability and impacts, and social and economic impacts.

The Committee consists of members of the Legislative Council from the government, opposition, and other parties.

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Terms of reference

Inquiry into Victoria’s recreational native bird hunting arrangements

On 9 March 2023, the Legislative Council agreed to the following motion:

A select committee of nine members be established to inquire into, consider and report by 31 August 2023 on Victoria’s recreational native bird hunting arrangements, including but not limited to —

- (a) the operation of annual native bird hunting seasons;
- (b) arrangements in other Australian jurisdictions;
- (c) their environmental sustainability and impact on amenity;
- (d) their social and economic impact.

Chair's foreword

I am pleased to present the final report of the Inquiry into Victoria's recreational native bird hunting arrangements.

Many Victorians care deeply about recreational native bird hunting. The depth of these feelings were clear to the Committee during our extensive deliberations, both through public hearings, reading submissions, and during our site visits to engage with hunters, animal welfare groups, and local communities.

Passionate interest in matters of public policy is a healthy sign for our democracy, as is being able to have that debate with respect and understanding of different points of view. The Legislative Council voted to establish a select committee to investigate this issue and provide a public consultation process. This report is a culmination over an extensive amount of research and evidence provided. Over 10,000 submissions were sent by members of the public and organisations wanting to have their say on this issue, making it the most submissions accepted by a Victorian parliamentary committee by a significant margin. Supporters and opponents of native bird hunt presented heartfelt arguments based on their personal experiences in their submissions and evidence given at public hearings.

The Committee's role was to review the evidence separate from the passion, and provide a set of recommendations for action on a topic that has been the subject of controversy for decades. Given this context not everyone on the Committee was going to agree on the final recommendations, just as sections of our community does not share a unanimity of views on the topic. To expect anything less would be to diminish these genuinely and deeply held views.

The Committee has made a recommendation to end recreational native bird hunting on all Victorian public and private land as of 2024. This would bring Victoria in line with many other Australian jurisdictions, including those in throughout the eastern seaboard. The Committee's rationale is driven by the considerable environmental evidence of long-term decline in native bird populations, and a worsening outlook as our climate continues to change. The Committee was also acutely aware of the animal welfare issues associated with native bird hunting, as well as the amenity loss of large areas of public land to the overwhelming majority of the Victorian public during the hunting season.

Victoria's native fauna is unique and should be protected. Native bird populations across eastern Australia have been in constant and consistent decline over the last 40 years. This has been caused by significant habitat loss driven through mismanagement of water resources, the impacts of climate change, repeated drought and fluctuating weather cycles. Although Victoria has experienced a significant increase in water surface and fuller wetlands in the most recent La Niña cycle, we have not experienced the same rebound in bird populations. This is an ongoing trend.

Bird hunting also involves inherent wounding rates that cannot be completely avoided, regardless of hunter skill and best intentions. This is unacceptable for bird populations that are already under significant pressure. Threatened species are also routinely killed and although this may be inadvertent it is still unacceptable to allow this to occur.

There is a genuine need to allow for control of ducks that are considered pests, such as minimising destruction of local crops. However, the experience of other jurisdictions shows this can be managed through the existing Authority to Control Wildlife process, managed by the Conservation Regulator. This will also allow for strict regulation and monitoring of pest control, and would mirror arrangements in New South Wales.

It was also extremely upsetting to see evidence of Aboriginal cultural heritage sites that were damaged or destroyed by game hunters. Just as disheartening was an apparent lack of a coherent process for monitoring this, reporting and responding to these issues. More must be done.

Victoria invests a significant amount of public funding into monitoring of bird populations and for compliance of bird hunting. However the sheer geographical size of public land available for hunting makes this a near on impossible task for the Game Management Authority. The sheer size and geographic diversity of locations make it impossible for the agency to enforce the regulations. Significant investment of additional resources would be required by either licence holders or taxpayers should native bird hunting continue.

Duck and quail hunters are subject to detailed regulations and it was clear to the Committee that the vast majority adhere to the rules. However, consistent evidence received by the Committee illustrates that there are a minority who do not adhere to bag limits, season rules and animal welfare guidelines. This continued in 2023 which was arguably the most scrutinised season on record.

There is also the concern about equity of access to state game reserves during the hunting season. As noted above, these reserves encompass a significant landmass and no other outdoor activity restricts access to a particular class user to the extent of bird hunting. The Committee has recommended that native bird hunting game reserves could be converted for other outdoor recreational uses to allow greater public access to this land.

Victorians deserve to be able to access the outdoors for recreational activity. The Government should do more to support these important pursuits, and value those who choose to enjoy the outdoors.

I would like to extend my thanks to everyone who took the time to make a submission, to all witnesses who attended public hearings to provided evidence and other stakeholders who gave up their time to escort the Committee on site visits. Your contribution has greatly helped the Committee in its deliberations and in formulating the report's final findings and recommendations.

I particularly want to thank those individual hunters and animal welfare activists who we encountered during our site visits, as a Committee to the Connewarre Wetlands near Geelong, at our site visit and hearings in Sale, and at a personal level during my private trip to Kerang and surrounding wetlands at the end of the 2023 duck season. All were genuine in their positions and advocated clearly and calmly for their point of view.

I thank my Committee colleagues for their participation in the Inquiry and assistance in formulating the final report. I would like to thank the Committee secretariat managed by Matt Newington, the research team Kieran Crown and Imran Ahmed, and with administrative and other assistance provided by Julie Barnes, Daphne Papaioannou, Sylvette Bassey, Jo Clifford and Adam Leigh. I would also like to note additional assistance provided by other staff in the Committees office.

I would especially like to thank the Committee's Deputy Chair, Michael Galea MLC, for his stewardship of the Committee's final deliberations during my absence on bereavement leave.

I commend this report to the House.

A handwritten signature in black ink, appearing to read 'Ryan Batchelor', with a large, stylized loop at the end.

Ryan Batchelor MLC

**Chair, Select Committee on Victoria's
Recreational Native Bird Hunting Arrangements**

Findings and recommendations

1 Overview and key recommendations

RECOMMENDATION 1: That the Victorian Government ends the annual recreational native bird hunting season opening on all public and private land from 2024.

1

RECOMMENDATION 2: That the Victorian Government retains existing exemptions to hunt and control native birds under the Authority to Control Wildlife framework to control bird populations impacting on agricultural and other land.

1

RECOMMENDATION 3: That Traditional Owner hunting rights are retained under existing legislation.

1

RECOMMENDATION 4: That State Game Reserves used for duck hunting be converted into Outdoor Recreation Reserves to provide greater access to outdoor recreation for all Victorians, with appropriate investment in camping, boating, and related infrastructure.

1

RECOMMENDATION 5: That the Victorian Government provides additional resources to the Department of Energy, Environment and Climate Action and Parks Victoria to better control non-native invasive species.

1

RECOMMENDATION 6: That the Victorian Government amends the Victorian wildlife framework to discontinue the use of lead shot for all types of bird hunting and undertakes further investigation into plastic pollution and other forms of wetland degradation as a result of hunting.

1

RECOMMENDATION 7: That the Victorian Government reviews the process to report damage or destruction of Aboriginal cultural heritage and introduces additional protections for these sites including appropriate signposting and a review of the current penalties for cultural destruction.

1

RECOMMENDATION 8: That the Victorian Government requires hunters participate in an Aboriginal cultural heritage awareness education program.

1

2 Native bird hunting in Victoria

FINDING 1: Up to 3.5 million hectares of public land is available for duck hunting, for a limited season, of which 285,000 hectares are primary hunting locations near waterways, including 75,000 hectares of State Game Reserves.

26

FINDING 2: Publicly available map data on hunting areas is difficult to generate and available data is not at a consistent standard.

26

FINDING 3: If hunting is to occur in public places, it should be in declared areas rather than allowed in public land by default. This would assist members of the public to know where hunting can occur, and assist in effective regulation by the Game Management Authority and Victoria Police.

26

FINDING 4: The Victorian Government receives about \$4 million per annum from game licence revenue plus about another \$4.4 million in gun licence revenue from 58,000 licenced hunters.

28

3 Regulation of recreational native bird hunting in Victoria

FINDING 5: A duck hunting season lasts no more than 12 weeks between March and June and avoids the season of breeding and moulting, and typically lasts about 10 weeks, but was only 5 weeks in 2023.

48

4 Environmental and economic issues

FINDING 6: The Victorian Government should ensure that there is adequate funding and support to enable increased conservation and restoration projects of Victorian wetlands by First Nations, community (including hunting groups) and environmental organisations.

79

FINDING 7: There is little data on the direct economic impacts of native bird hunting in Victoria. Total figures provided to the Committee had a significant difference in their range and had inconsistent methodology.

83

FINDING 8: Estimates by the Parliamentary Budget Office found approximately 72% of net economic impact and 69% net employment impact of native bird hunting is received by regional Victoria.

83

5 Cultural and social impacts of native bird hunting

FINDING 9: The Game Management Authority is the appropriate authority to educate hunters to identify Aboriginal cultural heritage sites and ensure they are not disturbed in the course of recreational hunting. In addition, hunters should also be made aware of the reporting arrangements for the damage or destruction of Aboriginal cultural heritage sites on state game reserves.

99

6 Compliance with recreational native bird hunting regulations and guidelines

FINDING 10: The Game Management Authority has made significant progress to implement changes based on the findings of the Pegasus report in 2017. However, there are inherent difficulties with the Game Management Authority's legislated compliance requirements as identified in the report, which in the Committee's view cannot be rectified without significant investment in additional resourcing.

116

FINDING 11: The majority of the Game Management Authority's compliance and enforcement resources are deployed ensuring public safety at a limited number of locations where hunters and rescuers are both in attendance. This comes at the expense of the Game Management Authority's other compliance priorities including of ensuring sustainable hunting, the humane treatment of game animals and minimising impacts on non-game and protected species.

125

FINDING 12: Victoria's land available for recreational native bird hunting is geographically vast and dispersed. This makes it improbable for the Game Management Authority to enforce compliance with hunting regulations with the resources they have.

127

7 Hunter and rescuer compliance with regulations

FINDING 13: There is conflicting and incomplete evidence on the wounding rate of bird due to recreational hunting. Estimates provided to the Committee ranged between 6% and 40% of ducks are wounded each year. A wounding rate at the lowest end of this range (6%) would have resulted in the wounding of 15,700 ducks during the 2022 season.

137

FINDING 14: Thousands of ducks would be wounded in Victoria each duck hunting season, even if measures outlined in the *Draft waterfowl wounding reduction action plan 2022–2026* were implemented. The Committee considers this ongoing level of wounding to be an unacceptable animal welfare outcome.

141

FINDING 15: Knowledge and proficiency testing, once-off or otherwise, for both prospective and existing game licence holders would help to reduce the rates of wounding during the recreational native bird hunting season.

141

FINDING 16: Although windmilling as a dispatch method is not recommended by the Game Management Authority, there is evidence of its continued use amongst native bird hunters.

147

FINDING 17: Rescuers put themselves and others in danger if they break the law to enter specified hunting areas during the recreational native bird hunting season.

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What happens next?

There are several stages to a parliamentary inquiry.

The Committee conducts the Inquiry

This report on the Inquiry into Victoria's recreational native bird hunting arrangements is the result of extensive research and consultation by the Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

The Committee received written submissions, spoke with people at public hearings, reviewed research evidence and deliberated over a number of meetings. Experts, government representatives and individuals expressed their views directly to us as Members of Parliament.

A Parliamentary Committee is not part of the Government. The Committee is a group of members of different political parties (including independent members). Parliament has asked us to look closely at an issue and report back. This process helps Parliament do its work by encouraging public debate and involvement in issues.

You can learn more about the Committee's work at:

<https://new.parliament.vic.gov.au/get-involved/committees/select-committee-on-victorias-recreational-native-bird-hunting-arrangements>.

The report is presented to Parliament

This report was presented to Parliament and can be found at:

<https://new.parliament.vic.gov.au/get-involved/inquiries/nativebirdhunting/reports>.

A response from the Government

The Government has six months to respond in writing to any recommendations made in this report.

The response is public and put on the inquiry page of Parliament's website when it is received at: <https://new.parliament.vic.gov.au/get-involved/inquiries/nativebirdhunting/reports>.

In its response, the Government indicates whether it supports the Committee's recommendations. It can also outline actions it may take.

Chapter 1

Overview and key recommendations

1.1 Key findings and recommendations

RECOMMENDATION 1: That the Victorian Government ends the annual recreational native bird hunting season opening on all public and private land from 2024.

RECOMMENDATION 2: That the Victorian Government retains existing exemptions to hunt and control native birds under the Authority to Control Wildlife framework to control bird populations impacting on agricultural and other land.

RECOMMENDATION 3: That Traditional Owner hunting rights are retained under existing legislation.

RECOMMENDATION 4: That State Game Reserves used for duck hunting be converted into Outdoor Recreation Reserves to provide greater access to outdoor recreation for all Victorians, with appropriate investment in camping, boating, and related infrastructure.

RECOMMENDATION 5: That the Victorian Government provides additional resources to the Department of Energy, Environment and Climate Action and Parks Victoria to better control non-native invasive species.

RECOMMENDATION 6: That the Victorian Government amends the Victorian wildlife framework to discontinue the use of lead shot for all types of bird hunting and undertakes further investigation into plastic pollution and other forms of wetland degradation as a result of hunting.

RECOMMENDATION 7: That the Victorian Government reviews the process to report damage or destruction of Aboriginal cultural heritage and introduces additional protections for these sites including appropriate signposting and a review of the current penalties for cultural destruction.

RECOMMENDATION 8: That the Victorian Government requires hunters participate in an Aboriginal cultural heritage awareness education program.

On consideration of all evidence received during the Inquiry, the Committee recommends that the Victorian Government end recreational native bird hunting on all public and private land from 2024.

The Committee recommends continuing to allow existing exemptions for the management of native bird populations in agricultural and other settings under an authority to control wildlife permit. Currently the authorities permit control of native bird populations to assist farmers and other agricultural producers whose crops and farming practices are adversely impacted by native birds. This is a similar approach to that adopted in New South Wales.

The hunting rights of Traditional Owners should be retained through existing legislative arrangements.

The Committee's underlying rationale for this recommendation includes the impacts of native bird hunting from:

- the existing pressure on native bird population decline over the long term caused primarily by loss of habitat across the Murray Darling basin and exacerbated by climate change, particularly as Australia approaches another an El Niño cycle
- animal welfare concerns regarding wounding rates, which cannot be completely avoided
- the unacceptable wounding and death rate of threatened bird species, whether accidental or intentional
- the amount of public land that excludes non-hunters during the season—which is up to 3.5 million hectares in total—and the reduction in local amenity associated with hunting
- the inability to enforce an appropriate level of compliance due to the large area covered by native bird hunting and a lack of knowledge of when and where hunting is occurring.

There is clearly a need to improve the protection of sites of Aboriginal cultural heritage in State Game Reserves. The committee was extremely concerned about evidence of the destruction of sites of cultural significance, and disappointed at the lack of clarity from departments and agencies about who should be responsible for management and enforcement protection. In short, it should be everyone's responsibility.

The Committee has also made a series of findings that highlight deficiencies in the current native bird hunting regulatory arrangements. Notwithstanding its recommendation to end native bird hunting in Victoria, the Committee has made a series of findings on issues with current native bird hunting practices. These include:

- the need to introduce a form of hunter knowledge and proficiency testing alongside the existing Waterfowl Identification Test, particularly to reduce instances of wounding
- re-testing of hunter knowledge and waterfowl identification should occur on a regular basis

- lead shot for quail should no longer be permitted
- public land made available for hunting should be declared, rather than made available by default
- reliable map must be data available to the general public on where hunting occurs
- exclusions zones for hunting on public land near residential developments should be increased.

If hunting were to continue, the Committee believes these issues need to be addressed. The findings and further rationale are discussed in detail throughout the report.

1.1.1 The Committee's rationale

The Committee is concerned at the ongoing decline in native bird populations across Australia. The Eastern Australian Waterbird Survey finds that six of eight native game bird species show a significant long-term decline in population.

This decline is being driven largely by habitat loss. Many of the wetlands that support native bird abundance are not located in Victoria. Therefore the water management practices in the Murray Darling Basin have a considerable impact on game bird populations in this state.

Evidence also indicates that despite a couple of years of good rainfall reviving many waterways, native bird populations have not yet increased in line with restoration of these habitats.

There was clear evidence of a 'boom/bust' cycle for bird populations, but that every recovery is more subdued. Native bird populations were lower in 2022 than in 2006 and 2007, during the millennium drought when the Victorian hunting seasons were cancelled.

Given the ongoing effects of climate change on the Australian environment and the upcoming El Niño cycle, this is particularly concerning and will only likely worsen.

There is insufficient evidence to accurately state the real economic impact of native bird hunting to the Victorian economy. However given the scale and range of estimates, it is clear that ending native bird hunting would have a negligible economic impact on Victoria.

The Committee acknowledges the significant historical and family connection that many native bird hunters have with hunting as a recreational activity. Ending these practices will be difficult for many of the 10,000 to 11,000 Victorians who participate in duck and quail hunting each year.

Native bird hunting participation is declining across the population, with less than 0.4% of Victorians holding a bird hunting licence, and less than two thirds of these licence holders (0.26% of total population) participating in hunting in any year. In contrast, popularity of deer hunting is growing rapidly.

Outdoor recreation is important for many Victorians, and the Committee believes that the State Government could do more to support outdoor recreation. In particular by converting the existing State Game Reserves used for duck hunting to outdoor recreation reserves, with a priority on recreational activities at these sites. This conversion of land use should be subject to an assessment for Aboriginal cultural significance and for environmental significance, especially on Ramsar listed wetlands.

These game reserves and waterways are currently subject to regulations that exclude non-game licence holders from wide areas during hunting season, up to three months of the year. This excludes 99% of Victorians from using them during this time. Changing the land use arrangements in this way would allow more Victorians to participate in outdoor recreation activities.

The Game Management Authority faces an almost insurmountable task in effectively regulating native bird hunting, given the geographic spread of hunting activity, and the environmental challenges of ensuring hunter compliance on waterways often replete with camouflaging vegetation.

Much of the Game Management Authority's efforts are focused on personal safety given the presence of animal welfare groups at game reserves during hunting season. This distracts the agency from their focus on hunter compliance.

The Game Management Authority has a chequered past as an effective regulator and the Game Management Authority should be congratulated for these efforts. However if the Committee's recommendations are not adopted and native bird hunting is to continue much more needs to be done. Either taxpayers or game licence holders will be required to fund considerably increased resources to effectively regulate native bird hunting into the future.

The Committee has also taken into account the inherent uncertainty surrounding the Minister's declaration of season opening each year. This causes issues for hunters in planning leave from work to attend season, as well as purchase of supplies and other hunting equipment.

In making the findings and recommendations, the Committee has considered the evidence provided by:

- 10,402 written submissions, the overwhelming majority of which were from individuals expressing their personal views and experiences
- witnesses at 28 sessions of public hearings
- supplementary material provided by submitters and public hearing witnesses
- discussions with stakeholders
- additional research.

The Committee has considered this evidence base as a whole when formulating the report. It is up to the Committee itself what weight to give to specific evidence.

The Committee also appreciates there is considerable public sentiment against native bird hunting as publicised in a number of survey findings throughout Australia over the years.

1.2 Summary of submissions received and key themes

Parliamentary committees consider the views of submissions as part of the broader evidence base received during an inquiry. It is up to committees themselves to determine the weight to apply to submissions individually and as whole as part of the broader evidence.

The Committee accepted 10,402 submissions to the Inquiry, the overwhelming majority of which were from individuals in a personal capacity. This was by far the highest number of submissions ever received by a Victorian Parliamentary Committee. This reflects the significantly polarised sentiment between those who support and those who oppose native bird hunting.

From these submissions the Committee identified key stakeholders and received evidence from these individuals and organisations at public hearings. The Committee also heard from key government agencies and departments who provided evidence relating to the themes.

The Committee's findings and recommendations in this inquiry are based on consideration of all issues and evidence provided and its decisions are not based on the number of submissions received in favour or opposing native bird hunting.

Submissions were very polarised and almost every submitter expressed a firm view either in support of retaining or in favour of ending native bird hunting. However, the Committee has not reported a specific number or percentage of submissions that were in support or opposed native bird hunting. Submitters were not expressly asked their view in support or opposing native bird hunting through survey or similar means.

In addition, parliamentary inquiry findings and recommendations are based on analysis of evidence and are not determined on proportions or numbers of stakeholders in support of a certain view of an issue.

Several key stakeholder organisations promoted campaigns and urged their members and followers to provide submissions to the Inquiry. This is a normal part of the democratic process and reflects the considerable organisational and political interest in the Inquiry.

The submissions were received primarily through the Committee's website form, but also comprised submissions emailed directly and those sent by post.

Appendix A provides a further summary of submissions and contains a list of all stakeholders who made a public submission.

The Committee extends its thanks to all individuals and organisation who took the time to make a submission.

1.3 Sentiment of debate

Native bird hunting is a highly emotive, polarising and political topic. There is a significant amount of existing discourse on public record, including in the media and letters to the editor. There have also been several lawsuits involving hunters, rescuers and protesters. The Committee is aware of the sentiment between various pro- and anti-hunting groups, particularly in online forums.

Overall, witnesses and other members of the gallery remained respectful of proceedings during public hearings. This is an important part of the inquiry process as all stakeholders are entitled to have their views heard. The Committee commends the conduct of all who gave evidence at hearings and others in attendance.

The Committee received correspondence from stakeholders alleging that inaccurate and misleading evidence had been provided in submissions and public hearings. These were noted and have been considered in the Committee's analysis of evidence provided. The Committee reminds all participants that deliberately providing false or misleading evidence to an inquiry may constitute a contempt of Parliament.

The Committee also received evidence and allegations of antisocial, harassing and even violent behaviour, from both those in support and those opposing native bird hunting. The Committee strongly condemns this behaviour but highlights that this inquiry is not the appropriate forum to investigate such claims.

1.4 Submissions supporting native bird hunting arrangements

The overwhelming majority of submissions in support of native bird hunting were from people and organisations who were hunters themselves or had a direct family connection to hunting. Most of them spoke of their personal family and traditional connection of hunting to them.

Other submitters highlighted their personal investment into bird hunting through buying hunting supplies and other camping gear, which they believed made a significant contribution to local and the Victorian economies.

Some submitters highlighted that no Australian jurisdiction has completely implemented a ban on native bird hunting. Although Western Australia, Queensland and New South Wales ended recreational seasons, bird hunting can take place in certain circumstances, such as on private property as part of agricultural pest control programs.¹

Stakeholders who supported retaining native bird hunting highlighted how hunting is a natural activity practiced by humans for thousands of years. They spoke of the enjoyment they received in harvesting their own food from local free range organic birds.

¹ Field & Game Australia, *Submission 1,872*, p. 35.

1.4.1 Family, cultural and historical significance of hunting

I was fortunate to be introduced to duck hunting by my father at the age of 10. For the last 15 years I have been proud to enjoy the recreational pursuit, and the company that comes with it. Fellow duck hunters have always been welcoming, and keen to share stories, knowledge and occasionally some of their harvest around a camp fire, creating some of my favorite memories with my father with hopefully many more to come.

When first introduced to this long-standing tradition, the chore of plucking and cleaning each game bird was somewhat off-putting. It's through this process however that I've earned a deep respect and understanding of where our food comes from, and what work needs to be done before each meal can be served on a plate. In a community where most of our food comes ready to eat from a supermarket shelf, it's extremely important to have this respect for the animals that exist to sustain us, and the vast nature that is present just past our back-yard. My appreciation continues to grow with more time spent out in the swamps and lakes of Victoria, and it's incredibly relaxing to take a break from the busy and connected world.

Anthony Gommers, *Submission 9,999*.

The majority of submitters who supported native bird hunting detailed the strong traditional and family connection they had to the activity. The Committee received many accounts from submitters detailing of the memories they had as children going hunting with their family and how they wanted to continue to do so.

Hunting is labeled as a sport, yet to me it's a lifestyle. It's how I de-stress and where I meditate on how lucky we are to be free in this beautiful country Australia. Hunting is how I stay physically fit. It's my main motivation to exercise. Hunting is my culture. My family are 6th generation Farmers, and to cease duck hunting would impact our farms economy, ecosystem and livelihood severely, not to mention a decline in mental health wellbeing.

Jo Howes, *Submission 6,969*.

Others described how they had been welcomed into the hunter and conservationist community and the sense of inclusion it gave to them.

In 2016, I was honoured to be asked to be an Ambassador for Field & Game Australia in recognition of my contributions to Hunting and Conservation. As a female, I thought this was a fantastic opportunity to promote women in hunting, and to show that hunters are not 'rednecks', as has been made out by the anti-duck hunting groups. My involvement as an Ambassador has been voluntary, and has also encouraged other women to become involved in the conservation and rehabilitation of wetlands, and also duck hunting.

Deborah Meester, *Submission 5,012*.

Some First Nations submitters described the cultural significance native bird hunting had to them, noting that hunting in Australia dated back for at least 35,000 years.

I am a proud Wurundjeri Man and have lived most of my life on Dja Dja Wurrung country. I am a Koori Court Elder and although I will retire soon, I currently serve my local community as the Justice Worker at the Bendigo and District Aboriginal Cooperative. Hunting and eating native fauna is a major part of my culture (dating back 60,000 plus years), as is sharing native game food with Community.

Mark Little, *Submission 665*.

My people have been harvesting birds for 1000's of years. It's part of my culture.

It brings friends and family closer together.

It builds strong relationships with all people in Australia regardless of race.

Dr Nathan Vale, *Submission 5,340*.

Duck hunting is important to water ways cultural connections, where Aboriginal people prior to non Aboriginal settlement where protecting and rehabilitating waterways and wetlands on country to maintain food sources that sustained and provided for Aboriginal people and families. Evidence of Aboriginal occupation is at each waterway and wetlands showcasing cultural practices that have existed for 65,000 years.

...

I am an Aboriginal woman with close cultural connections to Victorian traditional areas of country. It is vitally important to me to learn and maintain for future generations the cultural practices, including the women's business practices of using duck feathers, to strengthen my connection to land and water.

Name withheld, *Submission 10,394*.

1.4.2 Outdoor recreational activity

Many submitters in support of native bird hunting highlighted the positive impact hunting as an outdoor activity had on their physical and mental health. They often described it as a 'release' from high-stress work environments.

Others described the natural beauty such as sunrises and sunsets they had witnessed at wetlands whilst hunting.

[Native bird hunting] is a popular and lawful pursuit that promotes mental and physical health benefits for participants. Hunting provides an opportunity for some to escape the hustle and bustle of city life and connect with nature. The serene and peaceful environment is a stress-relieving atmosphere that many people find soothing. It allows for an opportunity to decompress from everyday stressors and reset the mind. Hunting also encourages physical fitness, as it requires stamina and strength to trek through wetlands and carry equipment.

Nick Zema, *Submission 9,712*.

Many submitters who were native bird hunters considered the term 'sport' as misleading.

Last year I had a string of Heart attacks, my doctors told me I needed to become more active and find ways to remove excess stress from my life. Since then, I have increased my hunting activity 70% and my health has improved immensely. Looking back at hunting trips with my father and brother this would be one of the few times that they would openly talk about problems they were having in their life; this still happens with my brother and friend's today.

Craig Stoddart, *Submission 10,122*.

1.4.3 Environmental and conservation

We are passionate about wetland management; we are also advocating for water allocations in certain wetlands where we believe the benefits to all native bird species to be enormous. Further evidence of our passion include; a very successful bird box and hen house, construction, and installation program this season. In conjunction with Shepparton Field and Game (SFG), [Rushford Field and Game] removed 20 old bird boxes and replaced with 50 new bird boxes. The RFG and SFG also constructed and installed 50 hen houses. The RFG have documented over 400 successful native bird hatchlings from the bird boxes and hen houses that were installed. This does not include the SFG hatchings. On many occasions the hen houses and bird boxes were utilised by separate breeding pairs.

Rushford Field and Game, *Submission 1,622*.

Many stakeholders described the conservation and wetlands restoration work undertaken and funded by hunting conservation groups, most of whom were volunteers. They noted that the projects are funded by volunteers and other donations.

Key examples of key environmental works undertaken by volunteers included:

- wetlands conservation
- installation of nesting boxes
- feral species pest management programs
- weed species removal
- tree planting.

Duck hunters and hunters in general are conservationists, they have a vested interest in preserving wild places to the benefit of all wildlife and the population in general.

Duck hunters have pioneered nesting boxes for a variety of duck species and thousands of those boxes have been erected and serviced throughout the state by hunter volunteers.

Duck hunters have put time, money, equipment and effort into water management, funding water control structures, monitoring water levels, access roads, boat ramps,

tree planting, feral animal eradication and the multitude of issues that go hand in hand with land management.

Duck hunters have purchased and rehabilitated wetlands again for the benefit of all wildlife and the rest of the population, a prime example of this is the Heart Wetland project near Sale.

The most important role that duck hunters play is that of guardian, they are the people who frequent the wetlands, they are often the first to report unwanted occurrences and changes in the environment, they fight for the preservation of wetlands.

Zorra Parmigiani, Submission 9,676.

In many areas, conservation work has revitalised formerly arid land into lively wetlands and attracted additional species to the area. Some wetlands designated as state game reserves have been listed as a Wetland of International Importance under the Ramsar convention.

The Committee saw this significant work firsthand during site visits to Lake Connewarre and Heart Morass State Game Reserves.

Some submitters described how that their participation in native bird hunting led them into conservation work through a greater understanding and respect for the environment. This was often conducted as projects with their local Field & Game branch.

Others noted the impact of hunting native birds when the native birds can be pests responsible for destruction of farming crops. They highlighted current practice in New South Wales where although native bird game hunting has come to an end, residents can apply for licences to shoot ducks to manage pest populations on private land.

Many stakeholders were concerned that conservation work would cease if native bird hunting were to end, since there would no longer be a reason for many hunter-conservationists to be involved if they couldn't use the land themselves for hunting. They believed this would lead to wetlands no longer being maintained and ultimately resulting in habitat loss for waterbirds and other fauna.

1.4.4 Economic contribution of hunting to the economy

We don't hunt because it's cheap. We stop in local towns and always spend a significant amount of money every time we go hunting. The effort to get the gear required, is immense and never ending. For example, we spend money on: decoys, camouflage clothing, duck callers, waders, ammunition vest, ammunition belt, duck hangers, sled, dingy, gun dog, all the camping equipment and the four wheel drive equipment, plus the guns, plus the ammunition, plus the training, plus the petrol, and the list goes on. We are constantly updating our equipment and spending money and time on our activities

Matthew Zervides, Submission 9,814.

Submitters in favour of retaining native bird hunting believed that native bird hunting made a significant contribution to the local and state economies. They highlighted the amount they had invested in hunting and other related equipment.

As a duck hunter I would have over \$95,000 in assets that are directly a result of duck and quail hunting. This money has all been spent in the Victorian Economy and benefits small business immensely. Then you take not account that I would spend around \$250 per trip on fuel, food, [accommodation] etc and I would do at least 10–15 trips a year you are looking at a further 3 thousand dollars injected into the economy and that is just me! I hunt with a group of over 5 other guys so if you multiply that out by 5 you get \$15,000 into the rural towns from our group alone. We make a conscious effort to buy all our supplies in the small rural town closest to our hunting location to get the maximum amount of impact in these small communities.

Jacob Wade, Submission 9,953.

Many also highlighted the impact on regional tourism, they spent a considerable amount when travelling to regional towns that close to native bird hunting sites. This included local accommodation, hospitality venues and outdoor recreation stores.

I am now one of the literally thousands of interstate hunters who travel to the great hunting state of Victoria to participate and continue my hunting culture and family tradition ... I spend many thousands of dollars each year in Victoria travelling and staying in Geelong to participate in the fantastic wetland hunting that this region has. I buy fuel, eat at local Geelong restaurants, purchase shotguns shells at the local gunshop (as I cannot travel with that many shells on the plane) It still feels like my home town to the point many locals still recognize myself when I return the Lake Connewarre and Reedy Lake each Victorian Duck Season.

Sean Frazer, Submission 8,187.

Submitters who supported native bird hunting also referred to economic contribution reports prepared by RMCG for the Victorian Government. These reports are discussed in detail in Chapter 4.

1.4.5 Non-compliant and antisocial behaviour by rescuers and protestors

A number of submitters raised concerns at the conduct of duck rescuers in wetlands. Some felt unsafe for themselves and rescuers, as the rescuers were often close to active shooters. This is despite a legal requirements for rescuers to remain at least 10 metres from hunters at all times.

Some stakeholders described how rescuers had reached downed birds that were still alive before hunters could reach them. They noted this practice is illegal and in some cases prolonged the suffering of birds as the wounds had caused fatal injuries. Others stated this practice increased the number of birds that were killed, as hunters unable to claim the bird would not add it to their daily bag limits.

Some made accusations that rescuers were breaking laws such as entering hunting zones outside of permitted times. Other submitters alleged antisocial and harassing behaviour from animal rescuers and other protestors. This included being surrounded by rescuers during their time on wetlands, encroaching on their personal space and theft of hunting equipment.

The Committee recognises the right to protest, and that animal rescuers are motivated by protecting wildlife. However, allegations of harassment against people who are otherwise compliant with a lawful activity are concerning.

1.5 Submissions opposing native bird hunting

The majority of submitters who opposed native bird hunting did so due to animal welfare and cruelty concerns. Many described native bird hunting negatively as ‘cruel’, ‘barbaric’ or ‘abhorrent’.

The environmental impact of native bird hunting was also a key issue for submitters who opposed it. They noted the declining trends of native bird populations since the Eastern Australian Aerial Waterbird Survey began in 1983. Many considered that native bird hunting was exacerbating pressure on bird populations that were already in decline due to habitat loss and climate change.

Regional Victorians Opposed to Duck Shooting provided a detailed submission that included responses they received from surveys conducted in 2018, 2021 and 2023. Its submission included responses from 800 participants on the negative impact of native bird hunting to their environmental, social and economic amenity.² The organisation provided a summary of key quotes from residents of regional Victoria in its submission who opposed native bird hunting for a range of reasons.³

The Committee received a large number of submissions opposing native bird hunting that were similar in form and content. These were coordinated by Animals Australia and Birdlife Australia.

Many noted that Western Australia, New South Wales and Queensland had ended recreational native bird hunting and believed the Victorian Government should also follow.

1.5.1 Animal welfare issues

Many submitters considered animal welfare issues as a key reason to end native bird hunting.

Among these issues, a key concern was the wounding rates associated with native bird hunting. Wounding occurs when a bird is not hit by an immediately lethal shot.

² Regional Victorians Opposed to Duck Shooting, *Submission 1,587*, Attachment A.

³ *Ibid.*, pp. 55–63.

These submitters believed the wounding rate of native birds is too high due to the use of shotguns, which disperse pellets and have a tendency to wound birds if not used in a skilled and ethical way. Many considered native bird hunting to be untenable due to the inability to reduce wounding rates to an 'acceptable' level.

I am a licensed gun owner and a hunter. I own and use rifles and a shotgun for hunting. I think my long experience as a hunter is relevant here. I strongly oppose duck and quail hunting and think both should be banned forthwith. Shotgunning of birds results in far too many instances of wounding and inevitable, often lengthy periods of suffering, as demonstrated by GMA research ... Furthermore large numbers of birds which ARE NOT target species are wounded and/or killed by duck hunters every season. This has been demonstrated time and again by volunteer groups who have collected the carcasses or wounded specimens of these species. No ethical hunter, keen to avoid wounding at all times, and careful to identify his or her target, can accept these ongoing cruel outcomes.

Name withheld, *Submission 8,212*.

During the Inquiry the Committee heard the difficulty in estimating wounding rates, with exact rates provided ranging from as low as 6% of birds shot to as high as 80%, but likely up to 40%. Submitters noted that wounding prolonged the suffering of birds, some of which would die slowly.

In addition, submitters highlighted their observations and provided evidence of improper kill method for downed birds. This included 'windmilling', where a duck is swung by its head in an arc or a circle to break its neck. Stakeholders noted that windmilling is considered an unacceptable method under the Game Management Authority's *Guidelines for humane dispatch of downed ducks*.⁴

Submitters also provided evidence of wounding or killing of native birds that are not permitted game species, either by accident or purposely by hunters. This includes bird that are on the Threatened List due to population decline. Many believed that shot threatened species were not collected by hunters even when shot accidentally, to avoid penalties.

During the duck opening this year, a significant number of Blue-winged Shovelers and a Hardhead were shot even though there was so much attention on shooters by duck rescuers and officers. Historically, it was quite easy to determine which ducks were game species as all game birds featured white on some part of their wings. Hunters, therefore, shot any duck with white visible on its wings. Blue-winged Shovelers and Hardheads, while once classified as game birds, are now listed as threatened and are therefore protected species. I think they are still regularly shot because of the white on their wings, placing these species at further risk to population decline.

Manfred Zabinkas OAM, *Submission 8,608*.

⁴ Game Management Authority, *Guidelines for humane dispatch of downed ducks*, (n.d.), <https://www.gma.vic.gov.au/_data/assets/pdf_file/0007/498985/Web-Guidelines-for-humane-di--of-downed-ducks-August-2019.PDF> accessed 17 July 2023, p. 21.

I witnessed a massacre of pink eared ducks; they were shot during a brief foggy storm that had little to no visibility. After the storm cleared, dozens of pink eared ducks were found dead on the shorelines of the wetland. They were not retrieved by shooters.

Name withheld, *Submission 9,366*.

1.5.2 Environmental concerns

The Government's State of Environment Report (Victoria) report has determined that Victoria has the highest number of threatened species by subregion in Australia, with over 700 fauna and flora species and ecological communities threatened. Between one quarter and one third of all terrestrial plants, birds, reptiles, amphibians and mammals, and complex ecological communities, are at risk of extinction. The Government's recreational duck shooting program is condemning the very ones who need our protection.

Gariwerd Animal Biodiversity Alliance, *Submission 9,632*.

A key issue raised in submissions supporting an end to native bird hunting was the decline in native bird populations in Victoria and throughout Australia. Although the Committee heard from expert witnesses this was primarily driven by habitat loss, submitters believed that hunting was adding undue pressure on populations that are already in steady long-term decline.

Submitters who opposed native bird hunting noted that many of the wetlands where hunting is permitted are considered Wetlands of International Importance under the Ramsar Convention.⁵ Many noted the findings of a 2016 Victorian Auditor-General's Office report into the Victorian Governments' management of obligations under the Ramsar convention.⁶

Many noted that protected bird species were shot by hunters, either accidentally or deliberately. They also highlighted the results of a survey conducted by the Game Management Authority in 2020 on hunter knowledge, which indicated some hunters may have a poor knowledge of species of birds that are on the Threatened list.

Many spoke of toxic levels of lead (from lead shotgun pellets which are now illegal to use in duck hunting but are still used to hunt quail. Some raised heightened PFAS⁷ levels that had detected in selected game hunting reserves and some duck meat.

As a long-time farmer on low-lying land in East Gippsland, with ducks on my property, I am very much against duck shooting. Ducks are [part] of the natural environment and help on our farm by cleaning up invertebrates. I see no good reason to shoot them. Our human population has grown so large that even a short hunting season

5 Ramsar, *Wetlands of International Importance*, <<https://www.ramsar.org/about/our-mission/wetlands-international-importance>> accessed 17 July 2023.

6 VAGO, *Meeting Obligations to Protect Ramsar Wetlands*, 2016, <<https://www.audit.vic.gov.au/report/meeting-obligations-protect-ramsar-wetlands>> accessed 17 July 2023.

7 A group of over 4,000 chemicals historically used in firefighting foam. Increase PFAS presence has been detected throughout many Victorian sites and there is growing concern about the health effect increase exposure has on humans.

can be devastating to ducks (and other water life which become part of the carnage). Wildlife, including ducks have experienced some terribly destructive years in recent times with long years of drought and massive bushfires in our area. We need to take some responsibility for protecting wildlife as we continue the unstoppable increase in human population.

Christine Vanderwerf, *Submission 1,389*.

1.5.3 Impact on cultural heritage and significant sites

Our First Nations will be applying to the Commonwealth for protection of cultural heritage for permanent protection declarations across all waterways. It is our belief that our tangible and intangible cultural heritage is being desecrated on our Country, landscape and waterways. Our showcasing of our creation stories and Astronomy is impacted by the killing of ducks and the desecration of our culture and histories.

Victorian Traditional Owner Land Justice Group, *Submission 1,496*.

As a Wiradjuri woman, an ecologist and an animal rescue volunteer, I ask that our water birds are protected for all and not exploited by a minority.

Homeless Hounds Animal Rescue, *Submission 167*.

The Committee heard about the impact of native bird hunting on First Nations' cultural heritage, including destruction of sites. This included scar trees being cut down and used as firewood.

All wetlands in Northern Victoria average an Aboriginal Cooking Mound every 150 metres on the perimeter where there was plenty of timber. It is a disgrace to see many campers light fires, bury and leave rubbish on these sites, there is absolutely no respect for the First Australian's history. Shooters who enter Wetlands should be trained to respect these important sites, Parks Victoria have failed in not identifying these sites with a sign. That would be true conservation! Also, every duck opening we loose significant scarred trees to campfires, this is also a disgrace. This year large amounts of firewood disappeared from Yando Swamp during the duck season, while locals are banned from collecting firewood.

Paul Haw, *Submission 7,539*.

Other submitters highlighted the importance of ducks as sacred totems for certain First Nations People.

Yumburra, the black duck, is the totem of the Yuin people. Yumburra is us, harm Yumburra and our other totems and you harm us. It is a cornerstone for our cultural practice and its importance to the Yuin is celebrated regularly through ceremony. Yumburra's story is rooted in our dreaming and our great teacher, Uncle Max Harrison, asked us to hold Yumburra lore. Yumburra also played an important role in our people's survival when our ancestors escaped from colonial invaders at Wallaga Lake.

Back to Country, *Submission 9,790*.

1.5.4 The Game Management Authority's compliance and enforcement

Submitters who were opposed to native bird hunting highlighted governance and compliance issues they had observed by the Game Management Authority. They noted the findings of the 2017 independent review of the Game Management Authority by Pegasus Economics, which many described as 'damning'.

Many submitters believed there was no possible way for the Game Management Authority to adequately ensure compliance by hunters due to the sheer area covered by hunting. They considered this as a key reason to end native bird hunting.

Several claimed they had contacted the Game Management Authority or Victoria Police with complaints about hunter behaviour but were dissatisfied by responses from either agency. Many stated their complaints had not progress past initial enquires or had not been investigated at all.

In its submission, Regional Victorians Opposed to Duck Shooting highlighted the inaccuracy in hunting maps provided by the Victorian Government's MapshareVic website. It argued that this was a public safety issue as members of the public were not able to determine exactly where hunters were likely to be. It also considered that this meant native bird hunting was unable to be monitored as agencies were not accurately able to estimate the number of areas it occurred.⁸

Other submitters believed the existing Waterfowl Identification Test required by native bird hunters was inadequate. Some referred to findings from a Game Management Authority analysis of results from the test, which they believed showed inadequate ability from the majority of those who took the test.

1.5.5 Loss of amenity

It ruins regional communities. Imagine how people living in the city would feel with constant gun shots ringing in the air for 2 months. They would NEVER allow it. Why do we think it's OK to impose this on country people.

I usually really look forward to celebrating ANZAC Day. This year it is coming with dread. The next day the guns will start. I live in Bairnsdale Victoria with the Macleod Morass Wetlands nearby. We can clearly hear guns firing from our house and yard. It distresses me that every shot heard is being fired at the ducks. We have so many beautiful birds in the East Gippsland Lakes. I can't imagine the distress this noise causes them. I haven't witnessed visually the cruelty by the shooters as the general public are forbidden to enter the nearby wetlands during hunting season.

We live next to Loch Garry in Bunbartha Victoria. Every duck season we have shooters near or property. Disrupting our animals and even have shotgun pellets landing on our roof of our home. Shooters offer shoot outside the times allowed also. The shooters also leave huge amounts of rubbish in the nature reserve on top of the devastation

⁸ Regional Victorians Opposed to Duck Shooting, *Submission 1587*, pp. 7–9.

they cause to the local flora and fauna. Game management authority have been contacted on numerous occasions during the duck season but nothing gets done about the shooters, even when evidence is provided about illegal activities.

Whilst on holiday during duck shooting season, we realised we were staying in an area that allowed the sport. We ended up coming home early as the sound of the animals being shot and killed for fun was horrendous, and quite distressing. While we were there we were stressed the whole time, waiting for the next day's shooting to start - or finish. Even then, we knew there were injured animals lying there dying. That's no way to spend a holiday.

Survey responses, Regional Victorians Opposed to Duck Shooting, *Submission 1,587*.

The Committee heard from residents of towns close to bird hunting locations who described the loss of amenity during hunting seasons. Their issues included examples of:

- the impact on other animals on properties such as dogs, horses and livestock, which become distressed by the sound of gunshots
- an inability to work from home or loss of sleep caused by the sound of gunshots
- a loss of access to local areas.

Many detailed how they avoided areas close to game hunting reserves during the bird hunting season due to safety concerns and the impact of hunters on the sites. They also highlighted waste and pollution left behind by hunters in wetlands and surrounding campsites.

1.5.6 Substitute activities and ecotourism

I conduct Environmental and Aboriginal tours on the Wetlands and cannot operate in the duck shooting season or will be fined significantly. My wife, Cathie and I are the operators Yung Balug Museum on the East side of Lake Boort. Since Duck Opening the attendance has dropped to 10 a week where it usually is around 100 a week, we just cannot allow Students to attend. To think that there is only an average of 5 - 10 duck shooters a day on the lake.

Paul Haw, *Submission 7,539*.

Many submitters believed that the economic impact of native bird hunting had been overstated compared to the direct benefits.

Several referenced the Australia Institute's 2012 research piece 'Out for a Duck'. This found that impact of native bird hunting to the Victorian economy was far less than commonly stated.

Others noted the high substitutability of native bird hunting with other outdoor activities such as camping, 4-wheel driving and fishing. They considered these all as far lesser impact on the environment while pointing out they had a higher economic benefit.

Some submitters believed that native bird hunting could be substituted with other ecotourism activities if native bird hunting were ended. They commonly included bird watching as an emerging pastime.

Others believed that hunters would be better off hunting pest and non-native game birds to control non-native animal populations.

Many submitters believed that by ending native bird hunting, the Government would allow existing areas to be opened up for use as ecotourism. Some suggested that investing in tourism for sites—particularly Ramsar-listed wetlands—would provide a bigger economic contribution to the state than native bird hunting.

The economic contribution of native bird hunting is discussed in detail in Chapter 4.

1.5.7 Non-compliant, antisocial and illegal behaviour by hunters

Many submitters who were animal rescuers or local residents described non-compliant and antisocial behaviour of hunters that they had witnessed or experienced. This ranged from:

- spent shotgun shells and pellets, rubbish and other pollution caused by hunters and hunting activities
- antisocial behaviour including alcohol and drug consumption
- hunting on private land without permission
- destruction of local environment such as trees illegally used for firewood, including trees of cultural significance.

Some submitters alleged they had been harassed and received personal threats from hunters, either on native bird hunting reserves or online contact. Several provided evidence they had personally recorded in support of this. Others pointed to media reports over the years detailing antisocial and illegal behaviour by hunters.

Regional Victorians Opposed to Duck Shooting noted its survey findings that indicated 74% of respondents had witnessed illegal activity caused by native bird hunters. This included:

- trespassing
- littering
- shooting in the dark
- leaving behind wounded birds
- shooting protected species
- removing habitat
- leaving campfires unattended.⁹

⁹ Ibid., pp. 9–10.

The Committee also received picture and video evidence to of antisocial and non-compliant behaviour by hunters. In some cases, the Committee has chosen to redact or not publish evidence where individuals may be identified in line with committee practice.

The Committee strongly condemns any personal harassment, threats or other violent activity by any persons. However, the Committee notes any further investigation on allegations or evidence relating to criminal activity is not a matter for investigation by a parliamentary inquiry and should be dealt with by the appropriate authorities.

1.6 Demographics of submitters

The Committee received more than 8,200 submissions via the parliamentary website. The remaining submissions were received in a combination of direct-to-inbox emailed submissions and submissions received by post.

Stakeholders who made submissions via the parliamentary website also had the option of providing demographic data such as age and postcodes. Although data was not collected from every submission, the trends here provide an insight to the overall evidence received by the Committee.

Further information on submissions, including a list of submitters, is detailed in Appendices A and B.

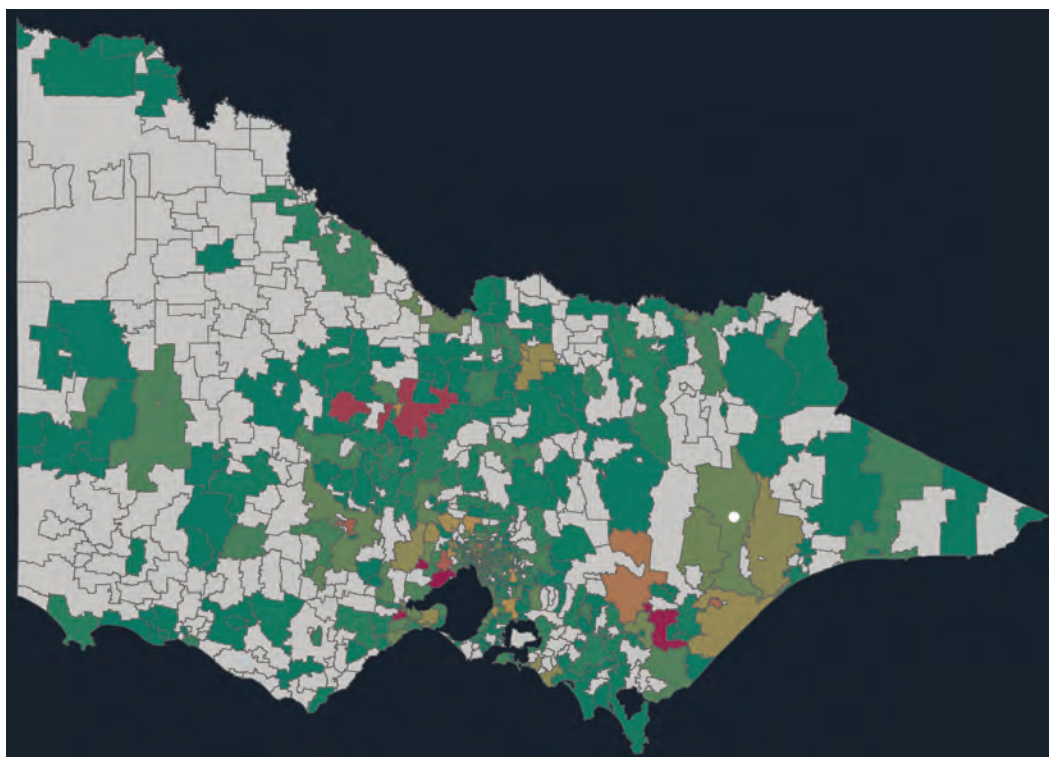
Note that the following demographic data does not include submissions emailed directly to the Committee's inbox or sent by post.

1.6.1 Postcode analysis

The Committee also received age and postcode data from approximately 6,898 submissions received through its website. From these, approximately 3,880 were from regional Victorians, with the remaining 3,018 from metropolitan Melbourne. A higher percentage of submissions from regional Victorians is unusual for a parliamentary Inquiry but highlights the interest in the topic from regional residents.

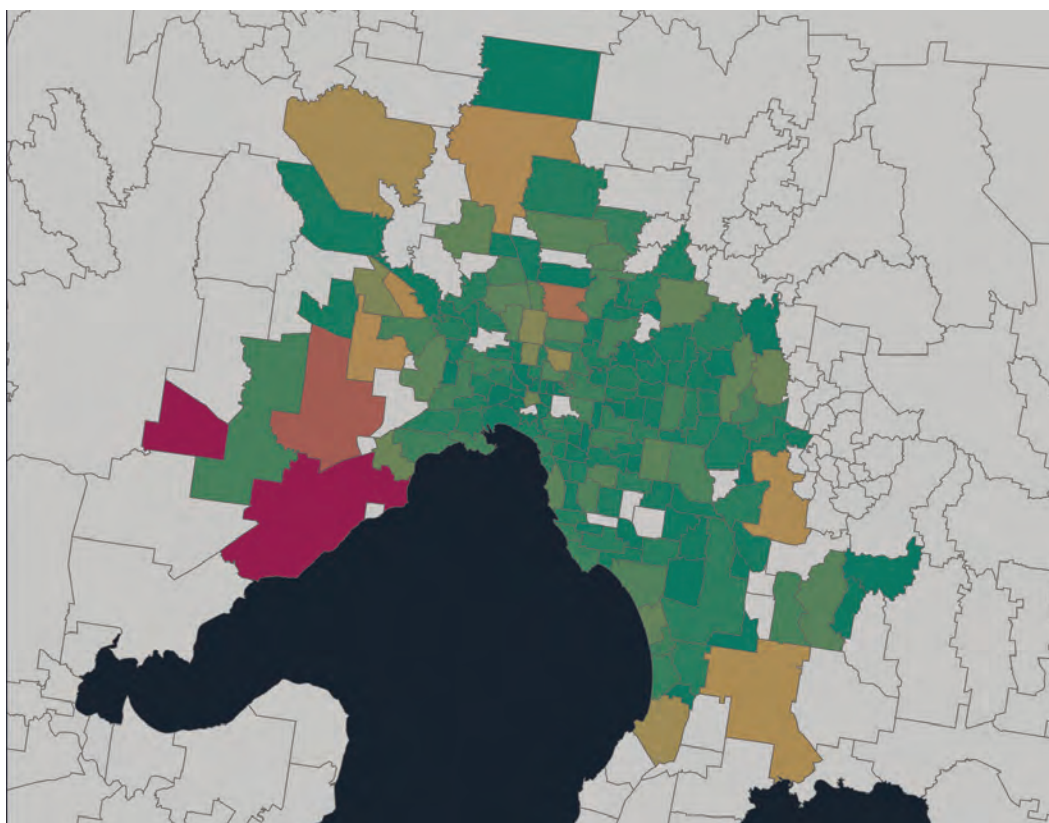
Figure 1.1 and Figure 1.2 below show heatmaps of submissions by postcode.

Figure 1.1 Heatmap of submissions by postcode, Victoria



Source: Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

Figure 1.2 Heatmap of submissions by postcode, metropolitan Melbourne



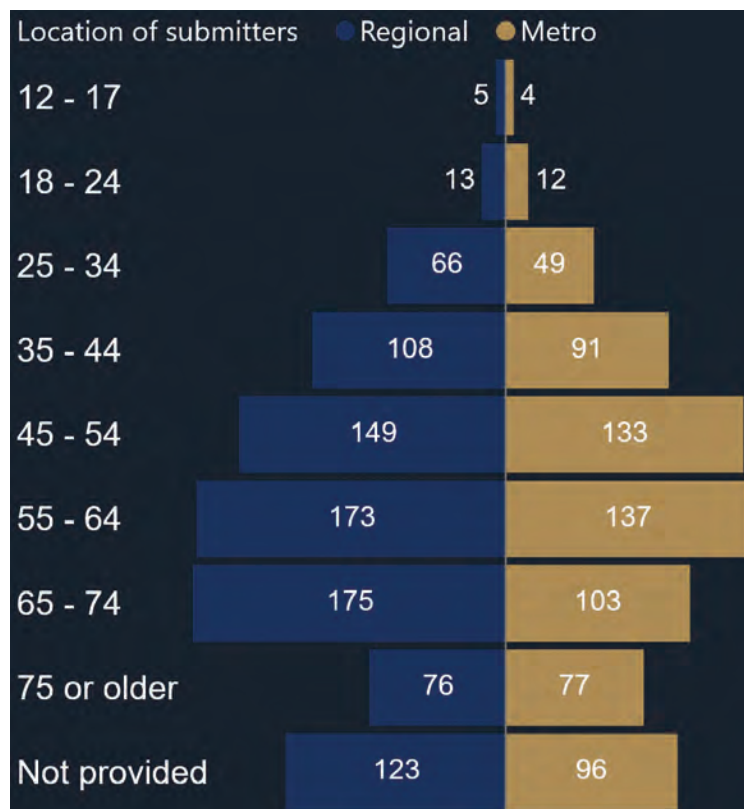
Source: Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

1.6.2 Submitter ages

The Committee also received data from individuals who made submissions. This is shown in Figure 1.3 below.

Most submissions were received from people aged 45 to 54, in both regional Victoria and metropolitan Melbourne. There was generally a proportionately even spread between submitters from regional Victoria and metropolitan Melbourne across all submitter age brackets. The exception was the 65 to 74 age group, who in regional Victoria had a higher proportion of submitters compared to metropolitan Melbourne.

Figure 1.3 Submitter data based on age (individuals)



Source: Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

Chapter 2

Native bird hunting in Victoria

Recreational native bird hunting has occurred in Victoria since colonisation. However there has been an increasingly polarised public sentiment to bird hunting as a recreational activity, particularly since the first ‘duck rescue’ occurred in 1986.

Native bird hunting occurs across over 200 state game reserves, as well as certain Crown Land and National Parks. Hunting also occurs on private land, where permitted.

Hunters must hold an appropriate licence endorsement and undergo a Waterfowl Identification Test before hunting. There is also an exemption under the *Wildlife Act 1975* for an Authority to Control Wildlife, which allows for humane destruction of animal (including native birds) in certain circumstances, such as when they are causing damage to property.

2.1 Hunting locations

Land classification determines whether duck hunting is a permitted activity in wetlands on public lands. During the hunting season, all state game reserves, state forests, forest parks, and other unoccupied crown land are available for duck hunting.

There are specific exceptions, with certain areas of coastal parks permitting both quail and duck hunting during designated seasons. Additionally, native duck hunting is permitted on licensed crown land and private land with the consent of the landowner or manager. These are summarised in Table 2.1 below.

Table 2.1 Hunting rights by land clasification

Land classification	Hunting rights
State game reserves	<ul style="list-style-type: none">• Victoria has over 200 state game reserves, which are typically wetlands, covering a total of 75,318 hectares.• All State Game Reserves are available to duck hunting during the season.
Crown land	<ul style="list-style-type: none">• Crown land is land owned and managed by the government. It comprises approximately one-third of all land in Victoria.• The majority of Victoria's Crown land is national and state parks and forests. The remainder includes land set aside for public purposes, including cemeteries, public halls, railways, schools, hospitals and sporting amenities.^a• The use and administration of Crown land in Victoria are primarily governed by four key land Acts: the <i>Land Act 1958</i>, the <i>Forests Act 1958</i>, the <i>National Parks Act 1975</i>, and the <i>Crown Land (Reserves) Act 1978</i>.• The Department of Energy, Environment and Climate Action assists the government in determining the status of land. This includes:<ul style="list-style-type: none">– Leased Crown land: Game during hunting season requires the permission of the lessee.– Licensed Crown land: Game during hunting season requires the permission of the licensee.– Unoccupied Crown land: Game hunting is allowed during the season.
National parks, state parks, coastal parks, wilderness parks, and regional parks	Hunting of any type is generally not permitted at any time, but there are some exceptions.
Flora and fauna reserves and nature conservation reserves	<ul style="list-style-type: none">• Hunting of any kind is not permitted at any time.• Carrying and using firearms in these areas is also prohibited.
Sanctuaries	While pest animals may be hunted, game may not be hunted at any time.
Alpine resorts	Hunting of any type is not permitted.
Private land	A game license is required, and game license conditions apply when hunting on private land.
Melbourne water catchment areas	Hunting of any kind is prohibited.

a. Land Use Victoria, *What is government land?: Understanding government land, an important asset for all Victorians.*, 2023, <<https://www.land.vic.gov.au/government-land/first-time-here/what-is-government-land>> accessed 17 July 2023.

Source: Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

The Stubble Quail is the only native quail species that can be legally hunted in Victoria. Around 175,000 Stubble Quail are harvested each year, mostly on private paddocks and grasslands, although 16 State Game Reserves are also open to Stubble Quail hunting.

Based on land classification, approximately 3.5 million hectares of public land is available for duck hunting. According to the Department of Energy, Environment and Climate Action, this includes about 285,000 hectares of primary hunting locations near waterways, of which 75,000 hectares are state game reserves.¹

1 Mr James Todd, Chief Biodiversity Officer, Department of Energy, Environment and Climate Action, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 57.

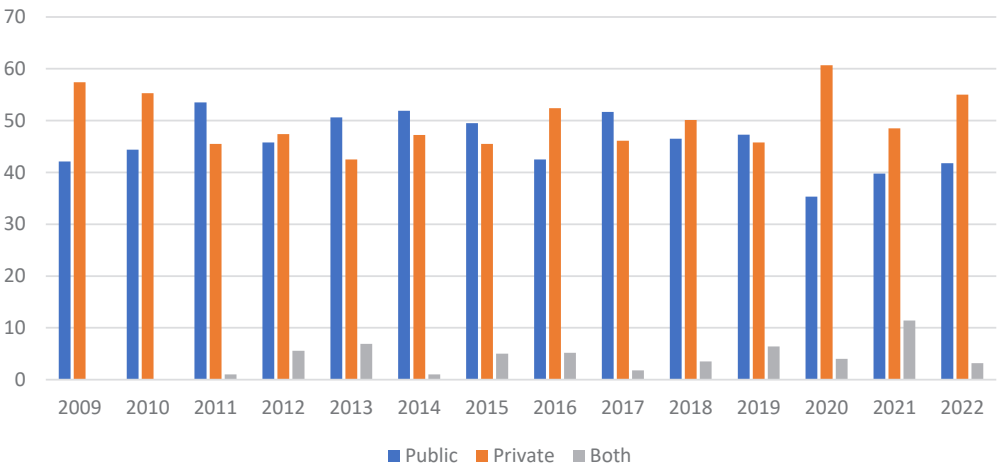
The Game Management Authority informed the Committee that approximately 50% of duck hunting takes place on public land and 50% on private properties.²

There have been slight variations over the years due to water available and duck populations.

For instance, duck hunting on public land may increase in wetter years when natural wetlands hold good water. In drier years, natural wetlands on public land dry. In contrast, water storage levels (such as dams) can be artificially maintained on private land, which can lead to increased hunting on private land.

Figure 2.1 below show the proportion of duck hunting activity on public and private land, and on both land types. This data is drawn from the annual telephone surveys of hunters collected since 2009.

Figure 2.1 Percentage of duck hunting occurring on public and private land, 2009 to 2022



Source: Graeme Ford, Chief Executive Officer, Game Management Authority, public hearing, response to questions on notice received 4 August 2023.

On licensed Crown land, Stubble Quail hunting is generally permitted during the season opening unless the land is licensed under the *Land Act 1958*. On private land, Stubble Quail hunting is allowed during the season opening but requires the permission of the landowner or manager.

2.1.1 Availability and quality of map data

During the Inquiry the Committee received evidence about the lack of reliable map data for hunting. The Government’s MapshareVic website allows members of the public to generate maps with various overlays, including for hunting. This is concerning and increases the public safety risk.

2 Mr Simon Toop, Director, Strategy and Research, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 5.

In its submission, Regional Victorians Opposed to Duck Shooting detailed correspondence with the Game Management Authority discussing the inaccuracy of publicly available map data. It also provided examples of where hunting maps on MapshareVic were inaccurate, such as designating an entire reservoir as open to shooting where only certain parts should be shown.

The organisation noted correspondence from the Game Management Authority which conceded there were errors in the map caused by data that was not at a sufficiently accurate standard.³

In addition, Regional Victorians Opposed to Duck Shooting highlighted that government departments and agencies had not been able to provide an accurate estimate of hunting waterways in the State. It stated it has received estimates ranging from 8,000 to 15,000.⁴

The Committee notes that due to changing environment and weather cycles, total waterways and by extension hunting areas will fluctuate. However the Committee is concerned that there is a lack of easily accessible information on where hunting can occur, particularly given public safety considerations.

FINDING 1: Up to 3.5 million hectares of public land is available for duck hunting, for a limited season, of which 285,000 hectares are primary hunting locations near waterways, including 75,000 hectares of State Game Reserves.

FINDING 2: Publicly available map data on hunting areas is difficult to generate and available data is not at a consistent standard.

FINDING 3: If hunting is to occur in public places, it should be in declared areas rather than allowed in public land by default. This would assist members of the public to know where hunting can occur, and assist in effective regulation by the Game Management Authority and Victoria Police.

2.2 Permitted game

As at the 2023 season opening, there are 8 native duck species and 1 native quail species prescribed as game birds for hunting. These are:

1. Pacific Black Duck (*Anas superciliosa*)
2. Australasian (Blue-winged) Shoveler (*Anas rhynchos*)
3. Chestnut Teal (*Anas castanea*)

³ Regional Victorians Opposed to Duck Shooting, *Submission 1,587*, p. 7.

⁴ Ibid.

4. Grey Teal (*Anas gracilis*)
5. Hardhead (White-eyed) Duck (*Aythya australis*)
6. Australian Shelduck (Mountain Duck) (*Tadorna tadornoides*)
7. Pink-eared Duck (*Malacorhynchus membranaceus*)
8. Australian Wood Duck (Maned Duck) (*Chenonetta jubata*)
9. Stubble Quail (*Coturnix pectoralis*).⁵

There are also 4 non-native birds prescribed as game birds under the Wildlife (Game) Regulations.⁶

In 2021, the Minister for Environment added the Australasian (Blue-winged) Shoveler and Hardhead (White-eyed) Duck to the threatened species list under the *Flora and Fauna Guarantee Act 1988*.⁷ Since then, hunting either duck has been specifically prohibited in the gazetted notice for season opening and their population numbers have shown long term declines.⁸

2.3 Licence types

There are four types of licence categories for game hunting in Victoria:

- deer (stalking)
- deer (stalking and hounds)
- game birds, including duck
- game birds, not including duck.⁹

Individuals must hold a licence endorsement for the type of game they wish to hunt. Hunters may also hold licences with multiple endorsements (e.g. deer stalking and game birds including duck, game birds including duck and game birds not including duck).

To obtain a game license, including for hunting native birds, individuals must apply to the Game Management Authority and include the required fee as specified in the application process. A valid Victorian Game Licence is required for anyone who intends to hunt game in Victoria, including juniors aged 12–17 years and international visitors.

⁵ *Wildlife (Game) Regulations 2012* (Vic) Schedule 3.

⁶ Pheasant Partridge, European Quail, Japanese Quail and Californian Quail.

⁷ Game Management Authority, *Fact Sheet: No hunting of Blue-winged Shoveler*, 2022, <https://www.gma.vic.gov.au/_data/assets/pdf_file/0010/481519/No-hunting-of-Blue-winged-Shoveler-Dact-sheet.pdf> accessed 17 July 2023.

⁸ Mr Sean Dooley, National Public Affairs Manager, Birdlife Australia, public hearing, Sale, 26 June 2023, *Transcript of evidence*.

⁹ Game Management Authority, *Licence types*, <<https://www.gma.vic.gov.au/licencing/apply-for-a-game-licence>> accessed 10 July 2023.

2.3.1 The number of game licenses and license revenue

There were 58,016 fully licenced game hunters (58,332 including provisional licenses) in Victoria on 30 June 2022. Of these, 27,810 were licenced with an entitlement to hunt game birds. Victoria receives 4 million dollars in game licence revenues and about another \$4.4 million in gun licence revenue (see Table 2.2 below).

Table 2.2 The number of game licenses and game and gun license revenue

Category	Licences (No.)	Fee (\$/year)	Game licence revenue (\$000/year)	Gun licence revenue (\$000/year)
Deer (stalking)	27,699	60.92	1,687	2,093
Deer (stalking and hounds)	2,770	60.92	169	209
Game birds, including duck	11,083	60.92	675	837
Game birds, excluding duck	1,089	60.92	66	82
Deer (stalking) and game birds, including duck	9,712	91.38	887	734
Deer (stalking and hounds) and game birds, including duck	2,085	91.38	191	158
Deer (stalking) and game birds, excluding duck	3,442	91.38	315	260
Deer (stalking and hounds) and game birds, excluding duck	181	91.38	17	14
Total all licence categories	58,061	-	4,007	4,387

Source: Derived from the Game Management Authority 2022 Game licence statistics, summary report 2022 and Victoria Police webpages assuming 1.5 guns per shooter and by applying 2022-23 fee of \$15.23/unit.

FINDING 4: The Victorian Government receives about \$4 million per annum from game licence revenue plus about another \$4.4 million in gun licence revenue from 58,000 licenced hunters.

The most recent Game Management Authority data as of June 30, 2022 notes there were 58,332 people licensed to engage in game hunting in Victoria. There were:

- 11,083 game license holders with entitlements to hunt game birds including duck
- 1,089 with entitlement to hunt game birds not including duck

- 147 with provisional game licence to hunt game birds including duck
- 15,491 licenses with hunting entitlements of game birds/duck and deer entitlement.¹⁰

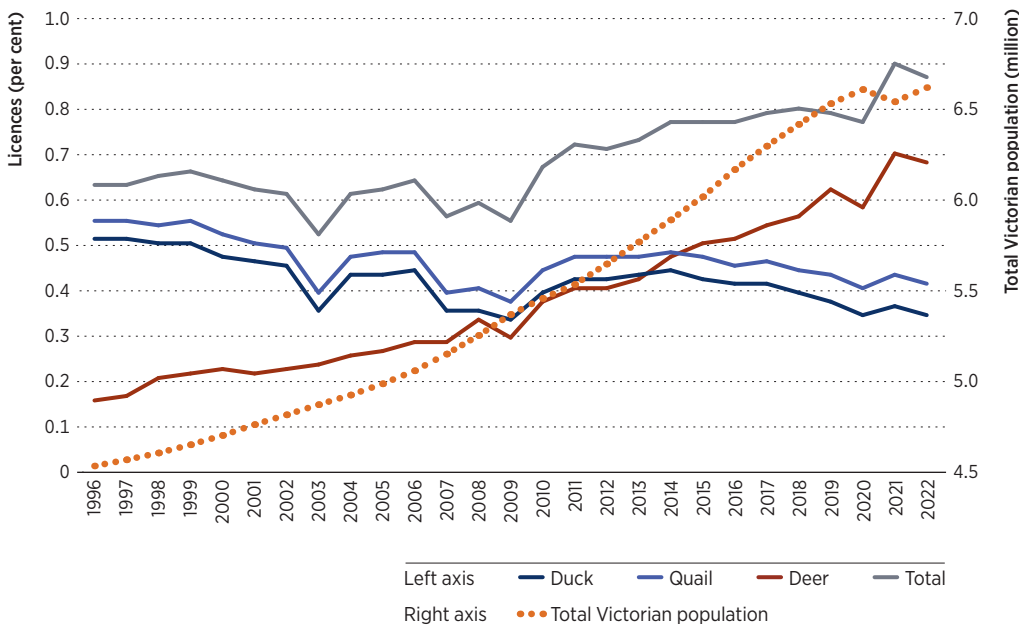
However the number of active native bird hunters (those who are licenced and participate in hunting seasons), is typically between 50% and 66% of licence holders depending on the season.¹¹

Since 1996, the total number of game licences has risen from approximately 23,000 to over 58,000. However the growth is mostly due to an increase in deer hunting licences. In the same period, duck and quail licences have increased by a modest amount.

In contrast to the growth of the Victorian population as a whole, the percentage of people with an entitlement to duck and quail in this time has fallen from 0.52% and 0.56% in 1996 to 0.35% and 0.42% in 2022 respectively.

Figure 2.2 below illustrates the trends in game licences versus the Victorian population from 1996 to 2022.

Figure 2.2 Percentage of Victorians who hold a game licence versus total Victorian population from 1996 to 2022 (as at 30 June each year)



Source: ABS statistics; Game Management Authority, *Game Licence Statistics Summary report 2022*, Victorian Government, 2022, p. 6.

¹⁰ Game Management Authority, *Game Licence Statistics Summary report 2022*, Victorian Government, 2022, pp. 6–7. The Sporting Shooters Association of Australia (Victoria) notes ‘More than half of the duck hunting game licences in Victoria do not include an endorsement for deer hunting.’ Sporting Shooters Association Australia (Victoria), *Submission 1,875*, p. 6.

¹¹ Graeme Ford, Chief Executive Officer, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 6; Game Management Authority, *Estimate of duck and stubble quail harvest in Victoria for 2022*, p. 2.

Children aged 12–17 can apply for a 12-month ‘provisional licence’ (for ducks) and a ‘juniors licence’ (for stubble quail).¹² A junior hunter with a provisional licence must be under the direct supervision of an adult who possesses a valid game licence specific to the targeted species. Applicants submit a licence application form from the Game Management Authority’s website along with the required fee.¹³ Firearm usage and hunting is not permitted for children under the age of 12.

There are additional exemptions from licence requirements for Traditional Owners that are granted under the *Traditional Owner Settlement Act 2010* and the *Native Title Act 1993* (Cth). These are discussed further in Chapter 3.

Traditional owners acting under a natural resource agreement¹⁴ or other authorisation are exempt from the requirement to hold a game licence. This allows them to hunt on their recognised traditional owner settlement area in accordance with agreed terms. However, traditional owners who wish to hunt duck with the use of hounds must pass a relevant test before hunting those species.¹⁵

2.3.2 Authority to Control Wildlife

An Authority to Control Wildlife is used for landholders and land managers who have issues with wildlife causing damage to property or which pose risks to human health and safety. An authority may include permission for lethal or non-lethal control methods.

Ducks can impact agriculture in some situations and can cause localised damage to some early-stage green crops. Impacted crops in Victoria include canola and types of cereal, leafy vegetable crops such as lettuce or bok choy and rice, which is grown in limited areas of Northern Victoria.

An Authority to Control Wildlife is issued under section 28A or 28A(1A) of the Wildlife Act.¹⁶ They are overseen and managed by the Conservation Regulator, a specialist regulatory body established in 2018. The regulator sits within the Department of Energy, Environment and Climate Action.

In responses to questions on notice, the Department of Energy, Environment and Climate Action provided data on Authorities to Control Wildlife. These are summarised in Box 2.1 below.

¹² Game Management Authority, *Licence types*.

¹³ \$61.20 at the time of writing or \$91.70 for a game licence to hunt game birds and deer. Children aged 12–17 are not required to pay a fee.

¹⁴ Alice Petrie explains that a Natural Resource Agreement ‘can be made in order to enable members of a Traditional Owner group to access, occupy and use certain public land in the agreement, as well as the natural resources on that land. Natural resources, as defined within the Act, include land, vegetation, animals, water, stones and earth; but do not include gold, silver, metals or minerals.’ Alice Petrie, *Land and water rights of Traditional Owners in Victoria*, Parliament of Victoria, 2018, p. 15.

¹⁵ Game Management Authority, *Licences*, <<https://licensing.gma.vic.gov.au/licences/>> accessed 18 July 2023.

¹⁶ Victorian Government, *Wildlife management and control authorisations: How to manage wildlife and apply for an Authority to Control Wildlife (ATCW)*, <<https://www.vic.gov.au/wildlife-management-and-control-authorisations>> accessed 17 July 2023.

Box 2.1 Summary of Authority to Control Wildlife authorisations relating to native birds

- Between 1 January 2018 and 17 July 2023, 50% of Authority to Control Wildlife permits for duck species in East Gippsland Shire, Murrindindi Shire, Mitchell Shire, West Wimmera Shire, Greater Shepparton, and Strathbogie Shire local government areas. Of these, approximately 71% were due to damage to agricultural production.
- In the past 5 years, 50% of those issued an Authority to Control Wildlife permit have re-applied in subsequent years.
- A condition of all Authority to Control Wildlife permits prohibits the use of lead shot. The conditions also require that animals must be dead before another is targeted to ensure humane control of wildlife.
- Since its establishment, the Conservation has not issued any Authority to Control Wildlife permits for threatened species of ducks.

Source: Beth Jones, Deputy Secretary Regional and Suburban Development, public hearing, response to questions on notice received 27 July 2023.

In the 2021–22 year there were 2,148 permits issued in total.¹⁷ Of these, 251 were issued for native birds. Figure 2.3 below provides a breakdown of these.

Table 2.3 Authority to Control Wildlife permits issued to control native birds in 2021–22

Species	Authorities issued 2021		Authorities issued 2022	
	For lethal control	For non-lethal control	For lethal control	For non-lethal control
Australian Shelduck	12	0	13	0
Chestnut Teal	1	0	0	0
Maned Duck (Wood Duck)	93	3	72	6
Pacific Black Duck	21	0	16	5
Grey Teal	5	0	4	0
Totals	132	3	105	11

Source: Department of Energy, Environment and Climate Change, response to questions on notice received 26 May 2023.

¹⁷ Conservation Regulator, *Year in Review: 2021–22*, Victorian Government, 2022.

2.3.3 Waterfowl Identification Test

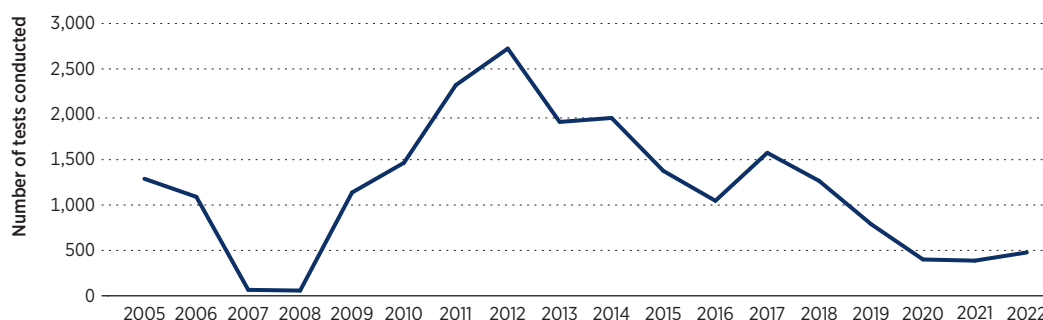
Since 1990, applicants for game bird hunting licences are required to pass the Waterfowl Identification Test. The test was introduced to reduce the incidence of protected waterbirds being shot during season opening.

The test consists of 22 multiple-choice questions video, and those taking the test have 20 minutes to complete all the questions. A species of waterfowl is shown in a video for approximately five seconds and applicants must identify the correct waterbird species and its hunting status before moving to the next question. The test is conducted in-person at various locations around Victoria. A score of 85% or greater is required to obtain a pass provided that the applicant also correctly identifies all non-game species.¹⁸

The test only needs to be completed once and those renewing an existing licence are not required to pass the test again. However, a court may order a person to re-sit the test again, such as after a conviction of shooting non-game birds.¹⁹

Figure 2.3 below illustrates the number of Waterfowl Identification Tests completed from 2005 to 2022.

Figure 2.3 Total Waterfowl Identification Tests completed each year, 2005 to 2022



Source: Game Management Authority, *Game licence statistics*, Victorian Government, Melbourne, 2022, p. 17.

Issues relating to the Waterfowl Identification Test are discussed in detail in Chapter 7.

2.4 Demographics of hunters

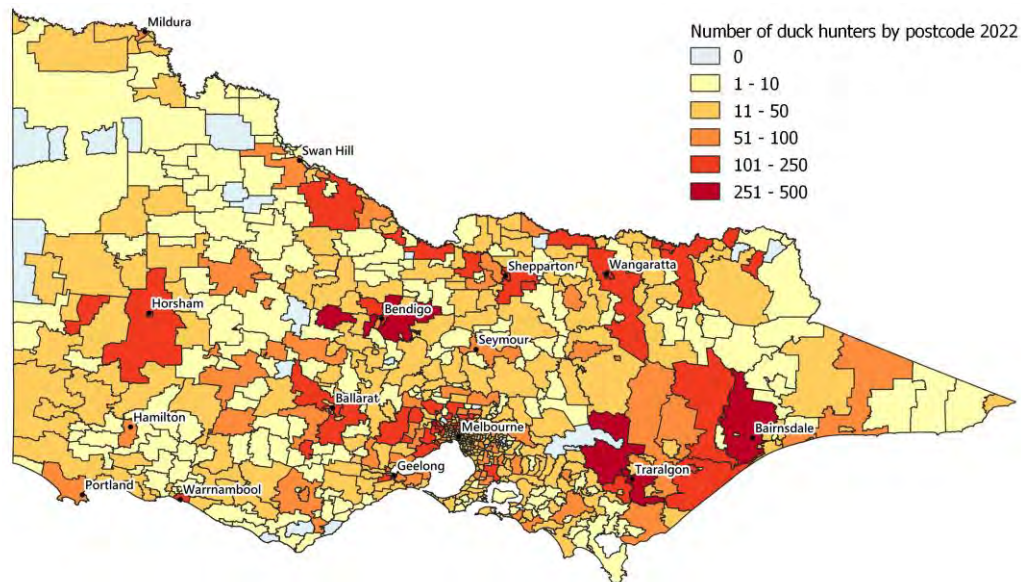
Most duck hunting licence holders reside in regional Victoria. This is relatively consistent with the demographics of all hunters. In contrast, stubble quail and other introduced game bird licence holders (game birds excluding ducks) are mostly concentrated around metropolitan Melbourne.

¹⁸ Game Management Authority, *Waterfowl Identification Test*, <<https://www.gma.vic.gov.au/licencing/waterfowl-identification-test>> accessed 16 May 2023.

¹⁹ Ibid.

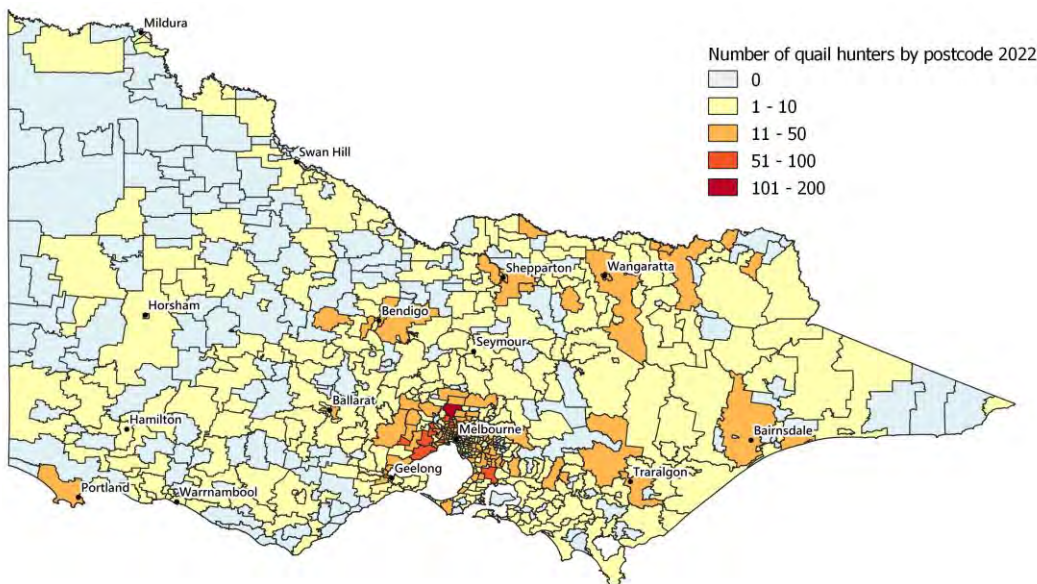
Figures 2.4 to 2.6 below illustrate the distribution of duck, quail and other introduced game bird and all hunters by postcode as at 30 June 2022.

Figure 2.4 Duck hunters by postcode as at 30 June 2022



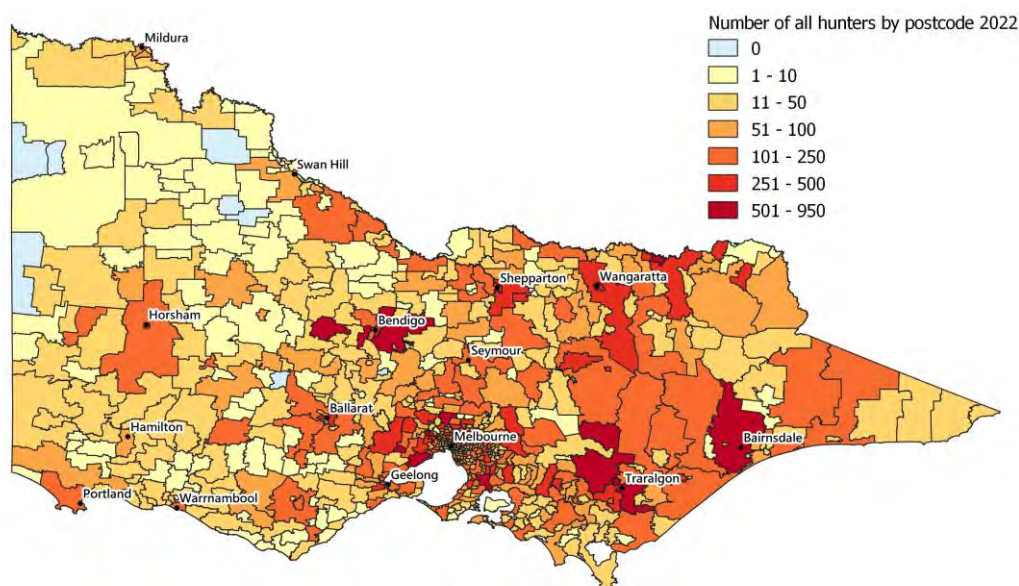
Source: Game Management Authority, *Game Licence Statistics Summary report 2022*, Victorian Government, 2022, p. 15.

Figure 2.5 Stubble Quail and other introduced game bird hunters (not including those endorsed for duck hunting) by postcode as at 30 June 2022



Source: Game Management Authority, *Game Licence Statistics Summary report 2022*, Victorian Government, 2022, p. 16.

Figure 2.6 All hunters by postcode as at 30 June 2022



Source: Game Management Authority, *Game Licence Statistics Summary report 2022*, Victorian Government, 2022, p. 16.

Native bird hunting licence holders are predominantly male, which is consistent with game hunting overall. Males make up 98% of duck hunters, 95.4% of non-duck bird hunters and 95.8% of game hunters overall.

Male game licence holders vary in age depending on the type of licence held. For duck hunting, 62.9% of licence holders were aged 48 to 68. For non-duck game bird hunters, 58.8% of male licence holders were aged 28 to 57. Overall, males aged 28 to 57 account for 57.9% of all total game licence holders.²⁰

For females, a typical licence holder is younger than males. Around 69% of total female hunting licence holders are aged 18 to 47.²¹ Of females licenced to hunt duck, 61.8% are aged 18 to 47 and for non-duck game bird hunters 66.4% are aged 18 to 47.²²

2.5 The 2023 native bird hunting season arrangements

The 2023 hunting season spanned from Wednesday 26 April 2023, to Tuesday 30 May 2023. Hunting was permitted from 8.00 am until 30 minutes after sunset every day.²³

During this period, hunters were subject to a bag limit of four birds per day. In addition, hunting of Australasian (Blue-winged) Shoveler and Hardhead (White-eyed) Duck was prohibited as the ducks were listed on the Threatened List.

²⁰ Game Management Authority, *Game licence statistics: summary report 2022*, Victorian Government, Melbourne, 2022, p. 9.

²¹ Ibid.

²² Ibid., pp. 11-12.

²³ Victoria, *Victoria Government Gazette*, No. S112, 14 March 2023.

The declared season opening length differed from the length recommended to the Minister for Outdoor Recreation by the Game Management Authority. The Game Management Authority initially recommended a slightly extended season running from Wednesday 15 March 2023 to Monday 12 June 2023.²⁴

These species were banned by the Minister for Outdoor Recreation through the season declaration in the Government Gazette. This was due to them being placed on the threatened species list under the *Flora and Fauna Guarantee Act 1988*.

In addition, several wetlands were closed during the 2023 season. When the season was announced, 13 areas were fully or partially closed to duck hunting.²⁵ On 16 May 2023, Lake Connearre game reserve was announced to be closed for hunting from 19 May 2023 onwards.²⁶ In addition, four areas were immediately closed using emergency closure notices under s 86A of the Wildlife Act:

- Lake Elingamite lake reserve, 24 April 2023²⁷
- Lake Buloke state game reserve, 5 May 2023²⁸
- Lake Bookar state game reserve, 19 May 2023²⁹
- Lake Elizabeth state game reserve, 26 May 2023.³⁰

The Game Management Authority outlined the reasons for a modified season as follows:

While the interim harvest model has been run to inform the settings for the 2023 duck season, the outputs of this model have been modified to provide a more precautionary approach to concerns regarding the rates of wounding of ducks, poor behaviour by some hunters, and the fact that waterbird abundance, breeding and habitat availability, all show long-term declines.³¹

²⁴ Game Management Authority, *Recommendations for the 2023 duck season arrangements*, 2023, <https://www.gma.vic.gov.au/_data/assets/pdf_file/0004/928264/GMA-Brief-to-Minister-2023-duck-season-recommendation.pdf> accessed 15 July 2023.

²⁵ Victoria, *Victoria Government Gazette*, No. S 195, 21 April 2023.

²⁶ Victoria, *Victoria Government Gazette*, No. S 233 16 May 2023.

²⁷ Victoria, *Victoria Government Gazette*, No. S 199 24 April 2023.

²⁸ Victoria, *Victoria Government Gazette*, No. S 220, 5 May 2023.

²⁹ Victoria, *Victoria Government Gazette*, No. S 250 19 May 2023.

³⁰ Victoria, *Victoria Government Gazette*, No. S 266, 26 May 2023.

³¹ Game Management Authority, *2023 duck hunting season arrangements*, 2023, <<https://www.gma.vic.gov.au/media-releases/2023/2023-duck-hunting-season-arrangements>> accessed 16 May 2023.

2.6 Timeline of key events relating to native bird hunting

Government regulation of native bird hunting in Victoria dates back to at least 1867.³² Bag limits have been imposed since at least 1916.³³

In 1959 the Government established a Wildlife Reserve System and introduced game licences which were paid into a Game Development Fund. The fund was used to establish the Wildlife Reserve System and to purchase private land for public use in waterfowl conservation and for duck hunting opportunities.³⁴

Additional regulations have been introduced since the 1990s, which include the requirement for licence holders to take the Waterfowl Identification Test. Exclusionary zone requirements for non-hunters (such as rescuers and protestors) were first introduced in 1994. Lead shot was classified as ‘toxic shot’ in 2002 and banned from duck hunting, although it is still allowed for quail hunting today.

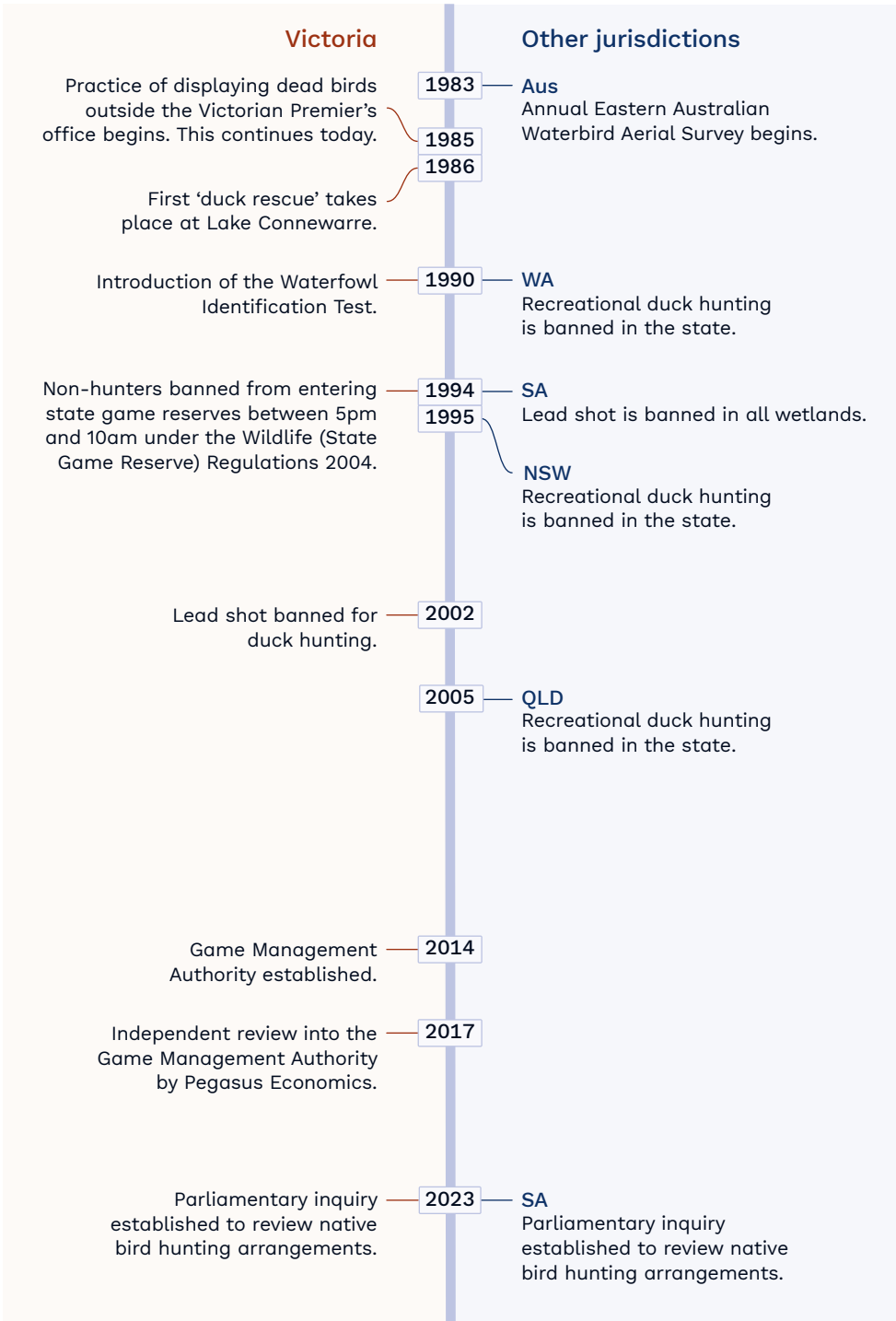
The Game Management Authority was established in 2014. It assumed the role as regulator for game hunting from Game Victoria, a unit of the former Department of Primary Industries.

³² *An Act to Protect Game* (Vic).

³³ Victoria, *Victoria Government Gazette*, No. 18, 19 January 1916.

³⁴ Game Management Authority, *An audit of Victoria's State Game Reserves*, Victorian Government, 2016.

Figure 2.7 Timeline of key events in native bird hunting in Victoria and Australia



Source: Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

2.6.1 Public sentiment and the duck rescue and protest movement

The modern Victorian duck hunting protest and rescue movement is generally attributed to the Coalition Against Duck Shooting and its campaign lead Laurie Levy between 1985 and 1986. The first 'duck rescue' was performed in 1986. Since then the

Coalition Against Duck Shooting has made representation in other states and has lobbied other government to end native bird hunting.

The Coalition Against Duck Shooting describes its native bird hunting activism as a ‘media campaign’. At a public hearing, Laurie Levey told the Committee:

we got a lot of media coverage. Now, the great thing about media coverage is that when you are debating the issue in the media – and part of our job was to force duck shooters out into the open, to make them debate the issue out in the public arena. And when you are debating in the media it is not 15 rescuers against 100,000 duck shooters: it is one spokesperson against another spokesperson.³⁵

Lead shot (along with other toxic shots) was banned for waterbird hunting through the *Wildlife (Game) (Amendment) Regulations 2000*. The ban came into effect in 2002 after a transitional period from 2000 to 2001. However, lead shot is still permissible for quail hunting on the 16 reserves it is permitted.³⁶

Over the years there have been several public opinion polls into duck and native bird hunting in Victoria and Australia. Many submitters noted the outcomes of this polls, including:

- Kantar research group (2016), indicating 66% of Victorians oppose duck hunting
- Morgan poll for the Coalition Against Duck Shooting, indicating an 87% support for a ban on duck hunting
- McCringle (2018) polling for RSPCA Australia, indicating 66% of respondents Australia-wide were concerned about shooting of ducks and other birds for recreation of sport (31% very concerned, 35% concerned)
- Red bridge (2022) for RSPCA, indicating 48.5% of Victorians supporting a ban on duck hunting (35.5% strongly support)
- Community Engagement (2023) for Sporting Shooters Association of Australia, indicating a 44.9% opposition to a ban on duck hunting in Victoria (30.6% strongly opposed, 14.3% opposed).

Others noted online opinion polls on social media and on news media websites with outcomes in favour and opposed to native bird hunting. Some submitters claimed that votes had been inflated by certain groups to skew results.

The methodologies of the polls above vary considerably and whilst the Committee notes their findings it makes no further comment on them.

³⁵ Laurie Levy, Campaign Director, Coalition Against Duck Shooting, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 49.

³⁶ Game Management Authority, *Non-Toxic shot information*, 2022, <<https://www.gma.vic.gov.au/education/duck-hunting-education/non-toxic-shot>> accessed 18 July 2023.

Chapter 3

Regulation of recreational native bird hunting in Victoria

In Victoria, the recreational hunting of native species of duck and quail is permitted for licence-holders who are endorsed to hunt either game ducks, non-game ducks or both. Hunting is permitted during season opening each year. This typically runs from the third Saturday in April to the second Monday in June for ducks and the first Saturday in April to 30 June for quail. However, this is subject to change based on bird populations and environmental factors.

Native bird hunting is overseen by the Game Management Authority in consultation with other Victorian Government agencies, which have responsibility for regulating various aspects of the practice. This includes controlling the timing and locations of hunting, determining which bird species are allowed to be hunted, acceptable methods of hunting, and establishing specific bag limits for hunters.

3.1 Overview of legislation

Native bird hunting is regulated by a framework of state, federal legislation. In addition, Australia has international obligations under the Ramsar Convention on Wetlands.

Although the *Wildlife Act 1975* is the principal Act governing native bird hunting, most of the arrangements are provided in the *Wildlife (Game) Regulations 2012*.

Figure 3.1 below provides a summary of the legislative framework.

Figure 3.1 Legislative framework for native bird hunting in Victoria



Source: Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

3.1.1 *Wildlife Act 1975*

The *Wildlife Act 1975* establishes procedures to:

- support the protection and conservation of wildlife
- prevent the extinction of species
- promote sustainable use of wildlife resources
- ensure access to wildlife in a sustainable manner
- regulate the activities of individuals involved in wildlife-related pursuits.

The Wildlife Act also contains provisions relating to game hunting licenses, including matters of license renewals, suspensions, and cancellations. It outlines offences against wildlife, which includes unlawful methods of killing, disturbing, molesting, and hunting game.

Section 86 of the Act allows the Ministers¹ to further regulate season settings for native bird hunting through a notice published in the Government Gazette. This includes modifying season opening times and lengths, and regulating or prohibiting hunting of certain species of wildlife.

Section 86A gives the Ministers emergency powers to close wetlands if they are satisfied that threatened or protected wildlife, other than game, is under immediate threat from hunting.

Authority to Control Wildlife

As all wildlife is protected under the Wildlife Act in Victoria, shooting wildlife without an appropriate authorisation, licence or exemption is illegal.

The exceptions permitted under the Wildlife Act allow a person to shoot, wilfully disturb or trap wildlife where it is damaging property, crops or other wildlife habitat, or for the purposes of management, conservation or protection of wildlife.

An Authority to Control Wildlife authorisation is issued under section 28A or section 28A(1A) of the Wildlife Act. These are administered by the Conservation Regulator.

More information on the Authority to Control Wildlife framework is available in Chapter 2.

¹ At the time this report was adopted, the Act was jointly administered by the Minister for Agriculture, Minister for Environment and Minister for Outdoor Recreation.

3.1.2 *Wildlife (Game) Regulations 2012*

The *Wildlife (Game) Regulations 2012* are the primary regulations for recreational native bird hunting. Among other things, they prescribe:

- open and close season times and lengths for various types of game hunting
- permitted game species
- bag limits
- licence and testing requirements.

3.1.3 *Wildlife (State Game Reserves) Regulations 2014*

The *Wildlife (State Game Reserves) Regulations 2014* provide for the management of State Game Reserves established under the Wildlife Act.

The regulations aim to safeguard wildlife within state game reserves, with a specific focus on native game species. They also address the hunting, capturing, or elimination of certain game species within State Game Reserves, while prioritising the safety, enjoyment, and recreational experiences of visitors to these reserves.

3.1.4 *Flora and Fauna Guarantee Act 1988*

The *Flora and Fauna Guarantee Act 1988* aims to ensure that Victorian flora and fauna can persist and improve in the wild and retain capacity to adapt to environmental change. Its objective is also to improve the conservation status of threatened species, prevent flora and fauna from becoming threatened, and protect, restore and enhance Victorian biodiversity.

The Flora and Fauna Guarantee Act prescribes the process for listing types of native flora and fauna that are in danger of extinction. Any person or organisation can nominate flora or fauna for addition to the Threatened List.

The Act establishes processes for protecting flora and fauna, including the threatened species list.² From 2021, two species of native birds (the Hardhead and Blue-winged Shoveler) were listed as ‘vulnerable’ on the Threatened List.³

3.1.5 *Firearms Act 1996 and Firearms Regulations 2018*

In Victoria, it is mandatory to register firearms with Victoria Police. In addition, individuals must possess a permit to acquire and hold a valid firearms licence to purchase, possess, carry, and utilise firearms within the state.⁴ Registration is not

² *Flora and Fauna Guarantee Act 1988* (Vic) s Part 3.

³ Department of Energy, Environment and Climate Action, *Flora and Fauna Guarantee Act 1988 Threatened List*, Victorian Government, 2023.

⁴ Victoria Police, *Firearms licensing*, <<https://www.police.vic.gov.au/firearms-licensing>> accessed 17 July 2023.

required for certain antique firearms produced prior to 1900, however all other firearms must be registered.⁵

As of 30 June 2022, there were 230,260 current Victorian firearm licences and 906,576 registered firearms.⁶

The *Firearms Act 1996* aims to ensure that the possession, carriage, use, acquisition and disposal of firearms do not threaten public safety and peace. It establishes a system of licensing and regulating the possession, carriage, registration, disposal, and use of firearms and related items.

The *Firearms Regulations 2018* regulate the use of firearms on private property and outlines provisions related to registration and fees for the issue and renewal of licences and permits.

3.1.6 Traditional Owner legislation

In Victoria, hunting rights for Traditional Owners are recognised under two Acts:

- the *Traditional Owner Settlement Act 2010*, via a Recognition and Settlement Agreement that includes a Natural Resource Agreement
- the Commonwealth *Native Title Act 1993*, via a native title consent determination).

Certain hunting-related offences in *Wildlife (Game) Regulations 2012* do not apply to Traditional Owners undertaking hunting activities in accordance with their Natural Resource Agreement and on their respective agreement lands.

The Victorian Government has entered into Natural Resource Agreements with three Traditional Owner Corporations under the Traditional Owner Settlement Act. These are listed in Table 3.1 below.

⁵ Australian Business Licence and Information Service, *Registration of a Firearm – Victoria*, 2023, <<https://ablis.business.gov.au/service/vic/registration-of-a-firearm/24234>> accessed 15 July 2023.

⁶ Victoria Police, *Victoria Police Annual Report 2021–2022*, Victorian Government, 2022, p. 61.

Table 3.1 Victorian Government Resource Agreements with Traditional Owner Corporations

Traditional Owner Group	Traditional Owner Corporation	Year
Dja Dja Wurrung People (Djaara)	Dja Dja Wurrung Clans Aboriginal Corporation	2013 ^a 2022 ^b
Taungurung People	Taungurung Land and Waters Council Aboriginal Corporation (formerly Taunrugung Clans Aboriginal Corporation)	2018
Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk Peoples (WJJWJ Peoples, Wotjobaluk Peoples)	Barengi Gadjin Land Council Aboriginal Corporation	2022

a. Natural resource rights provided via the former 'Authorisation Order' framework.

b. Standalone Natural Resource Agreement.

Source: Carolyn Jackson, Deputy Secretary, Environment, Climate Action and First Peoples, public hearing, response to questions on notice, received 27 July 2023, p. 9.

The *Native Title Act 1993* (Cth) provides for the recognition of rights and interests of Aboriginal peoples and Torres Strait Islanders in relation to land or waters. This includes hunting, gathering, or fishing.

Section 211 of the Native Title Act allows hunting activity and exempt native title holders from the requirement to hold a licence to hunt.

Native title rights and interests, including hunting rights, exist in areas of Crown land where the Federal Court has recognised native title to exist.

The groups in Table 3.2 below have recognised native title rights in Victoria following native title consent determinations.

Table 3.2 Recognised native title rights in Victoria

Traditional Owner Group	Traditional Owner Corporation	Year
Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk Peoples	Barengi Gadjin Land Council Aboriginal Corporation	2005
Gunditjmarra People	Gunditj Mirring Traditional Owners Aboriginal Corporation	2007
Gunaikurnai People	Gunaikurnai Land & Waters Aboriginal Corporation RNTBC	2010
Gunditjmarra People and Eastern Maar People	GMTOAC and Eastern Maar Aboriginal Corporation RNTBC	2011
Eastern Maar People	Eastern Maar Aboriginal Corporation	2023

Source: Carolyn Jackson, Deputy Secretary, Environment, Climate Action and First Peoples, public hearing, response to questions on notice received 27 July 2023, p. 11.

3.1.7 Ramsar Convention on Wetlands

The Ramsar Convention on Wetlands is an intergovernmental treaty that provides a framework for the conservation and ‘wise use’ of wetlands and their resources. Within the framework of the convention, the term ‘wise use’ encompasses the overarching goal of preserving the ecological character of wetlands. It was first adopted in the Iranian city of Ramsar in 1971 and came into force in 1975. Hunting is allowable under ‘wise use’.

As at October 2021, the treaty had 172 contracting parties (almost 90% of UN member states) that have acceded to the convention.⁷ The goal of the convention was to stop the worldwide loss of wetlands and conserve those that remain.⁸ Member states nominate sites that are important for conserving biodiversity. Ramsar sites then are wetlands of international importance and are listed under the Ramsar convention for protection.

The Ramsar convention entered into force in Australia in 1975.⁹ There are 67 such sites covering a total of over 8 million hectares in Australia. In Victoria, there are 12 Ramsar sites which are listed in Box 3.1 below.

⁷ Ramsar, *The Convention on Wetlands*, 2023, <<https://www.ramsar.org>> accessed 15 July 2023.

⁸ Department of Climate Change, Energy, the Environment and Water *Australia's Ramsar Sites*, 2021, <<https://www.dcceew.gov.au/water/wetlands/publications/factsheet-australias-ramsar-sites>> accessed 15 July 2023..

⁹ Ramsar, *Australia*, 2023, <<https://www.ramsar.org/country-profile/australia>> accessed 15 July 2023.

Box 3.1 List of Ramsar sites in Victoria

- Barmah Forest
- Corner Inlet
- Edithvale-Seafood Wetlands
- Gippsland Lakes
- Glenelg Estuary and Discovery Bay
- Gunbower Forest
- Hattah-Kulkyne Lakes
- Kerang Wetlands
- Lake Albacutya
- Port Phillip Bay (Western Shoreline) Bellarine Peninsula
- Western District Lakes
- Western Port

Source: Department of Energy, Environment and Climate Action, *Significant Wetlands: Wetlands of national and international significance*, 2022, <<https://www.water.vic.gov.au/waterways-and-catchments/our-waterways/wetlands/significant-wetlands>> accessed 17 July 2023.

As a signatory to the Ramsar convention, Australia has obligations which are shared between the Commonwealth and state and territory governments. These are codified in Australian law under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth). This Act aims to protect and manage nationally and internationally important plants, animals, habitats and places.

Part 3, Subdivision B of the Act provides the framework for Ramsar wetlands in Australia. Key obligations of Australian governments under the Act include:

- designation of wetlands as Ramsar Wetlands of International Significance
- promoting the wise use of wetlands
- international cooperation, particularly in managing wetland-dependant migratory species.¹⁰

Day-to-day management of Ramsar wetlands is the responsibility of the site managers, the majority of which are state and territory agencies.¹¹

Duck hunting is permitted at certain Ramsar wetlands in Victoria as it was an activity in place before the Environment and Biodiversity Conservation Act was enacted in 1999.

¹⁰ Energy Department of Climate Change, the Environment and Water *Submission 1804*, p. 1.

¹¹ *Ibid.*, p. 2.

As such, duck hunting in Victoria is considered a lawful continuation of land use under the Act¹² and a recreational service provided by the site.¹³

The Commonwealth Department of Climate Change, Energy, the Environment and Water provided supplementary evidence clarifying the continuation of land use provisions. It noted that if hunting were not already permissible and a proponent wanted to allow bird hunting on a Ramsar site, they would need to undertake an assessment on whether this would have a 'significant impact' on the site. Any action identified to constitute a significant impact is then required to be referred to the Minister for consideration under the Environment Protection and Biodiversity Conservation Act.¹⁴

The Department noted it was unaware of any instance where bird hunting had been referred to the Minister for approval under the Act.¹⁵

3.1.8 *Prevention of Cruelty to Animals Act 1986*

The *Prevention of Cruelty to Animals Act 1986* aims to encourage the considerate treatment of animals and improve the level of community awareness about the prevention of cruelty to animals.

This Act, except Part 3 relating to scientific research, does not apply to anything done in accordance with the *Wildlife Act 1975* and therefore does not apply to native bird hunting.

However, the Act does provide for the Governor in Council on recommendation of the Minister to make Codes of Practice relating to animal welfare. The Code of Practice for the welfare of animals in hunting specifies recommended practices in bird hunting, relating to:

- use of gundogs
- singling out single ducks rather than firing into a flock.¹⁶

Since 2020, the Victorian Government has been developing new animal care and protection laws. Consultation closed in October 2022. However, the Committee notes in the Government's proposed plan for the new laws they would not apply to hunting game animals under the *Wildlife Act 1975*.¹⁷

¹² Section 43B(1).

¹³ Department of Climate Change, Energy, the Environment and Water, *Supplementary evidence*, supplementary evidence received 18 July 2023, p. 1.

¹⁴ Ibid., pp. 1–2.

¹⁵ Ibid., p. 2.

¹⁶ Agriculture Victoria, *Code of Practice for the Welfare of Animals in Hunting (revision no. 1)*, 2023, <<https://agriculture.vic.gov.au/livestock-and-animals/animal-welfare-victoria/pocta-act-1986/victorian-codes-of-practice-for-animal-welfare/code-of-practice-for-the-welfare-of-animals-in-hunting-revision-no-1>> accessed 3 July 2023.

¹⁷ Engage Victoria, *Summary of Plan for Victoria's new animal care and protection laws*, <<https://engage.vic.gov.au/download/document/28583>> accessed 17 July 2023.

3.2 Native bird hunting season declarations and variations

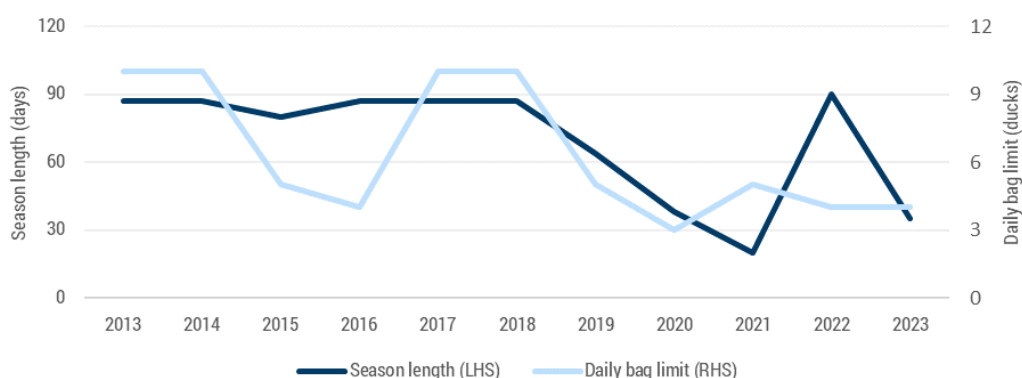
The default native bird hunting season arrangements are prescribed in the *Wildlife (Game) Regulations 2012*. For ducks, the default season runs from the third Saturday in March until the second Monday of June each year. This includes a prescribed daily bag limit of 10 game ducks per hunter (including no more than two Blue-winged Shoveler).¹⁸ Hunting is permitted from 30 minutes before sunrise to 30 minutes after sunset.¹⁹

The default Stubble Quail season runs from 1 April to 30 June every year with daily bag limit of 20 Stubble Quail. Lead shot can be used to hunt quail, unlike for duck hunting.

Default season arrangements can be modified through by the relevant Ministers under section 86 of the *Wildlife Act 1975*. This allows the Ministers to prohibit, regulate or control taking, destroying or hunting of wildlife in any area through notice in the Government Gazette.

Notable exceptions seasonal arrangements have taken place. For instance, duck hunting season was cancelled in 1983, 1995, 2003, 2007 and 2008, due to dry conditions or drought concerns.²⁰

Figure 3.2 Season length and bag limits for game bird hunting in Victoria



Source: Parliamentary Budget Office, *Submission 3,422*, p. 5.

FINDING 5: A duck hunting season lasts no more than 12 weeks between March and June and avoids the season of breeding and moulting, and typically lasts about 10 weeks, but was only 5 weeks in 2023.

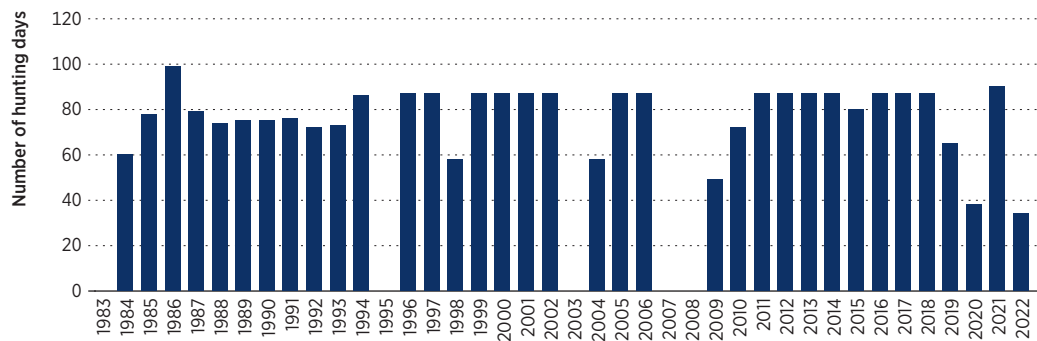
¹⁸ *Wildlife (Game) Regulations 2012* (Vic) s Schedule 4.

¹⁹ *Ibid.*, p. Schedule 3.

²⁰ Game Management Authority, *Summary of seasonal arrangements 1958 – 2022, 2022*, <https://www.gma.vic.gov.au/_data/assets/pdf_file/0005/653189/Summary-of-seasonal-arrangements-1952-2022-1.pdf> accessed 5 July 2023.

Figure 3.3 below shows the length of the duck hunting season since 1983.

Figure 3.3 Duck hunting season length from 1983 to 2023



Source: Game Management Authority, *Summary of seasonal arrangements 1958 – 2022, 2022*, <https://www.gma.vic.gov.au/data/assets/pdf_file/0005/653189/Summary-of-seasonal-arrangements-1952-2022-1.pdf> accessed 5 July 2023.

While the length of native bird hunting seasons and the daily bag limit vary from season to season, introduced game birds which include quail, pheasant and partridge can be hunted all year round without a bag limit.²¹

Bag limits for ducks have been reduced over the years, and in certain years there have been additional restrictions due to environmental factors. Table 3.3 below provides a summary of bag limits from 1952 onwards, based on Game Management Authority Records.

²¹ Parliamentary Budget Office, *Submission 3422*, p. 4.

Table 3.3 Bag limits for ducks from 1952 to 2023

Year/s	Opening day maximum	Other days maximum	Additional restrictions/changes
1952–59	20	10	None
1960–75	20	10	Various other limits on certain species
1976–82	20 ^a	10	None
1983	No season		
1984–86	20 ^a	10	None
1987	20 ^a	10	2 Blue-winged Shoveler
1988	10	10	<ul style="list-style-type: none"> • 2 Blue-winged Shoveler • Sunday hunting allowed
1989–94	10	10	2 Blue-winged Shoveler
1995	No season		
1996–97	10	10	2 Blue-winged Shoveler
1998	5 plus 5 additional Wood Duck	5	<ul style="list-style-type: none"> • 1 Blue-winged Shoveler • 3 Teal
1999	10	10	2 Blue-winged Shoveler
2000–01	5	5	1 Blue-winged Shoveler
2002	5 plus 5 additional Wood Duck ^b	5	1 Blue-winged Shoveler
2003	No season		
2004	2 plus 3 additional Wood Duck	2 plus 3 additional Wood Duck	None
2005	5 plus 5 additional Wood Duck ^b	5	1 Blue-winged Shoveler
2007–08	No season		
2009	2 plus 3 additional Wood Duck	2 plus 3 additional Wood Duck	<ul style="list-style-type: none"> • No Blue-winged Shoveler • No Pink-eared duck • No Hardhead duck
2010	5 plus 3 additional Wood Duck	5 plus 3 additional Wood Duck	1 Blue-winged Shoveler
2011–14	10	10	2 Blue-winged Shoveler
2015	10 ^c	10	1 Blue-winged Shoveler
2016	8	4	No Blue-winged Shoveler
2017–18	10	10	No Blue-winged Shoveler
2019	4 ^d	5	No Blue-winged Shoveler
2020	3	3	No Blue-winged Shoveler

Year/s	Opening day maximum	Other days maximum	Additional restrictions/changes
2021	5	5	No Blue-winged Shoveler
2022	4	4	<ul style="list-style-type: none"> No Blue-winged Shoveler No Hardhead duck
2023	4	4	<ul style="list-style-type: none"> No Blue-winged Shoveler No Hardhead duck

- No more than 10 of a particular species.
- Additional Wood Ducks could be taken on opening Saturday and Sunday.
- Included a maximum of 2 Blue-winged Shoveler.
- Limit applied to the opening weekend.

Source: Game Management Authority, *Summary of seasonal arrangements 1958 – 2022*, 2022, <https://www.gma.vic.gov.au/data/assets/pdf_file/0005/653189/Summary-of-seasonal-arrangements-1952-2022-1.pdf> accessed 5 July 2023.

3.3 Determining seasonal arrangements

The Game Management Authority provides advice to the Minister on upcoming native bird hunting season arrangements.

The process relies on consultation and input from key stakeholders, government departments, independent experts and draws on collected data about population and climate conditions. This data includes information from the previous season, the Victorian Helicopter Survey, the Bureau of Meteorology and the Eastern Australia Waterbird Survey).²²

The following sections give an overview of the key population data that is collected and the models used to determine native bird hunting seasonal arrangements.

3.3.1 Eastern Australian Waterbird Aerial Survey

The Eastern Australian Waterbird Aerial Survey monitors the yearly fluctuations in the distribution, population, and breeding patterns of waterbirds, as well as the evolution of wetland habitats. The survey provides:

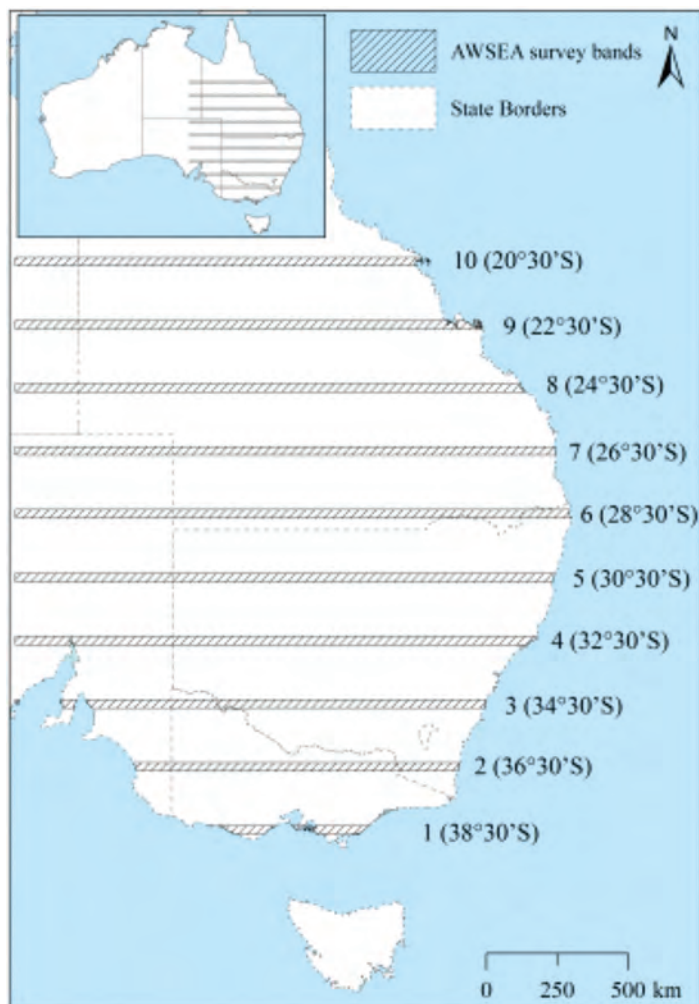
- an index (not total count) of abundance of waterbirds, including game ducks
- information on the distribution of waterbird and game duck populations along survey bands
- the extent and distribution of habitat along survey bands, and
- information on waterbird breeding.²³

²² Game Management Authority, *Duck season considerations*, 2023, <<https://www.gma.vic.gov.au/hunting/duck/duck-season-considerations>> accessed 15 July 2023.

²³ Game Management Authority, *Recommendations for the 2023 duck season arrangements*, 2023, <https://www.gma.vic.gov.au/data/assets/pdf_file/0004/928264/GMA-Brief-to-Minister-2023-duck-season-recommendation.pdf> accessed 15 July 2023.

The survey consists of bird counts conducted during flyovers at 10 latitude bands over eastern Australia. These are illustrated in Figure 3.4 below.

Figure 3.4 Eastern Australian Waterbird Aerial Survey bands



Source: Centre for Ecosystem Science, *Eastern Australian Waterbird Survey*, 2023, <<https://www.unsw.edu.au/research/ecosystem/our-research/rivers-and-wetlands/eastern-australian-waterbird-survey>> accessed 16 July 2023.

The survey was initiated in 1983 with the Queensland, New South Wales, Victoria and South Australian Governments, the Commonwealth Government and the CSIRO administering the program.

Professor Richard Kingsford, Director of the Centre for Ecosystem Science at the University of New South Wales explained at a public hearing the need for the cooperation of governments along the eastern seaboard:

The reason the aerial survey started with all the eastern states and the CSIRO in the early 80s was that there was a recognition that these ducks did not take any notice of state boundaries.²⁴

²⁴ Professor Richard Kingsford, Director of the Centre for Ecosystem Science, University of New South Wales, public hearing, Melbourne, 26 May 2023, *Transcript of evidence*, p. 2.

The New South Wales National Parks and Wildlife Service ran the program between 1987 to 2004. It has been overseen by the University of New South Wales since 2005. The survey is used to monitor changes to Ramsar wetlands and provides information on biodiversity and ecosystem health, including on waterbirds, wetlands and rivers.

3.3.2 Interim Harvest Model

The Interim Harvest Model is used to inform Victoria's annual duck hunting season arrangements. The model was developed by Australian Professors Marcel Klaassen and Richard Kingsford, who were both members of the 2019 expert panel reviewing a revised approach to implementing the Adaptive Harvest Management (discussed in Section 3.3.3 below).

The model analyses the relationship between duck abundance and habitat availability for eastern Australia. It uses long running duck population data to understand the relationship between abundance and habitat availability producing information on the current population status and recommending a daily bag limit for the upcoming season.²⁵

However the model notable limitations. As Klassen and Kingsford note in their 2021 report:

The number of ducks in Victoria and SE Australia are unknown and, despite the best of efforts and the use of advanced technology, likely also impossible to know with great accuracy. Next-best is a good estimate of duck numbers and status of the landscape informing on their breeding potential.²⁶

Consequently, three other types of data sources are used to aid the model. These are:

- Victorian hunting bags: data from opening weekend has been collected since 1973 and may be considered a proxy for game population.
- Game-duck-species counts across Australia: these began in 1987 and include data from over 100 wetlands annually.
- The Eastern Australian Aerial Waterbird Survey.

Klassen and Kingsford maintain that:

aerial counts can be directly used as proxies for actual game numbers for Victoria and the whole of SE Australia, given that the survey is conveniently timed, a few months prior to when hunting arrangements for the upcoming hunting season are called and has used a consistent methodology.²⁷

²⁵ Game Management Authority, *Duck Research*, 2023, <<https://www.gma.vic.gov.au/research/duck-research>> accessed 18 July 2023.

²⁶ Marcel Klaassen and Richard Kingsford, *Relationships among duck population indices and abiotic drivers to guide annual duck harvest management*, 2021, p. 7.

²⁷ Ibid.

The Victorian Government is moving towards the adoption of an adaptive harvest model which is outlined in the following section.²⁸

3.3.3 Adaptive harvest management

Adaptive harvest management utilises a scientific approach to derive wild duck population's potential for harvest. This approach accounts for regulatory control, the impact of environmental, social, and economic factors as well as uncertainties in the decision-making process.²⁹

Dr Dave Ramsey, Principal Scientist, Program Leader Wildlife Management at the Arthur Rylah Institute for Environmental Research, explained at a public hearing:

Adaptive management acknowledges that management decisions often have a large uncertainty around their effects, and adaptive management is a way of making robust decisions in the face of that uncertainty. In terms of adaptive harvest management, some of the uncertainties that we would like to know about are about the capacity of duck populations to support harvest. What level of harvest duck can populations support over the long term and still maintain a viable population? How do managers regulate harvest levels? Some of the instruments that managers use to regulate duck harvests include changes in daily bag limits and season lengths, so it is a bit uncertain what effect those might have on harvest levels. Adaptive management is an instrument that allows managers to learn about how changing those things could change harvest levels in game ducks. The other thing is adaptive management also acknowledges that duck populations are subject to other factors that affect their numbers, like environmental conditions such as droughts, climate change or water regulation. Adaptive management allows for this, and it helps managers understand what effects those environmental changes might have on duck populations and also the additional effect of harvest.³⁰

The goal of incorporating scientific approaches to regulate seasonal hunting arrangement is to enhance public confidence in regulatory measures.

In Victoria, harvest modelling was first recommended in 2010 in a report from an expert panel of scientists from Australia, New Zealand and the United States. The panel was convened to assess whether sustainable waterfowl harvesting could be improved through robust scientific methods.³¹

²⁸ Dr Dave Ramsey, Principal Scientist, Program Leader Wildlife Management, Arthur Rylah Institute for Environmental Research, public hearing, Melbourne, 21 June 2023, *Transcript of evidence*, p. 10.

²⁹ David Ramsey, et al., *Towards the implementation of adaptive harvest management of waterfowl in south-eastern Australia* Victorian Government, Heidelberg, Victoria, 2017.

³⁰ Ramsey, *Transcript of evidence*, pp. 1–2.

³¹ Klaassen and Kingsford, *Relationships among duck population indices and abiotic drivers to guide annual duck harvest management*, p. 7.

This expert panel recommended adopting an adaptive harvest management model (based on the North American model)³² and developed prototype models of population dynamics.

The panel's recommendations were not implemented at the time.

As part of the Sustainable Hunting Action Plan, the Victorian Government made a commitment in 2016 to adopt adaptive harvest management for duck hunting. This commitment led to a comprehensive review of the recommendations outlined in the 2010 report, as well as the incorporation of advancements in monitoring technology.³³

Based on a review conducted in 2017, it was recommended to adopt a revised approach to modelling and establish a monitoring program to effectively facilitate the implementation of an adaptive harvest management program.

The Victorian Government formed another expert panel in 2019 to evaluate the findings and recommendations presented in the 2017 report. The panel's report maintained that:

harvest management models can provide key benefits by reducing uncertainties for hunters and other stakeholders, and that the suggested population monitoring and modelling framework is theoretically sound and appropriate.³⁴

The Government supported all recommendations of the report aside from undertaking modelling of waterfowl relative abundance using historical datasets. In its response to the report, it wrote:

Issues with data suitability, resource cost and interstate experience in attempting to use existing datasets suggest this approach might not provide a cost-effective contribution in the Victorian context.³⁵

The use of adaptive harvest management and the Interim Harvest Model in Victoria is discussed further in Chapter 4.

3.3.4 Priority waterbird count

The Victorian priority waterbird count is a statewide survey of game duck species and other selected waterbird species on popular duck hunting wetlands. It is conducted each year in the lead up to the Victorian duck hunting season.

³² The adoption of adaptive resource management for regulating duck harvests in the United States occurred in 1995. For details on this model, see *Adaptive Harvest Management*, <<http://fwf.ag.utk.edu/mgray/wfs560/AdaptiveHarvestManagement.pdf>> accessed 14 July 2023.

³³ Klaassen and Kingsford, *Relationships among duck population indices and abiotic drivers to guide annual duck harvest management*, p. 4.

³⁴ Thomas Prowse, Sue Briggs, Rosie Cooney, Richard Kingsford, et al., *Waterfowl adaptive harvest model: expert panel review report*, 2019.

³⁵ Department of Jobs, Precincts and Regions *Response to the Waterfowl Adaptive Harvest Model: Expert Panel Review*, Victorian Government, 2021, p. 2.

In 2023, a count was carried out between 7 and 20 February 2023. However revisits were conducted to a subset of wetlands during mid-late March because of the delayed season opening.³⁶

The key results of the 2023 count included:

- the total count of the eight game species of ducks was 28% of the long-term mean
- the low numbers of ducks in Victoria was presumably the result of extensive floods in northern New South Wales and Queensland, creating a breeding habitat that attracted waterbirds from other areas of south-eastern Australia
- 17 Freckled Ducks were counted in the initial count, however 246 were subsequently counted at Lake Buloke in early May 2023
- 10 wetlands were identified as warranting extra management attention during the 2023 duck hunting season.³⁷

3.4 Wetland closures

There are over 20,000 natural wetlands in Victoria covering an estimated total area of over 614,000 hectares. The majority, 69 per cent of these wetlands are on private land. Victoria also has a further 11,000 man-made wetlands.³⁸

On certain occasions, specific wetlands or sections of wetlands may be temporarily closed to duck hunting, or additional regulations may be imposed to safeguard rare or threatened species from disturbance or the risk of accidental shooting.³⁹ Any wetlands can be closed to duck hunting temporarily (for up to 12 months) under s 86 the Wildlife Act via gazetted notice.

Before issuing a wetlands closure notice, the Game Management Authority in consultation with the Department of Energy, Environment and Climate Action will assess information from the priority waterbird count and inspect wetlands. The Game Management Authority will then provide a recommendation to the Ministers on closure of the wetlands. Figure 3.5 below describes the process in further detail.

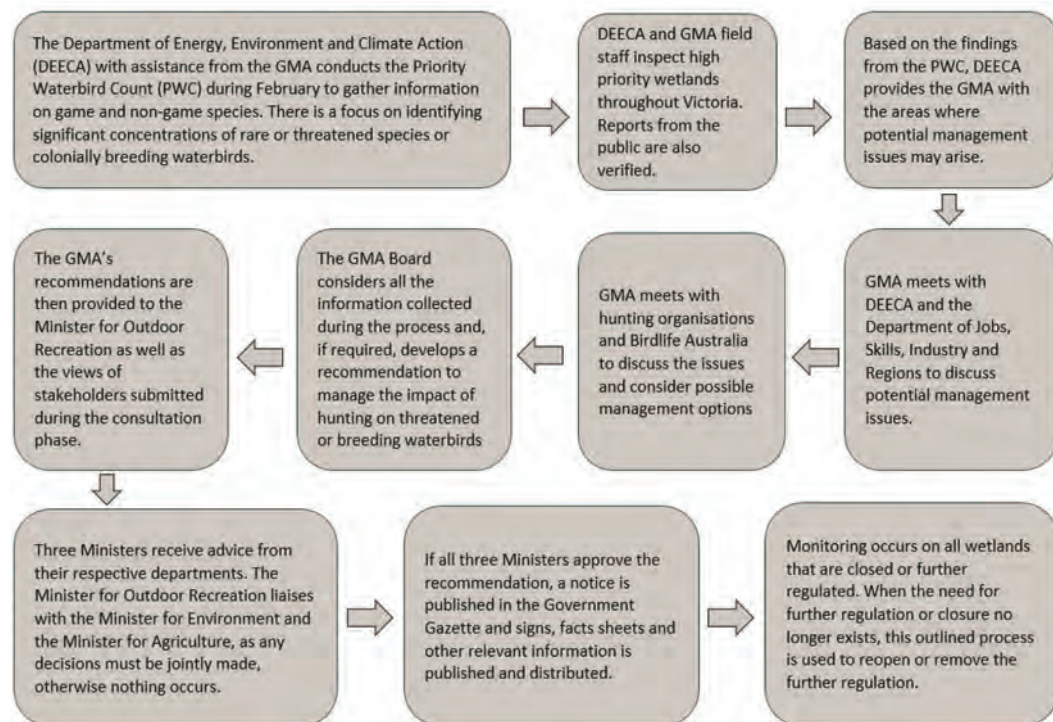
³⁶ Victorian Duck Season Priority Waterbird Count, 2023, p. 1

³⁷ Geoff Brown Peter Menkhorst, Kasey Stamation, *Victorian duck season priority waterbird count, 2023*, report for Department of Energy, Environment and Climate Action, Victorian Government, Heidelberg, 2023.

³⁸ Dr Liz Walker, Chief Executive Officer, RSPCA Victoria, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 16.

³⁹ Game Management Authority, *Wetland closures – 2023 duck season*, 2023, <<https://www.gma.vic.gov.au/hunting/duck/wetland-closures-duck-season>> accessed 18 July 2023.

Figure 3.5 Process for evaluation of wetlands for closure process



Source: Game Management Authority, *Wetland closure process*, <<https://www.gma.vic.gov.au/hunting/duck/wetland-closures>> accessed 18 July 2023.

In addition, s 86A of the *Wildlife Act 1975* provides emergency powers for immediate closure of any area for up to 7 days. To issue the notice, the Ministers must be satisfied that any threatened wildlife or significant numbers of threatened wildlife are under immediate threat from hunting or the presence of hunters.

Issues relating to closure of wetlands for threatened species is discussed further in Chapter 4.

3.5 The role of government agencies

Native bird hunting is primarily overseen by the Game Management Authority. However, several other government agencies and departments oversee other aspects such as land management, environmental policy, research and enforcement.

3.5.1 Game Management Authority

The Game Management Authority is established under the *Game Management Authority Act 2014*. It is an independent government agency entrusted with regulatory, investigative, and disciplinary responsibilities relating to the hunting of game animals.

The Game Management Authority is the primary regulator for compliance and enforcement of native bird hunting. This includes enforcing restrictions on hunting endangered species in accordance with the *Flora and Fauna Guarantee Act 1988*.

The Game Management Authority also has the authority to propose seasonal closures of public lands for hunting. The decision to allow hunting on private lands is at the discretion of the landowners.

The Game Management Authority is responsible for monitoring compliance and enforcing penalties in cases of violations. Authorised officers have authority to confiscate any item that they suspect to be involved in a game hunting violation. Typically, this includes hunting gear and vehicles (including boats).⁴⁰

The Game Management Authority also has the power to enter private land if it has received intelligence that a hunt is planned.

The functions of the Game Management Authority were reviewed in a 2017 report by Pegasus Economics. The report found it to be ineffective in its compliance enforcement responsibilities due to resourcing constraints, regulatory complexity and weaknesses in its governance arrangements. The Game Management Authority has since made significant progress implement the report's recommendations.⁴¹ The Pegasus Report and compliance issues are discussed further in Chapter 6.

The Game Management Authority provides data for hunting maps on the MapshareVic website. Users can create maps showing where hunting game and pest species is permitted on public land.

The agency also runs educational programs for hunters including online game hunting education modules.⁴²

At the time this report was adopted, the Minister for Outdoor Recreation held portfolio responsibility for recreational hunting and was the Minister in charge of the Game Management Authority.

In 2022, the Game Management Authority received \$8.7 million in funding from the Victorian Government. This funds 34 full-time equivalent staff, including 19 field staff.⁴³

3.5.2 The role of Ministers

At the time this report was adopted, the Minister for Outdoor Recreation, the Minister for Environment, and the Minister for Agriculture jointly oversaw key provisions of the *Wildlife Act 1975* relating to native bird hunting.

40 Game Management Authority, *Compliance Strategy 2020 – 2025*, <https://www.gma.vic.gov.au/_data/assets/pdf_file/0019/508042/GMA0015_ComplianceEnforcementPolicy_2019_v13.pdf> accessed 15 July 2023.

41 The progress update can be found here Game Management Authority, *Pegasus report progress reporting*, 2022, <<https://www.gma.vic.gov.au/about-us/gma-reporting-and-governance/pegasus-report-progress-reporting>> accessed 15 July 2023.

42 Game Management Authority, *New online education modules*, 2023, <<https://www.gma.vic.gov.au/education/online-learning-materials>> accessed 14 July 2023.

43 Game Management Authority, *Annual Report 2021 – 22*, Victorian Government, p. 30.

The Ministers share joint responsibility and authorisation for implementing seasonal modifications, such as:

- the prohibition of hunting specific game species adjustments.
- season duration.
- bag limits.
- modifications to hunting times within the season opening.

Any statutory decisions made under the Act or regulations require the approval of all three Ministers.

3.5.3 Department of Energy, Environment and Climate Action

The Department of Energy, Environment and Climate Action manages Victoria's groundwater, catchments and waterways. This includes conducting research to inform the development of guidelines, tools and methods to manage Victoria's wetlands.

The Department coordinates the annual priority waterbird count which provides data on the presence of threatened species and breeding waterbirds to inform the closure of any wetlands. It maintains online spatial maps which identify where hunting is permitted and is responsible for determining public land classifications and the permitted activities that can occur on such land, including hunting.

The Department also administers the Arthur Rylah Institute for Environmental Research. The Institute is an independent agency that conducts environmental research including yearly abundance counts of native ducks and quail.

The Department also provides authorised officers to assist the Game Management Authority in compliance during duck season.⁴⁴

The Department provides policy advice in relation to wildlife management and threatened species recovery. It administers the *Wildlife Act 1975*, *Wildlife Regulations 2013* and *Wildlife (State Game Reserve) Regulations 2014*. It works with the Department of Jobs, Skills, Industry and Regions and the Game Management Authority to prescribe seasonal arrangements⁴⁵ and to further mitigate risks that may emerge leading up to the season opening or during the season. For example, closure or further regulation of hunting at wetlands holding significant numbers of threatened species.

⁴⁴ Game Management Authority, *Responsibilities for game management and hunting in Victoria*, 2023, <<https://www.gma.vic.gov.au/Laws.-Policies-and-Strategies/laws/responsibilities-for-game-management-and-hunting-in-victoria>> accessed 18 July 2023.

⁴⁵ See for example Authority, *Recommendations for the 2023 duck season arrangements*; Authority, *Duck season considerations*.

3.5.4 Department of Jobs, Skills, Industry and Regions

The Department of Jobs, Sport, Industry and Resources is responsible for developing game, animal welfare and pest animal policy in Victoria.⁴⁶ It provides support to the Minister for Outdoor Recreation in their portfolio responsibilities related to native bird hunting.

The Department is responsible for preparing documentation, such as gazettal notices, to establish annual recreational native bird hunting seasons, make modifications to seasons, and, if necessary, implement emergency wetland closures.

Additionally, the department plays a coordinating role⁴⁷ collaborating with other departments, agencies, and the Game Management Authority on matters concerning native bird hunting.⁴⁸ This collaboration involves setting policies, plans, and strategies, as well as addressing Ministerial powers related to recreational native bird hunting.

3.5.5 Other agencies

Parks Victoria

Parks Victoria manages parks and most reserves in Victoria and the hunting that takes place on these lands. National Parks and State Game Reserves are two categories of lands that Parks Victoria manages.

Parks Victoria is responsible for the enforcement of hunting and firearms carriage and use laws on these lands.⁴⁹

Victoria Police

Victoria Police is responsible for regulating and licensing the sale, ownership, possession, storage and use of firearms and controlled weapons in Victoria under the *Firearms Act 1996* and the *Control of Weapons Act 1990*.⁵⁰

The most popular form of firearm licence in Victoria are those issued for the purpose of hunting. This includes Category A and B Longarm licences. To hunt game birds, hunters must hold a firearm licence in addition to a game hunting licence.

⁴⁶ Game Management Authority, *Responsibilities for game management and hunting in Victoria*.

⁴⁷ Department of Jobs, Skills, Industry and Regions *Game Hunting in Victoria*, 2022, <<https://djsir.vic.gov.au/game-hunting>> accessed 17 July 2023.

⁴⁸ Game Management Authority, *2023 Duck season compliance summary*, 2023, <<https://www.gma.vic.gov.au/media-releases/2023/2023-duck-season-compliance-summary>> accessed 15 July 2023.

⁴⁹ Game Management Authority, *Responsibilities for game management and hunting in Victoria*.

⁵⁰ The objective of this *Act* is to govern the regulation of weapons other than firearms. It also regulates body armour.

3.6 Other Australian jurisdictions

Native bird hunting regulations differ between Australian jurisdictions. At the time of writing, there were recreational hunting season openings in Victoria, the Northern Territory, Tasmania, and South Australia.

Many stakeholders opposed to native bird hunting described Queensland, Western Australia and New South Wales as having ‘banned’ native bird hunting. However others noted that although these states had removed the specified season opening, native bird hunting was still permitted under various circumstances.

Table 3.4 below gives an overview of these arrangements.

Table 3.4 Overview of regulatory arrangements for native bird hunting in Australia

Jurisdiction	Summary	Relevant Bodies/Agencies	Relevant Legislation
Australian Capital Territory	Native bird hunting has never been permitted in the ACT. Recreational hunting is limited to vermin control on rural land.	<ul style="list-style-type: none"> Parks ACT Environment, Planning and Sustainable Development Directorate 	<ul style="list-style-type: none"> <i>Firearms Act 1996</i> (ACT) <i>Nature Conservation Act 2014</i> (ACT)
New South Wales	Recreational hunting of native game birds was put to an end on public lands and public waterways. Native game bird hunting is allowed for individuals licensed and endorsed for the private land NSW Native Game Bird Management Program.	<ul style="list-style-type: none"> NSW National Parks and Wildlife Service Department of Primary Industries 	<ul style="list-style-type: none"> <i>Biodiversity Conservation Act 2016</i> (NSW) <i>Game and Feral Animal Control Act 2002</i> (NSW) <i>Game and Feral Animal Control Regulation 2022</i> (NSW) <i>NSW Game Hunting Licence Code of Practice</i>
Northern Territory	Hunting for magpie geese and certain native duck species is permitted during the official gazetted hunting season. Hunters can hunt on public and private land. On private land, hunters are required to have express permission from the landholder. Hunters must have a Waterfowl Hunting Permit. This includes any waterfowl hunting on private and public land. Firearm users must have an NT shooters licence or equivalent interstate licence.	Department of Environment, Parks and Water Security	<ul style="list-style-type: none"> <i>Territory Parks and Wildlife Conservation Act 1976</i> (NT) <i>Firearms Act 1997</i> (NT)
Queensland	Recreational hunting of native ducks and quails is prohibited.	Department of Environment and Science	<ul style="list-style-type: none"> <i>Nature Conservation Act 1992</i> (QLD) <i>The Nature Conservation Amendment Bill 2006</i> amended the Nature Conservation Act to prohibit native duck and quail hunting.

Jurisdiction	Summary	Relevant Bodies/Agencies	Relevant Legislation
South Australia	<p>South Australia has designated season openings for recreational duck and quail hunting.</p> <p>Duck hunting requires a permit during season openings. Hunters are also required to pass a Waterfowl Identification Test to obtain a permit.</p> <p>Stubble quail is the only native breed that can be hunted in the state. A quail hunting permit is required.</p> <p>The South Australian Legislative Council has established a select committee to review its native bird hunting arrangements.</p>	Department for Environment and Water	<ul style="list-style-type: none"> • <i>National Parks and Wildlife Act 1972</i> (SA) • <i>National Parks and Wildlife (Wildlife) Regulations 2019</i> (SA) • <i>National Parks and Wildlife (National Parks) Regulations 2016</i> (SA) • <i>National Parks and Wildlife (Hunting) Regulations 2011</i> (SA)
Western Australia	<p>Western Australia was the first state in Australia to end duck hunting as a sport in 1992.</p> <p>However, shelducks and wood ducks are declared pests of agriculture under the <i>Agriculture and Related Resources Protection Act 1976</i> and are allowed to be hunted under certain circumstances.</p>	Department of Primary Industries and Regional Development	<ul style="list-style-type: none"> • <i>Conservation and Land Management Act 1984</i> (WA) • <i>Biodiversity Conservation Act 2016</i> (WA) • <i>Agriculture and Related Resources Protection Act 1976</i> (WA) • Duck, geese and quail shooting was ended through the <i>Acts Amendment (Game Birds Protection) Act 1992</i> (WA).
Tasmania	<p>Certain species of native ducks and the brown quail are allowed to be recreationally hunted during season openings.</p> <p>A recreational game licence is required to hunt native game birds. Hunters are required to pass a Waterfowl Identification Test.</p>	Department of Natural Resources and Environment	<ul style="list-style-type: none"> • <i>Nature Conservation Act 2002</i> (Tas) • <i>Nature Conservation (Open Seasons) Order 2004</i> (Tas) • <i>Nature Conservation (Wildlife) Regulations 2021</i> (Tas)

Source: Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

Case Study 3.1 New South Wales

In New South Wales, recreational hunting of native game birds is banned on public lands and public waterways.

However, there is a recognition that game can have impacts on agricultural production, the environment and communities and hunting is recognised as one of a number of tools used in the management of game.

Consequently, native game bird hunting is allowed for individuals licensed and endorsed for the private land NSW Native Game Bird Management Program. This includes managed agricultural land that is licensed under the Program. The Program began in 2014 and is managed by the New South Wales Department of Primary Industries Game Licensing Unit.

Hunters are required to have a Restricted or General Game Hunting Licence that is endorsed for hunting native game birds. They are required to hold a current Category A or B firearms licence endorsed for Recreational Hunting/Vermin Control or Primary Production.

Land holders are required to have a Native Game Bird Management (Owner/Occupier) Licence. There is no fee to acquire this licence. Land holders can also list their details on a Landholder Register if they want to be contacted by licensed hunters, but this is not a requirement.^a

The objective of the Program is to ensure that landholders can protect their crops from native varieties of game duck species, while also ensuring that such native game duck populations are sustainable and viable into the future.^b

To do this, harvest levels (quotas) are set by the Program based on surveys and data on regional duck populations.^c Abundance and population dynamics that respond predictably to climatic changes are important factors that influence harvest quotas resulting in different quotas set for each species.^d

Duck hunting in New South Wales mostly takes place on rice farms.

The Program sets out a framework that ‘allows licensed, responsible volunteer hunters to help landholders manage the impacts of native game birds over their agricultural lands’.^e

(Continued)

Case Study 3.1 continued

Hunters are required to secure permission, either in written or verbal form, from a landholder who possesses an owner/occupier licence. Permission to enter land for hunting game ducks is a mandatory condition of the New South Wales Game Hunting Licence Code of Practice. Hunters are also required to pass a Waterfowl Identification Test before they can take part in the program.

A licence is required to hunt non-indigenous game animals on public or private land.

- a. Department of Primary Industries, *Native game bird FAQs*, 2023 <<https://www.dpi.nsw.gov.au/hunting/game-and-pests/native-game-birds/native-game-bird-faqs>> accessed 18 July 2023.
- b. Department of Primary Industries, *Don't wing it*, 2023, <https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0008/748655/dont-wing-it-booklet.pdf> accessed 17 July 2023.
- c. Department of Primary Industries, *Native game bird quotas*, 2023, <<https://www.dpi.nsw.gov.au/hunting/game-and-pests/native-game-birds/native-game-bird-quotas>> accessed 18 July 2023.
- d. Stephen McLeod, *2022-2023 Annual Waterfowl Quota Report to NSW DPI Hunting*, report for NSW Department of Primary Industries, NSW Government.
- e. Department of Primary Industries, *Native game birds*, 2023 <<https://www.dpi.nsw.gov.au/hunting/game-and-pests/native-game-birds>> accessed 16 July 2023.

Chapter 4

Environmental and economic issues

Australian native fauna is unique and should be afforded special care to ensure long term sustainability. The Committee's decision to recommend and end to recreational native bird hunting was motivated largely by its environmental impact. Native bird populations across Australia are in long term decline and population bursts during wet seasons have not offset declines from dry and drought periods. In addition, there is a considerable risk during open season that threatened and non-game species will be disturbed, wounded or killed. Whilst the Committee acknowledges this is usually inadvertent, it presents an unacceptable risk to Victorian native fauna.

Although deaths from bird hunting may comprise a relatively small number in relation to total bird population numbers, in the Committee's view we should not be placing additional pressure on already strained native fauna.

The Committee is also concerned about the impact of historical habitat loss, including environmental effects caused by climate change and the impacts of environmental conditions in the upper Murray–Darling Basin.

The Committee wishes to acknowledge the considerable conservation work conducted by hunters, most of whom are volunteers. Their efforts have revitalised barren lands into wetlands that are now home to many different species of flora and fauna.

The Committee also considered the economic impact of native bird hunting. There is little data available, and what is available varies considerably on the total impact on the Victorian economy. Whilst there is a clear direct benefit to some regional towns in Victoria, the Committee was not presented with evidence to suggest that ending native bird hunting would have a significant economic impact.

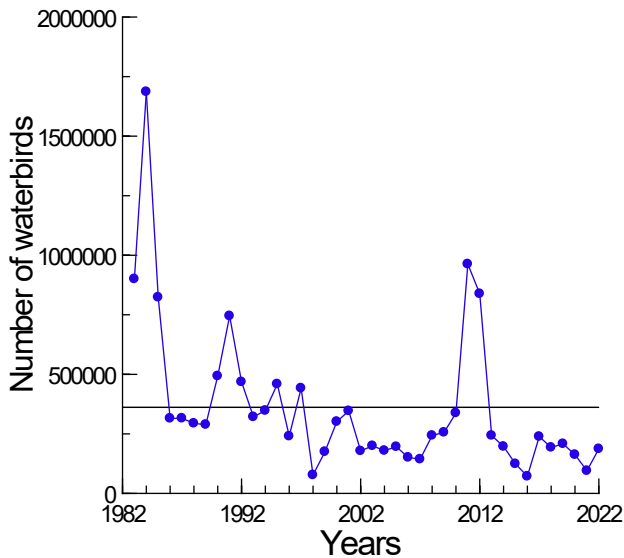
4.1 Environmental impacts of native bird hunting

Although deaths from native bird hunting may comprise a relatively small number in relation to total bird populations, the Committee is concerned about the long-term trends of decline. These are evident in both the Eastern Australian Waterbird Aerial Survey and the Victorian priority waterbird count.

4.1.1 Population trends in Victorian native birds

Native waterbird populations have shown a decline over the long term since the Eastern Australian Waterbird Aerial Survey began in 1983, primarily due to habitat loss and climate change as mentioned by Professors Kingsford and Klaasen. Figure 4.1 below illustrates the population decline measured by the Eastern Australian Waterbird Aerial Survey.

Figure 4.1 Changes over time in total abundance of breeding species in the Eastern Australian Waterbird Aerial Survey (1983–2022)



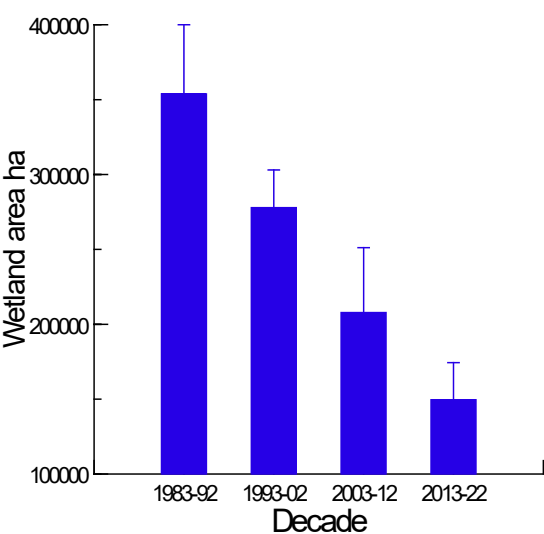
Source: Porter, J.L., R.T. Kingsford, R. Francis, K. Brandis and A. Ahern, 2022 *Eastern Australian Waterbird Aerial Survey: Annual summary report*, Centre for Ecosystem Science, University of NSW, 2022, p.4

Although the majority of birds counted by the survey are non-native, this shows a general trend that extends to native birds.

While waterbird populations have increased in years with accommodating conditions such as good rainfall, the trend however is directed towards decline.

Data from the Eastern Australian Waterbird Aerial Survey shows a reduction in total wetlands area covered by the survey bands, illustrating a total habitat loss over time. This is illustrated in Figure 4.2 below.

Figure 4.2 Decade average of wetland area (hectares) in the Eastern Australian Waterbird Aerial Survey (1983–2022)



Source: Porter, J.L., R.T. Kingsford, R. Francis, K. Brandis and A. Ahern, 2022 *Eastern Australian Waterbird Aerial Survey: Annual summary report*, Centre for Ecosystem Science, University of NSW, 2022, p. 7.

Similarly, the 2023 Victorian priority waterbird count found the total count of game duck was 25% of the average for the past decade.¹

4.1.2 Habitat loss

Key stakeholders also recognised the primary driver of waterbird population decline was habitat loss. At a public hearing the Committee heard evidence from Professor Richard Kingsford, a river ecologist and conservation biologist who has worked extensively with government agencies on waterbird research. He explained that:

These are long-term declines. The analogy that I quite often use to explain what is going on is if you can imagine waterbirds, and actually lots of things, like fish as well, in our river systems having these bounce-backs, a bit like in the natural system – a superball would bounce back to the same level. Now, what we are seeing with these long-term agricultural practices is that those bounces are still happening, but they are more like a tennis ball. They are just not as high as they used to be, and therefore we are seeing that declining bounce over time.²

Unregulated consumption of water in the Murray-Darling Basin has compounded issues of water shortage accelerating habitat loss of waterbirds. The Murray-Darling Basin is home to 16 internationally significant wetlands, 35 endangered species and 120 different species of waterbirds.³ Adequate water supply in the Basin is critical to ensuring long-term ecological sustainability. However, the Basin Plan's implementation has been delayed by delays over issues of water sharing, problems in large-scale coordination across multiple jurisdictions and conflict in matters of water governance.

Dr Holly Sitters, an ecologist who gave evidence at a public hearing, noted that the loss of freshwater habitat is a global problem and that the impact of this loss has been profound across ecosystems around the world:

based on data from 6000 populations comprising over a thousand species of bird, mammal, amphibian, reptile and fish. The Living Planet Report shows that populations in the freshwater living planet index have been hit the hardest. They host a rich biodiversity, including a third of vertebrate species, despite covering less than 1 per cent of the planet. Major threats that have driven this colossal decline include water extraction and pollution as well as hunting, fishing and a heating and drying climate. Only this past week a paper was published in Science showing that more than half of the world's lakes have shrunk over the past 30 years due to climate warming.⁴

In contrast, Dr Brian Hiller, a professor of wildlife biology at Bemidji State University, described the cycle as a 'boom-bust'. He believed that native birds could be appropriately harvested through managing a 'core breeding population':

¹ Geoff Brown Peter Menkhorst, Kasey Stamation, *Victorian duck season priority waterbird count, 2023*, report for Department of Energy, Environment and Climate Action, Victorian Government, Heidelberg, 2023, p. 11.

² Professor Richard Kingsford, Director of the Centre for Ecosystem Science, University of New South Wales, public hearing, Melbourne, 26 May 2023, *Transcript of evidence*, p. 3.

³ Australian Government, *The Basin*, 2023, <<https://www.mdba.gov.au/basin>> accessed 8 August 2023.

⁴ Dr Holly Sitters, public hearing, Melbourne, 26 May 2023, *Transcript of evidence*, p. 55.

What happens when all those extra birds are produced ... they might produce 15, 16 or 18 ducklings that survive to fledging age ... when the bust comes, you are going to shrink back to your core breeding population. As you were just mentioning, one of the things in terms of a cautionary approach when those busts happen is to be more conservative in your approach to the harvest. You do not want to harvest the core breeding population; you want to harvest the stuff that gets produced above that. That is really where that boom-bust comes in. That boom produces a lot of extra birds that at some point – when the bust comes – are going to die. The question is simply: how, and what is going to be the cause of mortality.⁵

Professor Kingsford noted that native bird hunting, has a very small impact on native bird populations:

The fundamental issue here is that we have been losing waterbird habitat, wetland habitat, over decades as a result of increasing extractions and regulation of the rivers for the Murray-Darling, and we see that in the impacts on freshwater organisms that rely on those flows. At the same time, we also investigated whether there was any effect of hunting on those species, and we found a very small effect, which was considerably overridden by the loss of habitat effect.⁶

This was also conceded by Dr Holly Sitters. However she noted that an end to native bird hunting would reduce the rate of decrease in populations.⁷

Lucas Cooke, Chief Executive Officer of Field & Game Australia, said that there had been no ‘massive increase’ in game bird species in New South Wales since the state ended duck hunting. He also believed that wetlands management advocated by hunter-conservationists would help to increase waterbird populations:

A catchment management authority that is trying to make a wetland survive can put water into those temporary shallow wetlands once every five years, and the wetland will survive and still be a wetland. But birds will not thrive, because obviously an Australian native duck that lives three to five years needs water more than once every five years to breed and thrive. When you have hunters advocating for wetlands and managing for abundance and they are trying to make sure those wetlands get environmental water flows once every two or three years, that is when we see ducks and other waterbirds thrive.⁸

Dr Sitters detailed the current phase in climatic cycle and informed the Committee about the expected arrival of an El Niño climate phase, which is set to bring hotter and dryer conditions:

We have had three wet years, I think it is now, and so the status of things currently is looking pretty good. But we have also heard a lot about El Niño, which is due to return later in the year, I think current predictions are, and is expected to stay around for a

⁵ Dr Brian Hiller, public hearing, Melbourne, 26 May 2023, *Transcript of evidence*, p. 43.

⁶ Professor Richard Kingsford, *Transcript of evidence*, p. 2.

⁷ Dr Holly Sitters, *Transcript of evidence*, p. 58.

⁸ Mr Lucas Cooke, Chief Executive Officer, Field and Game Australia, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 9.

while, and of course that will lead to completely different conditions to what we are seeing now.⁹

The Committee recognises that deaths from native bird hunting may constitute a relatively small number in relation to total populations of native birds, however the Committee is particularly concerned with the downward trends in native bird populations since the Eastern Australia Waterbird Aerial Survey for the past 40 years.

In the context of decreasing habitat and the impacts on the environment caused by climate change and water management, native bird hunting puts undue pressure on already strained bird populations.

4.1.3 Assessment of the interim harvest model on ensuring population sustainability

As discussed previously, adaptive harvest management is concerned with using data to inform decision making. This method is based on continuous monitoring and learning from the outcomes of previous management actions. Professor Kingsford explained that:

We have got more and more sophisticated in terms of translating that data into decision-making, and the adaptive harvest model is the most recent sophistication of that. Certainly it gives me a lot more confidence than I had in the past that we are moving to a more rigorous basis for managing duck hunting.¹⁰

The Interim Harvest Model was used in setting arrangements for the 2022 and 2023 native duck hunting season.

At a public hearing, the Committee heard evidence from Dr Dave Ramsey, Principal Scientist, Program Leader Wildlife Management, Arthur Rylah Institute for Environmental Research. He described how adaptive harvest management is used to control harvest levels based on changing population levels caused by different factors:

some of the uncertainties that we would like to know about are about the capacity of duck populations to support harvest. What level of harvest duck can populations support over the long term and still maintain a viable population? How do managers regulate harvest levels? Some of the instruments that managers use to regulate duck harvests include changes in daily bag limits and season lengths, so it is a bit uncertain what effect those might have on harvest levels. Adaptive management is an instrument that allows managers to learn about how changing those things could change harvest levels in game ducks. The other thing is adaptive management also acknowledges that duck populations are subject to other factors that affect their numbers, like environmental conditions such as droughts, climate change or water regulation. Adaptive management allows for this, and it helps managers understand what effects

⁹ Dr Holly Sitters, *Transcript of evidence*, p. 57.

¹⁰ Professor Richard Kingsford, *Transcript of evidence*, p. 9.

those environmental changes might have on duck populations and also the additional effect of harvest.¹¹

The Sporting Shooters Association of Australia (Victoria) support the use of this model to determine hunting season arrangements. The organisation stated:

Since its inception, SSAA Victoria has supported decisions on seasonal variations based entirely on the recommendations from the IHM. Although imperfect, the IHM provides a clear objective framework that ensures sustainability and favours full-length hunting seasons.¹²

Other stakeholders were concerned about the application of adaptive harvest management and the use of the Interim Harvest Model. Many noted that the model itself does not set a baseline for an acceptable population of birds. Rather, it is used to set the harvest levels for a season no matter how low the populations are though harvest levels can be set to zero should the science dictate this.

For example, Animals Australia argued that the model provides ‘false hope’ and ‘a more objective assessment would have noted the difficulties and vagaries of AHM for Victorian bird shooting.’¹³

In its submission, Regional Victorians Opposed to Duck Shooting criticised the model as ‘basing its predictors on the past 30 years of hunting seasons ... which have resulted in our game ducks now being at just 25% of their long-term average’. It also noted that since 1958 whilst overall season lengths have increased, the bag limit for game birds had increased from 5 to 8.¹⁴

At a public hearing Sean Dooley, Public Affairs Manager, BirdLife Australia, had similar concerns. He noted the additional pressures caused by bird hunting given the decline in total populations:

they do not deal with shifting baseline syndrome. So we do not really know under those models what the baseline is that we are trying to regard as sustainable. Are we looking at the 2022 population as the baseline, which we know for a lot of species is 90 per cent less than it was 40 years ago? If that is the case, it is very limited in vision. Are we trying to hold on to what we have got and saying that is okay, or do we go back to a former baseline where waterbirds were far more abundant and saying that is what we want to reach? I think that was interesting – Ms Bath’s comment about the Klaassen report and Kingsford report, saying the impact of hunting, the direct impact, may not be any greater in terms of number of birds than it was 40 years ago. But the pool of birds that are there available to be shot is infinitesimally smaller, so the impact of hunting has become proportionally greater. That is the thing that really concerns us. We are seeing this with other groups of birds, like the migratory shorebirds, which have

11 Dr Dave Ramsey, Principal Scientist, Program Leader Wildlife Management, Arthur Rylah Institute for Environmental Research, public hearing, Melbourne, 21 June 2023, *Transcript of evidence*, pp. 1–2.

12 Sporting Shooters Association Australia (Victoria), *Submission 1,875*, p. 16.

13 Animal Australia, *Submission 1,590*, p. 11.

14 Regional Victorians Opposed to Duck Shooting, *Submission 1,587*, p. 30.

reduced by 80 per cent in numbers on their migrations between Russia and Australia, and they still have hunting pressures. Fifty years ago those hunting pressures were not a problem because there were so many of them, but when you have so few, those one-off events can really do a lot of damage.¹⁵

The Committee also highlights that although wetland area has increased in the past decade due to wetter conditions, there has not been a relative increase in bird populations.

In the Committee's view the key limitation of the model is that it does not account for the population decline of a species in setting harvest numbers. The model does not provide a cutoff point or baseline to stop hunting to allow a species to recover from an ongoing downward trend.

4.1.4 Impact on threatened and other species

The Committee received evidence of threatened native birds that had been wounded or killed. This included images and video.

The Committee also heard evidence that hunting associations provide training and education to their members to avoid inadvertently shooting threatened species. However, by the nature of bird hunting it is almost impossible to reduce the wounding or kill rates of threatened birds to zero.

Many stakeholders provided evidence that recreational hunting results in disturbances or death of threatened species. Lisa Palma, Chief Executive Officer and Executive Director, Wildlife Victoria gave an overview of her organisation's experience conducting veterinary triage at wetlands:

This year we had across the first five days 22 waterbirds that were still alive when they were brought in. We also saw threatened species – so blue-winged shovellers, hardheads and a freckled duck – that were deceased on arrival but on veterinary assessment and X-ray were also wounded. We also saw in total around 73 birds across the first five days. On examination of those birds – so what happens is the vets assess them and they X-ray them to determine a cause of death. Any that are alive of course we try and save. But of those that were brought in across that period, 67 per cent of the 73 definitively had a cause of death by gunshot wound – so they were birds that had been left in field that were brought into our triage unit. In terms of the wounds, and I give a couple of examples in the submission, there is evidence of shotgun pellets. It is typically broken bones, entry wounds, things like that – but a lot of fractures.¹⁶

Lynn Trakell, Assistant Director for the Coalition Against Duck Shooting believed that rule changes and changes to hunting arrangements have done little to prevent misconduct during the current hunting season towards threatened species:

¹⁵ Mr Sean Dooley, National Public Affairs Manager, Birdlife Australia, public hearing, Sale, 26 June 2023, *Transcript of evidence*, pp. 22–23.

¹⁶ Ms Lisa Palma, Chief Executive Officer and Executive Director, Wildlife Victoria, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, pp. 80–81.

Wherever our rescuers go they find wounded birds, they find illegally shot protected and threatened species, they find illegally buried birds and they find that shooters breach the regulations consistently – wherever we go – so it has not improved, no.

....

Well, I was at the wetlands during the first five days, and all the rescuers there heard shooting start before the legal shooting time. And like I said, one of the first birds that was brought in was a blue-winged shoveler, which is a protected and threatened species, so yes, the non-compliance goes on and on.¹⁷

Laurie Levy, Campaign Director of the Coalition Against Duck Shooting, raised similar concerns, stating:

Last year even, the 8 o'clock start was really good and the midweek opening was really good, but even on the opening morning in 2022 rescuers found threatened species that had been illegally shot, and it was the same again this year. You would have thought that even with duck shooters knowing that their activity is under pressure at the moment, they would not be doing that sort of thing. They still do it.¹⁸

Lynn Trakell highlighted concerns relating to threatened species noting that another issue is the credibility of the data on how many are shot or wounded. Ms Trakell mentioned:

I am really concerned about this because the government and Kingsford rely on figures from shooter surveys. Shooters are not going to say that they have shot above the bag limit. They are not going to own up to shooting and wounding birds that fly away. They are not going to own up to shooting protected and threatened species and burying birds that they have shot over the bag limit. How on earth can they judge how many birds are killed every year, relying on shooter surveys? It is just insane. We actually have no idea at all how many birds are shot. It could be twice as many. Who knows? It could be twice as little.¹⁹

When asked what is an acceptable number of threatened species that may be harmed in a season, representatives of the Sporting Shooters Association of Australia (Victoria) stated 'ultimately, none'. However they conceded it was 'realistically' inevitable.²⁰

Similarly, Lucas Cooke, Chief Executive Officer, Field and Game Australia, maintained that while no threatened or non-game species should be harmed, in reality this is not the case:

We obviously aim for zero. We work pretty hard to educate our members as much as we possibly can. We are probably not going to sit here and say it should be okay if it is five or 10 or 50. I think the aim should always be zero.²¹

¹⁷ Ms Lynn Trakell, Assistant Director, Coalition Against Duck Shooting, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 50.

¹⁸ Laurie Levy, Campaign Director, Coalition Against Duck Shooting, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 50.

¹⁹ Ms Lynn Trakell, *Transcript of evidence*, p. 52.

²⁰ Mr Barry Howlett, *Transcript of evidence*, p. 32; Mr David Laird, *Transcript of evidence*, p. 32.

²¹ Mr Lucas Cooke, *Transcript of evidence*, p. 2.

Mr Cooke explained that he believed the hunting community, the government, and the Game Management Authority do well to collectively enforce compliance on this matter:

I think, generally speaking, very well. Certainly historically this was not the case. Perhaps there was not the care or engagement from hunters in the past. There are certainly some stories from the annals of history of not a lot of care being taken. But currently, right now in 2023, I think hunters are very attuned to needing to take care in this thing. Unfortunately, this year we have still seen instances where obviously people did not take enough care, and we would hope to continue working to reduce those people and remove them from the hunting community or educate them to the point where they do take the utmost care and we could sit here, hopefully, in future years and say zero threatened species have been harmed.²²

Studies in 2019 and 2022 conducted by the Arthur Rylah Institute highlighted concerns that hunting had adverse effects for non-game waterbird species:

In Victoria, the hunting of eight species of native duck (game species) is allowed during a defined open season. Hunting takes place on natural and constructed wetlands that are also habitat for numerous other animal species, some of which may be unintentionally adversely affected by the activities of hunters, especially when large numbers of hunters gather at a wetland. Potential adverse effects (excluding death or injury from shotgun pellets) include: abandonment of nests or young due to the close presence of hunters in areas not normally visited by people, reduced feeding and resting opportunities due to disturbance by noise and movement, increased energy expenditure as a consequence of having to spend longer periods in flight following disturbance and reduced habitat availability resulting from the temporary abandonment of a wetland due to disturbance.²³

The Committee was also notified that Victorian wetlands are home also to a range of nesting or migratory threatened and non-game species affected by game duck hunting. In its submission, Birdlife Australia stated:

Notable threatened or non-game species at risk include Australasian Bittern, Australian Painted Snipe, Brolga, Great and Intermediate Egrets, Blue-billed, Freckled and Musk Ducks as well as flocks of migratory shorebirds feeding in wetlands to fuel up for their departure for the northern hemisphere in late March/early April.

Even if these birds are not directly shot, the disturbance to them in their habitat can have drastic and detrimental effects. Nests may be abandoned, courtship rituals for flocking Brolgas can be disrupted, shy and cryptic species that rely on dense fringing vegetation will be spooked into breaking cover.²⁴

²² Ibid.

²³ Peter Menkhorst, *Assessing waterbird susceptibility to disturbance by duck hunters in Victoria*, Arthur Rylah Institute for Environmental Research, Heidelberg, 2019; Peter Menkhorst and Louise Thompson, *Assessing waterbird susceptibility to disturbance by duck hunters in Victoria (2022 update)*, Arthur Rylah Institute for Environmental Research, Heidelberg, 2022.

²⁴ Birdlife Australia, *Submission 1,606*, p. 8.

Lisa Palma noted that game hunting risks frightening nesting birds and colonies:

Yes, sure. So last year we had reports of swans at Kerang – Lake Bael Bael near Kerang – that had left their nests. Unfortunately, given the time of year, all of those nests had eggs in them. The swans left the nests in fright once they heard the gunshots go off, rendering those eggs unviable, so that is what we mean by losing an entire generation of swans at that location. We were able to save one very small swan that subsequently went into care and was released, but nothing else.²⁵

4.1.5 Wetland closures under the *Wildlife Act 1975*

As noted in Chapter 3, section 86 of the Wildlife Act allows the Ministers²⁶ to declare certain areas closed for native bird hunting, for up to 12 months. Section 86A also provides emergency powers for immediate closure if the Ministers are satisfied a threatened species is under immediate threat due to hunting activity.

In the 2023 season, 18 areas were closed under closure provisions.²⁷

In responses to questions on notice, the Department of Energy, Environment and Climate Action noted signs advising of wetlands closures made under s 86 or 86A of the Act were erected by agencies. However it noted that the Game Management Authority uses other forms of communication²⁸ since signs are occasionally defaced or stolen.²⁹

The Committee heard concerns about the process and speed of closing wetlands as a consequence of the presence of threatened or protected species.

Animals Australia believed that the threshold for triggering wetland closures was ‘too high’. It also noted criticism from regional Victorian residents who complained the Game Management Authority had not properly addressed their concerns that certain wetlands should be closed.³⁰

In contrast, the Sporting Shooters Association of Australia (Victoria) argued that wetland closures should be used only as a last resort. At a public hearing, David Laird, Hunting Development Manager at the association, described the process as ‘opaque’, and advocated for an objective process:

We are very unsure what results we get in different circumstances and actually why they occur. We want to see, and it is one of our recommendations, that there is a clear, objective set of circumstances where wetlands are closed. We do not oppose wetlands being closed in all circumstances, certainly not where there are legitimate concerns and

²⁵ Ms Lisa Palma, *Transcript of evidence*, p. 84.

²⁶ At the time of writing, this was jointly administered by the Ministers for Outdoor Recreation, Agriculture and Environment.

²⁷ Game Management Authority, *Wetland closures – 2023 duck season*, 2023, <<https://www.gma.vic.gov.au/hunting/duck/wetland-closures-duck-season>> accessed 18 July 2023.

²⁸ Including media releases, social media posts, information on its website and text messages to licence holders.

²⁹ Carolyn Jackson, Deputy Secretary, Environment, Climate Action and First Peoples, hearing, response to questions on notice received 27 July 2023, p. 14.

³⁰ Animals Australia, *Submission 1,590*, p. 13.

issues there. We fully support that, and we have supported wetland closures in the past. This year there has been a whole lot, and the whole thing seems to have been highly politicised, and that is a concern. If there are genuine scientific or welfare concerns that we need to address in particular areas, we are more than happy for that to happen.³¹

Some stakeholders who opposed native bird hunting highlighted a perceived low-level of closures during open season. Simon Toop from the Game Management Authority noted this was a result of variations between seasons:

I did have a look, because somebody raised these figures the other day of only a maximum of five in the last three years. The year before that there were 10. It just varies on the season and depends on where the birds are distributed and can depend on things like drought conditions. If we have drought conditions, we often get freckled duck in particular who will come and seek refuge in Victoria. We might get very large populations of freckled duck in a year where there is drought and very small populations or no birds in this state when there is lots of water, say, in inland New South Wales. It really depends on the circumstances at the time.³²

Other stakeholders also believed that certain wetlands had been closed through ministerial intervention and had circumvented the proper process. However, Graeme Ford noted this was ‘standard practice’ and stated that the Game Management Authority is routinely contacted by the Ministers’ offices to recheck for presence of threatened species.³³

4.1.6 Volunteer hunter conservation programs

Many stakeholders highlighted the significant conservation work undertaken by hunter-conservationists, the majority of whom are volunteers. The works throughout the state have included:

- wetlands rehabilitation and management
- nesting boxes
- tree planning
- feral and pest animal and weed eradication.

Evidence heard by the Committee that conservation work is undertaken by environmental protection organisations including First Nations groups.

³¹ Mr David Laird, Hunting Development Manager, Sporting Shooters Association Australia (Victoria), public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 14.

³² Mr Simon Toop, Director, Strategy and Research, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 12.

³³ Mr Graeme Ford, Chief Executive Officer, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 7.

Dr Holly Sitters stated:

we have some fantastic groups out there who are doing some brilliant work involved in wetland research and restoration – for example, DEECA working with ARI....they are currently undertaking the WetMAP project, which is designed to improve wetland health across the state. They are working with CMAs and wetlands specialists to manage grazing such that it helps remove weeds and does not degrade wetland systems. ARI is also undertaking an assessment of wetlands habitat connectivity at the statewide scale. The Blue Carbon Lab's Victorian coastal wetland restoration program is a multidisciplinary project that is focused on restoring wetland conditions in the more coastal areas. The Victorian Landcare program of course is highly successful. It is a community-based volunteer movement that facilitates and coordinates action to care for the environment again across the state and across ecosystems. Several NGOs, like the Nature Conservancy and Trust for Nature, work a lot with private landholders to restore habitat and maintain habitat quality, and the Wetland Revival Trust is also working with the community and traditional owners in order to restore wetland condition. So we have large networks of people out there working to conserve and restore wetlands.³⁴

Contrary evidence presented by the Victorian Traditional Owner Land Justice Group detailed environmental destruction including habitat loss at the hands of shooters.

Paul Haw stated:

As I said before, there are numerous wetlands around Boort. The only thing I ever hear is destruction. I cannot name one project in the last 20 years – what they have done around the wetlands in Boort. I have to go and do it myself out of my own pocket. At the moment I am growing 4000 trees to plant back in Lake Boort, and I have to call upon schoolchildren to plant them. There is just nothing they do around Boort.

...

The firewood – it actually goes out in tons and tons now, out of especially Yando Swamp and Lake Leaghur, because they have got lots of black box trees.³⁵

Some sites are also used by environmental research organisations to assist in data collection and monitoring of birds.

The Committee saw this work in person during site visits to Lake Connewarre and Heart Morass wetlands. Representatives from Field & Game Australia and local conservationist gave the Committee insights into the changes that have occurred at these sites which have been driven by local efforts.

³⁴ Dr Holly Sitters, *Transcript of evidence*, p. 60.

³⁵ Mr Paul Haw, public hearing, 29 June 2023, *Transcript of evidence*, p. 54; *ibid.*, p. 50.

Case Study 4.1 Heart Morass wetlands

In the beginning, Heart Morass was nothing but barren, salinity-affected farmland which was virtually uninhabitable for most native wildlife.

Vegetation was almost non-existent except for problem weeds such as blackberry, and some big old-growth trees that had managed to struggle on despite the extremely harsh conditions.

Painstaking effort by Wetlands Environmental Taskforce members went into an extensive weed spraying and removal program which targeted boxthorn (now almost totally eradicated) and blackberry, and other pest species such as nightshade, sweet briar, cocksfoot, thistles and cobbler's peg. This work continues to this day.

Gary Howard OAM, *Submission 9,433*.

Heart Morass wetlands is managed by Field & Game Australia's Wetlands Environmental Taskforce Trust. Between 2006 and 2013, parcels of former farmland at Sale were purchased, funded primarily by donations from hunters. The Land Title is currently held by Field & Game Australia.

As many as 66,000 trees have been planted on the site by volunteers of the Taskforce. The site has seen an increase in bird population from 20 to 25 species on the property to between 80 and 100 at present.

In 2009 a Field & Game representative was prosecuted and fined for illegally diverting water onto Heart Morass.

Duck hunting is permitted on Heart Morass as a private property. Hunters are given access to the site for a fee. The fees are used to fund future conservation work on the site, and provide the bulk of this funding.

Pedestrian public access is available for people to partake in birdwatching, photography, bike riding and nature walks.



Photo 1:
Heart Morass
wetlands, 2007.

(Continued)

Case Study 4.1 continued



Photos 2-4:
Heart Morass
wetlands, 2023.



Source: Select Committee on Victoria's Recreational Native Bird Hunting Arrangements.

Many stakeholders were concerned what would happen to these sites if hunting were no longer allowed. Many believed that hunter-conservationists would not continue volunteer work at the sites if there were no incentive for them to do so.

Danny Ryan, Chairman of Field & Game Australia, stated that regardless of the outcome of the Inquiry, the organisation would 'continue to own [the sites] and care for them in some manner and form'.³⁶

FINDING 6: The Victorian Government should ensure that there is adequate funding and support to enable increased conservation and restoration projects of Victorian wetlands by First Nations, community (including hunting groups) and environmental organisations.

4

4.1.7 Ammunition

The Committee was informed that litter and lead as a by-product of hunting produces environmental disturbances and costs.

The use of lead shot—along with other toxic shot—has been banned for duck hunting since 2002. However, lead shot is still permitted for quail hunting.

Lead is a toxic substance that poses risks to humans, wildlife, and the environment. The primary cause of lead poisoning is attributed to the ingestion of spent lead shot ammunition commonly used in waterfowl hunting. As Professor Kingsford explained:

The problem was that all of these lead pellets – the wasted ones; the ones that spread out – were sitting in the wetlands. I am not sure if the committee knows this, but ducks do not actually have the digestive system that we do with teeth. They have got a thing called a gizzard, which essentially is like a very muscular grinder, and they often take rocks and stones in naturally to do that. So they were taking lead pellets in and grinding them up and getting lead poisoning. That was the fundamental problem with ducks. To some extent that could happen with quail, but I suspect because quail can be found in all sorts of areas it is probably not a huge impact. But I would certainly be saying we should not be putting any more lead in the environment than we need to.³⁷

Lucas Cooke from Field & Game Australia highlighted the organisation's support for a ban on lead shot in waterways due to the danger of ducks ingesting pellets. However, he considered quail hunting a different situation:

lead in farmland and lead disbursed across stubble quail habitat does not concentrate and is not ingested by the birds, so I think it is a very different thing to consider. It is not quite as simple as saying, 'It's banned for ducks; why don't we just ban it for quail as well?' It has very different effects on those environments.³⁸

³⁶ Mr Danny Ryan, Chairman, Field & Game Australia, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 12.

³⁷ Professor Richard Kingsford, *Transcript of evidence*, p. 14.

³⁸ Mr Lucas Cooke, *Transcript of evidence*, p. 13.

Dr Holly Sitters also spoke about the concerning level of microplastics left in wetlands from spent ammunition:

I have heard about the level of plastic pollution that ends up in wetlands following duckshooting season, and so, yes, that is certainly of great concern to me. I think knowledge of microplastics and their effects on our environment is really growing and is absolutely horrifying to learn about. So yes, the levels of plastic pollution in particular but any forms of pollution out there in the wetlands are of great concern because they affect the whole food chain.³⁹

Dave Evans, an individual sharing his experiences as a rescuer, similarly stated:

I have four 44-gallon drums full of shotgun shells that beg to differ that the wetlands are clean. These are shotgun shells that are picked up by rescuers, because we clean up the wetlands as we rescue birds.⁴⁰

As discussed previously, the Conservation Regulator does not allow lead shot for use under any Authority to Control Wildlife permits issued to control birds. Given the known impacts of lead on the environment and human health, the Committee believes that lead shot should no longer be used in any type of bird hunting or control.

4.1.8 Pest control

In the past, some species of native ducks have been declared pests in Australian jurisdictions.

The Committee heard some evidence of native ducks considered as pests through destruction of crops. Some stakeholders were concerned that ending native bird hunting would cause population increases which would have a flow on effect to increased issues as pests.

Similarly, others highlighted how native bird hunting can be used a management tool to control population whilst allowing people to participate in it as a recreational activity. Some highlighted the destruction of bok choy crops on the Mornington Peninsula in March 2023 which was publicised on social media.

Other stakeholders were concerned that without population control from native birds harvest during hunting season, this would cause an increase in pest population. Some pointed to New South Wales as an example, as the state allows bird hunting to occur on private lands under the Native Game Bird Management Program.⁴¹

³⁹ Dr Holly Sitters, *Transcript of evidence*, p. 65.

⁴⁰ Mr Dave Evans, public hearing, Sale, 26 June 2023, *Transcript of evidence*, p. 49.

⁴¹ Department of Primary Industries, *Native Game Bird Management Program*, 2023, <<https://www.dpi.nsw.gov.au/hunting/game-and-pests/native-game-birds>> accessed 20 July 2023.

However, the Committee notes that the majority of participants in the program relate to rice farms, whilst Victoria does not have a significant rice-growing agricultural industry. In 2021–22, 58% of participants of the program were ricegrowers.⁴²

The Committee heard evidence that culling from New South Wales rice fields is less than 5–6% of the harvest from Victoria’s recreational duck shooting season. Jo Wilkson, consultant at Animals Australia stated:

I am happy to say that a lot has been made about the rice crop protection in New South Wales. People do not necessarily look at the stats. But if you look at the last eight years of stats, which are publicly available, the average cull in the New South Wales rice crop program is 5 percent of our recreational cull for that same eight-year period – 5 per cent. Ours is for recreation; theirs is for economic purposes.⁴³

In the Committee’s view it is likely pest populations of ducks (as well as other birds) can be effectively managed under the Authority to Control Wildlife provisions of the *Wildlife Act 1975*. The Committee has also recommended that the Victorian Government review pest populations of ducks in the coming years and to consider widening the scope for pest control.

4.2 Economic impact of recreational native bird hunting in Victoria

The Committee received a range of conflicting evidence on the economic impact of recreational native bird hunting in Victoria. Estimates ranged from a very high net ‘contribution’ to almost zero net contribution. The Parliamentary Budget Office highlighted that Australian literature on the economic impacts of native bird hunting is ‘dominated by a small number of participants’.⁴⁴

For this reason, the Committee considers there is insufficient evidence to accurately state the real economic impact of native bird hunting to the Victorian economy. In addition, populations of birds are mobile and hunters will follow good conditions, leading to a inconsistent or unreliable income for any particular areas.

Despite this, the Committee notes it is highly likely native bird hunting has a greater economic impact on regional Victoria and the practice is supported by some local shire Councils.

At a public hearing Cr Ian Bye, Mayor of Wellington Shire Council, described economic effect of native bird hunting in the region:

In Wellington we receive a significant community benefit from duck hunting each year, in the amount of around \$3.5 million per year. Even in the reduced season the spending was as much, talking to local suppliers, as it was in a normal season, so we still had quite a

⁴² Ibid.

⁴³ Ms Jo Wilkinson, Consultant, Animals Australia, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 39.

⁴⁴ Parliamentary Budget Office, *Submission 3,422*, p. 6.

lot of people that were participating. Hunters travelling to our region provide significant economic advantages via accommodation, purchase of fuel and hunting supplies and additional ad hoc purchases in small communities closest to their hunting area.⁴⁵

Stakeholders' main source of data was a 2020 economic contribution study prepared by economic consulting group RMCG for the former Department of Jobs, Precincts and Regions. The study found that duck and quail hunting made a gross economic contribution of \$65 million and \$22 million respectively each year. This comprised 24% of a total \$356 million estimated hunting as a whole in Victoria.⁴⁶

RMCG also published a report in 2019 on the economic and social impacts of recreational hunting and shooting Australia-wide. In this report, RMCG estimated a total \$2.4 billion gross economic contribution to the Australian GDP, comprising \$0.8 billion direct and \$1.6 billion indirect contribution.

Inquiry stakeholders were divided on the findings of the study. Those who supported native bird hunting believed it illustrated considerable direct and flow on benefits to the economy. Those opposed to native bird hunting believed the findings were overstated and did not reflect the true economic impact of the activity.

Many stakeholders referred to findings of 'Out for a duck'—a 2012 economic analysis prepared by the Australia Institute for RSPCA Victoria.⁴⁷ This found the economic impact native bird hunting was almost zero. However, some stakeholders were critical of this study due to its small sample size and low engagement with 15 hunters in total.

The Committee requested analysis from the Parliamentary Budget Office as an independent assessment of available economic data on native bird hunting. The Parliamentary Budget Office provided the analysis, which expanded on the findings of RMCG's economic contribution study and the Out for a duck study.

The Parliamentary Budget Office found the net economic impact of native bird hunting in 2023–24 to be \$12 million and 118.2 full time equivalent jobs.⁴⁸ Of this, is estimated the direct and flow-on economic impact as follows:

- \$5.3 million direct benefit to gross state product and 61.9 full time equivalent to aggregate employment
- \$6.7 million flow-on economic benefit to gross state product and 56.3 full time equivalent to aggregate employment.⁴⁹

⁴⁵ Cr Ian Bye, Mayor, Wellington Shire Council, public hearing, Sale, 26 June 2023, *Transcript of evidence*, p. 2.

⁴⁶ RMCG, *Economic contribution of recreational hunting in Victoria*, report for Department of Jobs, Precincts and Regions, Victorian Government, 2020, p. i.

⁴⁷ Australia Institute, *Out for a duck: an analysis of the economics of duck hunting in Victoria*, Australia Institute, 2012.

⁴⁸ Parliamentary Budget Office, *Submission 3,422*, p. 4.

⁴⁹ *Ibid.*, p. 8.

According to the Parliamentary Budget Office, native bird hunting has a small direct positive impact on the Victorian Budget. The office estimated this to be a net revenue of \$2.7 million received from licence and test fees in 2023–24 the remainder being spent in small businesses and other private enterprise.

FINDING 7: There is little data on the direct economic impacts of native bird hunting in Victoria. Total figures provided to the Committee had a significant difference in their range and had inconsistent methodology.

4.2.1 Economic analysis by the Parliamentary Budget Office

Key findings of the Parliamentary Budget Office's analysis are as follows:

- in 2023–24 the estimated economic impact of native bird hunting included:
 - \$12 million (0.002%) of Victoria's gross state product: \$8.6 million in regional Victoria and \$3.4 million in metropolitan Melbourne
 - 118.2 full-time equivalent employees (0.003% of Victoria's employment), 81.3 in regional Victoria and 37.0 in Victoria.⁵⁰

Table 4.1 below shows the Parliamentary Budget Office's analysis of net economic impact and net employment impact of native bird hunting in Victoria. Note that figures may not add up due to rounding.

Table 4.1 Parliamentary Budget Office's analysis of net economic impact and net employment impact of native bird hunting in Victoria 2023–24

	Regional Victoria	Metropolitan Melbourne	Total
Net economic impact (\$ million)	8.6	3.4	12.0
Net employment impact (FTE)	81.3	37.0	118.2

Source: Parliamentary Budget Office, *Submission 3,422*, p. 4.

FINDING 8: Estimates by the Parliamentary Budget Office found approximately 72% of net economic impact and 69% net employment impact of native bird hunting is received by regional Victoria.

4.2.2 Direct impact on Victorian budget

Table 4.2 below shows the Game Management Authority's total revenue and expenses over the past 5 years. The agency's revenue is primarily from grants, whereas employee and other expenses make up the bulk of total expenditure.

⁵⁰ Ibid., pp. 1, 11.

Table 4.2 Game Management Authority total revenue and expenditure, 2017-18 to 2021-22

	2021-22 (\$)	2021-22 restated ^a (\$)	2019-20 (\$)	2018-19 (\$)	2017-18 (\$)
Total revenue	9,085,270	8,855,565	7,473,700	7,329,485	5,538,266
Total expenditure	(8,784,931)	(7,940,415)	(6,637,693)	(5,056,723)	(4,998,342)
Net result	300,339	915,149	836,007	2,272,762	539,924

a. Due to a write-off of intangible assets relating to the online Game Licensing System.

Source: Game Management Authority, *Annual report 2012-22*, p.28.

In its analysis, the Parliamentary Budget Office provided the following estimates for revenue from native bird hunting:

- \$2.7 million in the current Budget, comprising \$3.3 million in licence and test fees less \$0.5 million in operating expenses from Game Management Authority staffing
- \$11.1 million over the next 4 years, comprising \$13.4 million in licence and test fees less \$2.2 million in operating expenses from Game Management Authority staffing
- \$32.5 million over the next 10 years, comprising \$39.1 million in licence and test fees less operating expenses of \$6.6 million from Game Management Authority staffing.⁵¹

It did not consider any impact of native bird hunting revenue from firearms licences.⁵²

The Parliamentary Budget Office also noted additional funding provided to native bird hunting since 2019:

- \$14 million from 2019-20 to 2022-23 to support recreational hunters and sporting shooters
- \$5.3 million in 2020-21 provided to the former Department of Jobs, Precincts and Regions to develop the Sustainable Hunting Action Plan, with \$0.3 million in funding allocated for 2023-24
- \$2.3 million in 2023-24 to the Game Management Authority to maintain local enforcement, compliance with hunting regulations and stakeholder engagement.⁵³

In responses to questions on notice, the Game Management Authority noted the following costs of duck and stubble quail abundance surveys in 2022:

- \$425,000 for the game duck abundance estimates (comprising aerial survey, ground surveys and wetland extent estimate, data analysis and report writing)
- \$185,000 for the stubble quail abundance estimates (comprising ground surveys and habitat extent estimation, data analysis and report writing).⁵⁴

⁵¹ Ibid., p. 19.

⁵² Ibid.

⁵³ Ibid., p. 16.

⁵⁴ GMA responses to questions on notice, p. 4.

In addition, the Department of Energy, Environment and Climate Change advised that in the 2023 year, 524 hours of work was done by regional staff undertaking wetland surveys, and an additional 83 hours of threatened species verification surveys. This involved 33 staff members, and while the cost of this was not quantified it is a considerable allocation of departmental resources.

In its response to questions on notice, the Department of Jobs, Skills, Industry and Regions provided a breakdown of funding allocated to projects under the Sustainable Hunting Action Plan 2021–2024. This is listed in Table 4.3 below.

Table 4.3 Projects allocated funding under the Sustainable Hunting Action Plan 2021–2024

Project	Funding (\$)
Waterfowl and quail wounding reduction action plans	30,000
Waterfowl wounding monitoring	240,000
Quail abundance monitoring	400,000
Game duck abundance monitoring program	765,000
Develop game duck adaptive harvest management framework and strategy	38,288.67 ^a
Sustainable hunting grant program projects:	162,634
• Hen houses construction and installation: \$48,134	
• Research investigating diversity and abundance of waterfowl in restored wetlands in western Victoria compared to drained wetlands: \$74,500	
• Education programs for school students about local biodiversity at Heart Morass and Connewarre Wetlands: \$40,000	
Total	1,635,922.67

a. Spent to date.

Source: Beth Jones, Deputy Secretary Regional and Suburban Development, Department of Jobs, Skills, Industry and Regions, response to questions on notice received 27 July 2023.

In addition, the Department stated that \$965,000 of funding under the plan was provided to the Department of Energy, Environment and Climate Action. This was to enter into grant agreements with four Traditional Owner Corporations for Traditional Owner Game Management Strategy pilot projects.⁵⁵

4.2.3 Analysis of 2020 RMCG report: economic contribution

In 2020 RMCG prepared a report for the former Department of Jobs, Precincts and Regions. The study was into economic contribution of recreational hunting in Victoria. The report was a comparison of contributions by all types of hunting in Victoria between 2013 and 2019.

⁵⁵ Beth Jones, Deputy Secretary Regional and Suburban Development, hearing, response to questions on notice received 27 July 2023, p. 7.

The report was based on an online survey, supplemented with targeted phone calls to correct any bias in the sample. In total 1,671 complete responses were collected. RMCG noted the report was not a 'benefit-cost analysis'.⁵⁶

The report found recreational hunting had a gross contribution of \$356 million (\$160 million direct and \$196 million flow on) and 3,138 jobs (1,626 direct and 1,513 flow on).⁵⁷

The report noted that in 2019 the total contribution to gross state product fell 28% since 2013. Deer hunting expenditure increased substantially, however duck, quail and pest hunting fell.⁵⁸ It noted that much of the reduction between the two years occurred in Greater Melbourne compared to regional Victoria, with 43% (\$187 million to \$107 million) and 13% (\$281 million to \$244 million) reductions respectively.

The report attributed this in part to an increase in hunter effort and game licences for deer and changes in duck hunting seasonal conditions and reduced opportunities to hunt duck.⁵⁹

Many stakeholders discussed the findings of this report. Those in favour of native bird hunting highlighted the gross economic contribution figures and full time employment, and stated this as a reason to continue bird hunting arrangements. Others considered the findings as overestimating the total impact of native bird hunting to the Victorian economy.

In its submission, the Parliamentary Budget Office described how it considered the economic impact as a more appropriate reporting measure, as opposed to gross economic impact or 'contribution' in the RMCG report:

The gross economic impact of game bird hunting captures the direct expenditure of hunters (e.g. equipment, ammunition and accommodation) as well as flow-on expenditure, such as employment in the businesses that supply accommodation or food in hunting regions ...

This measure only describes the direct economic value of game bird hunting activity. It does not account for activities which game bird hunting displaces.

The economic impact is the difference between the gross economic impact and the gross economic impact of alternative activities that could replace hunting activity. That is, the economic impact accounts for the substitutability of native bird hunting.

This net measure is more defensible and useful as an estimate of the economic value or impact of game bird hunting.⁶⁰

⁵⁶ RMCG, *Economic contribution of recreational hunting in Victoria*, p. ii.

⁵⁷ Ibid., p. 25.

⁵⁸ Ibid.

⁵⁹ Ibid., p. iii.

⁶⁰ Parliamentary Budget Office, *Submission 3,422*, p. 7.

In its 'Out for a duck' analysis, the Australia Institute considered existing government economic data on native bird hunting and also considered findings of an online survey conducted in September 2012. The survey comprised 10 questions about participation in duck hunting and travel in Victoria and received responses from 503 Victorians.⁶¹

Out for a Duck estimated that ending duck hunting would benefit the Victorian economy \$60 million per year.⁶² It found:

- Less than 0.5% of Victorians were active duck hunters, while 87% supported a ban on duck hunting.
- 3% of survey respondents had participated in duck hunting and intended to do so again.
- Claims that duck hunting (or other recreational hunting) contributed significantly to the Victorian economy 'are false'.
- There would be 'no impact' on expenditure in Victoria if duck hunting were banned since existing hunters would likely go fishing, hunt other species or go camping.
- Revenue from non-hunting tourism was 'far more important' to the Victorian economy than duck hunting.
- More than half of survey respondents were less likely to holiday in an area with duck hunting.
- 30% of respondents were willing to pay to end duck hunting.⁶³

The report also considered non-monetary benefits of duck hunting and improvement of welfare of non-hunters were 'far greater than the non-monetary losses that hunters would incur from a ban'.⁶⁴

At a public hearing, Rod Campbell, Research Director and Elizabeth Morrison, Researcher from the Australia Institute expanded on the Out for a duck analysis and criticism of RMCG's economic contribution study.

Mr Campbell summarised his criticism of RMCG's economic contribution report as follows:

They were administered to a particularly active, engaged part of the hunting population. The hunting advocacy groups promoted those surveys. In our submission we highlight a post from the Australian Deer Association that emphasises to their members that this study and this survey will provide useful dollar-value figures that will help with hunting advocacy, and when a survey is being promoted like that to a particular part of the sample population, it gives every incentive to provide exaggerated results⁶⁵

⁶¹ Australia Institute, *Out for a duck: an analysis of the economics of duck hunting in Victoria*, p. 11.

⁶² Ibid., p. 2.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Mr Rod Campbell, Research Director, Australia Institute, public hearing, Melbourne, 26 May 2023, *Transcript of evidence*, p. 30.

When questioned about the generalisations of the Out for a duck report due to the sample size of the survey, Mr Campbell stated:

while the statistical power of talking to – let us say you are right – 15 hunters about hunting might be limited, the logic of it is what is useful here. If you are not allowed to hunt ducks, you are likely to hunt another species or undertake another outdoor activity that is in a lot of ways similar to duck hunting. I do not think the psychology or logic of that is controversial.⁶⁶

4.3 Economic contribution of substitute outdoor recreational activities

Economic analysis of native bird hunting generally considers the impact of hunters substituting to other activities. Native bird hunting is considered to have a high level of substitutability as it is often linked with similar outdoor recreational activities such as other types of hunting, fishing and camping.

In addition, it is likely most native bird hunters will continue to hunt deer, as they hold multiple game licence entitlements. At 30 June 2022 only 19% (11,230) of game hunters held only a licence to hunt game birds including duck, and a further 2% (1,089) to hunt game birds not including duck.⁶⁷

RMCG's 2020 report on the economic contribution of hunting used two scenarios for substitutable outdoor activities:

- **low substitutability** (the bulk of hunting expenditure diverted to household expenditure rather than outdoor activities): \$57 million in net contribution to Gross State Product and 627 full time equivalent jobs
- **high substitutability** (the bulk of hunting expenditure diverted to outdoor activities): \$19 million in net contribution to Gross State Product and 246 full time equivalent jobs.⁶⁸

The report concluded that without hunting, the impact at a state level would be small as much of the economic activity would be replaced by expenditure on other activities. However, it noted the gross contribution of hunting indicating the importance of hunting in regional and town economies, and towns reliant on hunting expenditure would be affected.⁶⁹

In its analysis, the Parliamentary Budget Office considered four main types of alternative activities to native bird hunting in Victoria:

- hunters could hunt other animals
- hunters could engage in other outdoor activities

⁶⁶ Ibid., p. 32.

⁶⁷ Game Management Authority, *Game licence statistics: summary report 2022*, Victorian Government, Melbourne, 2022, p. 7.

⁶⁸ RMCG, *Economic contribution of recreational hunting in Victoria*, p. iv.

⁶⁹ Ibid.

- non-hunters could pursue activities in the locations and at the times native bird hunting currently operates
- interstate substitution of hunting activities.⁷⁰

The Parliamentary Budget Office's analysis relied primarily on the findings of RMCG's economic contribution report. It also noted that the Australia Institute's analysis relied on a small sample size of 17 hunters who intended to hunt in future.⁷¹

The Parliamentary Budget Office noted there was limited data on substitutability of hunting activities on wetlands and state game reserves.⁷² However, in its analysis it noted the following if native bird hunting were no longer in place:

- hunters would likely substitute to alternative activities, but these may not occur in the same locations hunting currently does
- the net economic benefit from native bird hunting would not necessarily be replaced.⁷³
- hunters who would likely shift their expenditure from Victoria to other states as they are likely travel to where native bird hunting is allowed.⁷⁴

4.3.1 Nature-based tourism

Nature-based tourism is a substitute outdoor activity that could offset any economic impacts of an end to native bird hunting. The Committee believes that there is a significant benefit in promoting nature-based tourism in Victoria, particularly in regional towns.

However, the Committee did not receive compelling evidence of a significant foregone economic benefit from nature-based tourism due to current native bird hunting arrangements. As with the economic impact analysis of native bird hunting, there is little analysis of the impact of substitute nature-based tourism.

Many stakeholders believed that nature-based tourism is a key substitute for native bird hunting. Birdwatching was often highlighted as a key activity and others included kayaking, photography and bushwalking.

The Committee also heard how recreational activities including First Nations led cultural tours are put on hold while duck shooting takes place. Paul Haw described the impact duck shooting has on his cultural tours of Boort:

No. I cannot conduct them in season because my place is only 20 metres from the edge of the lake. By law I can get fined even for being that close. What shocked me is that the Dja Dja Wurrung themselves are not allowed in the water while duck shooting is on,

⁷⁰ Parliamentary Budget Office, *Submission 3,422*, p. 1.

⁷¹ Ibid., p. 15.

⁷² Ibid.

⁷³ Ibid., p. 2.

⁷⁴ Ibid., p. 15.

and it is to do with native title. I just find that hard to believe – that duck shooters have got more rights than native title.⁷⁵

In its submission, Birdlife Australia provided data based on two reports:

- a 2022 it had commissioned into bird and nature tourism in Australia
- data from Tourism Australia collected in 2019.

Birdlife Australia stated the findings of these reports indicated:

- birdwatching day trips were incorporated in the tourism activities of 516,000 people and 316,000 overnight stays, generating \$283 million altogether
- birdwatchers spent an average of \$181 per night, 'more than any other nature based tourism sector'.⁷⁶

The Coalition Against Duck Shooting believed that the Dja Dja Wurrung wetlands at Boort could become a tourist destination and the Kerang wetlands could become 'Victoria's Kakadu'.⁷⁷

Regional Victorians Opposed to Duck Shooting noted numbers of people involved in bird watching at areas such as Winton Wetlands (near Benalla), Melbourne Waters' Western Treatment Plant and Phillip Island Nature Parks.⁷⁸ On its site visit at Lake Connewarre, the Committee also heard it was used for kayaking, canoeing and water skiing.

However other submissions assert that certain nature-based tourism locations like Winton Wetlands are yet to be economically sustainable without significant Victorian Government grants.

⁷⁵ Mr Paul Haw, *Transcript of evidence*, p. 52.

⁷⁶ Birdlife Australia, *Submission 1,606*, p. 10.

⁷⁷ Coalition Against Duck Shooting, *Submission 1,607*, p. 1.

⁷⁸ Regional Victorians Opposed to Duck Shooting, *Submission 1,587*, p. 47.

Chapter 5

Cultural and social impacts of native bird hunting

The Committee received concerning allegations of destruction of Aboriginal cultural heritage sites cases by hunters during season opening and notes the lack of clarity from departments and agencies about who should be responsible for management and enforcement protection.

Whilst native bird hunting season opening is only for a small portion of the year, it excludes the vast majority of the public from using a large amount of public land during this time. There is no other recreational activity that has this much impact on the general public.

In addition, residents close to hunting sites suffer amenity loss in their local area. The Committee heard from stakeholders who described the disruption to their lives during season opening and the effects of gunfire noise on their wellbeing and the wellbeing of their pets and other livestock.

However, Committee also acknowledges the significant impact native bird hunting as an outdoor recreational activity has for hunters. In the Committee's view it important that if the Government ends recreational native bird hunting that it invests resources into maintaining outdoor recreational sites and ensuring public land is available for outdoor recreational use

5.1 Aboriginal cultural heritage impacts

The Committee heard from some Traditional Owner stakeholders that hunting was an important cultural practice which should be shared by all Victorians. However, others disliked the use of guns and the presence of hunters at important cultural sites.

The Committee was provided with evidence of damage to Aboriginal cultural heritage sites allegedly caused by duck hunters. The Committee is deeply concerned about this loss to significant cultural heritage sites and believes there is more the government agencies can do to educate and prevent this occurring in the future.

5.1.1 Traditional Owner organisation views on recreational native bird hunting

Some Traditional Owner people across Victoria practice hunting as a way of continuing the practices of their ancestors and maintaining connection to country.

In its submission, the Federation of Victorian Traditional Owner Corporations said:

Hunting, game and wildlife management is both a way of life and expression of identity for the Aboriginal people of Victoria. Traditional Owners within Victoria continue the cultural practices of their ancestors, particularly with respect to the animals they hunt as game. Many of these animals have spiritual and ceremonial significance.¹

As noted in Chapter 3, Traditional Owner corporations may pursue a Natural Resource Agreement under the *Traditional Owner Settlement Act 2010*. Among other things this allows them to hunt certain animals agreed upon, including birds. This hunting framework is separate to the recreational hunting framework provided for in the *Wildlife Act 1975*.² Traditional Owner corporations may also be recognised under the *Native Title Act 1993* (Cth).³

The Victorian Government worked with the Federation of Victorian Traditional Owner Corporations to develop the *Traditional Owner Game Management Strategy* in 2021.⁴ The strategy sets out how the Victorian Government will partner with Traditional Owners to build participation in hunting, land management and conservation.⁵

Rodney Carter, Chief Executive Officer of Dja Dja Wurrung Group believed that others should have the opportunity to hunt:

I think – with the brilliant respect that the state has afforded First Nations people – that my descendants and I will enjoy hunting for all time. If the inquiry and the government can somewhat see it in their mind to afford other Victorians the opportunity – and visitors to our homelands – to be able to enjoy something similar, I think truly it can be managed.⁶

Mr Carter explained to the Committee he thought that hunting created a connection to the environment and a respect for the animals being hunted.⁷ He believed it would be unfortunate if Victorians who are not traditional owners were no longer able to continue the practice:

I think it is extremely unusual in that it is a legal or licensed activity at the moment, which for my people, in a sense, is something we will enjoy no matter what. We think it is important in our advocacy and leadership that we support the continuance of something that is culturally significant to us that other Victorians enjoy. There is so little, I think, as Victorians, that we can enjoy of what I and what my ancestors enjoyed.⁸

¹ Federation of Traditional Owners, *Submission 1,612*, p. 1.

² Ms Carolyn Jackson, Deputy Secretary, Environment, Climate Action and First Peoples, Department of Energy, Environment and Climate Action, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 10.

³ *Ibid.*, p. 11.

⁴ Federation of Victorian Traditional Owner Corporations, *Traditional Owner's game management strategy*, report for Department of Jobs, Precincts and Regions, Victorian Government, p. 1.

⁵ Federation of Traditional Owners, *Submission 1,612*, p. 3.

⁶ Mr Rodney Carter, Chief Executive Officer, Dja Dja Wurrung Group, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 2.

⁷ *Ibid.*

⁸ *Ibid.*, p. 5.

However, the Committee also received evidence from Traditional Owner stakeholders who were opposed to duck hunting. They noted cultural reasons such as a desire to preserve waterways and landscapes. Others highlighted that in some Nations the duck is a sacred cultural Totem.

At a public hearing, the Committee heard from Gary Murray from the Traditional Land Owner Justice Group. He told the Committee he did not believe most of the First Nations groups across the state supported recreational native bird hunting:

I think that you will not get much support from the 38 First Nations across this state once this issue is analysed properly and we discuss it. There is no way the majority of First Nations will support it.⁹

When asked if he thought recreational native bird hunting was an activity that is culturally important for Aboriginal Victorians, Mr Murray distinguished between traditional hunting practices and modern practices. He said:

Traditional practices – well, there are traditions like somebody would get down one end of the creek, they would throw a boomerang and scare the ducks and they would fly up the creek. There would be a net straight across the creek and they would be caught, in these old traditional practices.¹⁰

...

But I would say this: we have been dispossessed, dispersed like the four winds, deculturalised. Our languages have been taken away from us, our country, our water, all the stuff that we value as occupiers of a particular country, and we have got to address that. There are some things you will pick up from traditional customs; there are other things you will not. Guns are not one of them.¹¹

Mr Carter from the Dja Dja Wurrung Group discussed how he had accessed funding as part of the *Traditional Owner Game Management Strategy*. This was used to produce signage to educate hunters at a state game reserve about the Aboriginal cultural sites there:

We targeted the Tang Tang state game reserve. For us it has significant cultural values so we have a great interest in that area, but we were respectful of the regulation around that as a form of place that can be accessed by the public for hunting. We wanted to communicate ourselves, our culture, so our interpretive signage and improvement regarding fences. As a first of its kind, we created a car park at that area adjacent to the reserve and not in the reserve and that was about people going into that place to hunt or for other recreation activities having less of an impact by being at that place.¹²

⁹ Mr Gary Murray, Victorian Traditional Owner Land Justice Group, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 54.

¹⁰ Ibid., p. 59.

¹¹ Ibid., p. 52.

¹² Mr Rodney Carter, *Transcript of evidence*, p. 2.

Mr Carter believed that it was valuable to educate hunters at wetlands that have Aboriginal cultural heritage sites about their importance:

I think what happens through the education is just a greater awareness and appreciation of that value that now is a little bit transferable to me as a person and/or a people. So you are there, say, hunting as an example at a state game reserve, now you learn something about cultural heritage. I would like to think then that you are better for that and then indirectly it is better for me and my people because the opportunity might not have arisen otherwise.¹³

However, Mr Murray believed that recreational native bird hunting on sites of cultural significance impeded efforts to showcase important sites and educate the public about them:

We are trying to showcase our cultural heritage to schools and universities, public servants and parliamentarians and all that. How can we do that during the duck season when there are guns out there? Why would we take 60 kids and 20 leaders camping at that lake near Paul's keeping place when in the morning you are going to hear shotguns going off.¹⁴

This view was shared by Paul Haw, the owner of the Aboriginal keeping place, a museum at Lake Boort, that showcases Aboriginal cultural artifacts from the region. Mr Haw explained that he cannot conduct tours of the site of cultural significance around Lake Boort during the duck hunting season:

Last week I had 100 visitors. The week before I had 200. I am mainly looking after schoolchildren, but while shooting was on I could not have one schoolchild. My participation dropped to probably 10 a week, where it has been up to 200 a week, just because of duck shooting.

And this is what the tourists have to face while I am doing tours around the wetlands now. It is all the leftovers from duck shooting, and it is just disgraceful. Some people are so upset, especially schoolchildren, when they see pictures like that.¹⁵

Mr Haw provided the Committee with a photograph of duck feathers which he claimed were left behind by hunters. He stated they were one of the reasons he could not take school children on tours during duck season. This is shown in Figure 5.1 below.

¹³ Ibid., p. 10.

¹⁴ Mr Gary Murray, *Transcript of evidence*, p. 51.

¹⁵ Mr Paul Haw, public hearing, 29 June 2023, *Transcript of evidence*, p. 49.

Figure 5.1 Duck feathers allegedly left by hunters on Lake Boort

Source: Paul Haw, images supplied at public hearing, 29 June 2023.

5.1.2 Destruction and damage of sites

Many stakeholders were concerned about damage and destruction to culturally significant sites. Many believed that hunters had shown disrespect to Traditional Owner history through poor treatment and behaviour on culturally significant sites. Others detailed destruction of cultural heritage, particularly through cutting down scarred trees that were used for firewood and taken off site.

At a public hearing, Mr Haw and Mr Murray described the damage allegedly caused by recreational native bird hunters, particularly at Lake Boort. The Committee heard that Lake Boort has a rich indigenous heritage¹⁶ that according to Mr Haw includes between 60 and 70 cooking mounds, some dated at over 10,000 years old,¹⁷ as well as over a thousand scarred trees or culturally modified trees.¹⁸

Paul Haw alleged that he had seen duck hunters damage cooking mounds and scarred trees at Lake Boort:

Then the next thing that really upsets me is when they camp on the Aboriginal cooking mounds. I cannot work out why duck shooters do not go through a cultural course to know what a cooking mound is and a scarred tree. I have got two cooking mounds

¹⁶ Laurie Levy, Campaign Director, Coalition Against Duck Shooting, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 51.

¹⁷ Mr Paul Haw, *Transcript of evidence*, p. 53.

¹⁸ Mr Gary Murray, *Transcript of evidence*, p. 50.

on one of the wetlands around Boort where they camp and dig holes in. It is just an absolute disgrace, and they should be marked and identified.¹⁹

...

Boort has the most scarred trees in the world made with stone tools, and here we are – we lose so many to duck shooting and chainsaws.²⁰

Mr Haw provided the Committee with a photograph of the alleged damage of a cooking mound by recreational duck hunters. This is showing in Figure 5.2 below.

Figure 5.2 Alleged damage to a cooking mound by recreational duck hunters at Lake Boort



Source: Paul Haw, images supplied at public hearing, 29 June 2023.

Gary Murray also described the damage to scarred trees he believed were caused by duck hunters:

Then you have got the cultural heritage being destroyed by people coming up from Melbourne. They get away for the weekend and have a good time. We all know they go to the pub and bring grog back on the bush and all that. Then they get cold and they will cut up a tree – and they do not know what they are doing. They could cut up a scarred tree not knowing that that tree is protected, and you could go to jail or you could get a million-dollar fine, a penalty, under the Victorian *Aboriginal Heritage Act*. That is what they are staring down the barrel at – that we start prosecuting them.²¹

¹⁹ Mr Paul Haw, *Transcript of evidence*, pp. 49–50.

²⁰ *Ibid.*, p. 50.

²¹ Mr Gary Murray, *Transcript of evidence*, p. 50.

Helen Round, an animal rescuer who gave evidence at a public hearing, also described how Mr Haw had shown her damaged scar trees and how hunters had camped on cooking mounds.²²

When asked his view of the alleged damage to Aboriginal cultural sites by hunters, Rodney Carter replied:

It is terrible that those things happen in the destruction of cultural heritage. Broadly, when we look at the harm to cultural heritage, there are a lot of other types of legally sanctioned, regulated activities that create more harm to my heritage. That does not prove, in a sense, that if somebody is hunting or doing these other activities that it is good that they are harming heritage. It is significant, but it is not as significant when compared to the state when we regulate and do development and planning and how those things impinge upon the harm to heritage.²³

Paul Haw believed hunters should be educated about Aboriginal cultural heritage sites so that damage or destruction could be avoided. In addition, he suggested that Parks Victoria could signpost them:

I would like to see duck shooters do a training on what a scarred tree is, what a cooking mound is. And Parks Victoria – perhaps they should even mark some of these, because as I said, Lake Boort has so many scarred trees and Lake Yando I think has a cooking mound every 150 metres. They should be at least taught what they are and to value them.²⁴

Simon Toop, Director of Strategy and Research at the Game Management Authority acknowledged a lack of understanding by hunters in relation to cultural heritage. He informed the Committee that the Game Management Authority promoted information about the issue on its website:

I think there is a real lack of understanding in that sphere. I mean, a lot of these wetlands contain these really important sites, but nobody really knows where they are or what they are. We have done some information on our website to raise awareness of hunters, but I think there needs to be a lot more done in that space because people just are not – whether they are hunters or campers or fisherpeople or whoever.²⁵

In response to a question on notice, the Department of Energy, Environment and Climate Action acknowledged that only a small percentage of the land it manages has been surveyed to understand the cultural heritage value of the land:

Parks Victoria is the land manager for all State Game Reserves. Parks Victoria is aware there are more than 13,000 registered Aboriginal places on the land it manages and a very small percentage of the land managed has been surveyed to fully understand cultural values.²⁶

²² Ms Helen Round, public hearing, Sale, 26 June 2023, *Transcript of evidence*, p. 50.

²³ Mr Rodney Carter, *Transcript of evidence*, p. 5.

²⁴ Mr Paul Haw, *Transcript of evidence*, p. 58.

²⁵ Mr Simon Toop, Director, Strategy and Research, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 18.

²⁶ Ms Carolyn Jackson, *Transcript of evidence*, p. 4.

5.1.3 Agency roles in cultural heritage education

Given the evidence presented alleging damage or destruction of cultural heritage sites, the Committee sought clarity from Government agencies about their responsibilities in this area.

When asked if authorised officers employed by the Game Management Authority would be empowered to prevent and enforce the protection of Aboriginal cultural heritage sites, Graeme Ford, Chief Executive Officer of the Game Management Authority said 'I think we would refer them to the Department of Energy, Environment and Climate Action'. Mr Ford also did not know how many signposted culturally significant Aboriginal cultural sites there were on state game reserves, which he said was a matter for the Department.²⁷ However, a Game Management Authority representative stated that to their knowledge they had never received a report of cultural heritage destruction.²⁸

The Committee asked representatives from the Department of Jobs, Skills, Industry and Regions about mechanisms to report damage or destruction of Aboriginal cultural sites by hunters. Mark Sandiford, Director Outdoor Recreation at the Department, stated 'it would probably go to [the Department of Energy, Environment and Climate Action]' because 'it is public land'.²⁹

The Committee questioned representatives of the Department of Energy, Environment and Climate Action about enforcement action available for damage or destruction of cultural heritage sites at game reserves. Carolyn Jackson, Deputy Secretary, Environment, Climate Action and First Peoples said:

So I think that, to my earlier point, sits with DPC. There is a First Peoples–State Relations team in DPC, and they also look after the authorised officers for cultural heritage disruption and damage. So there are authorised officers, just like we have got them in the conservation regulator.³⁰

When asked if the First Peoples–State Relations team at the Department of Premier and Cabinet work with her department to protect cultural site on state game reserves, she replied:

I am sure they do. I am sure they would work with our authorised officers, but that responsibility sits with DPC, and so the enforcement of damage or otherwise would sit with DPC under the Aboriginal Heritage Act.³¹

²⁷ Mr Graeme Ford, Chief Executive Officer, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 18.

²⁸ Mr Paul Stevens, Director, Compliance and Intelligence, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 18.

²⁹ Mr Mark Sandiford, Director, Outdoor Recreation, Department of Jobs, Skills, Industry and Regions, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 51.

³⁰ Ms Carolyn Jackson, *Transcript of evidence*, p. 59.

³¹ Ibid.

In answers to questions on notice, the Department of Energy, Environment and Climate Action detailed reporting mechanisms for damage or destruction of Aboriginal cultural heritage sites on game reserves:

Parks Victoria and DEECA actively manage cultural heritage values on the Parks Victoria estate and in state forests, respectively.

Incidents of damage by visitors, including hunters, to cultural heritage values on the Parks Victoria estate and in state forests are recorded on the shared DEECA and Park Victoria intelligence database. Parks Victoria and DEECA report damage to cultural heritage values to First Peoples - State Relations (FP-SR) in the Department of Premier and Cabinet as the regulator and Traditional Owners of the area. FP-SR is responsible for investigating these reports to identify if there have been breaches of the *Aboriginal Heritage Act 2006*.³²

The Committee believes there is a lack of familiarity around the reporting arrangements for the damage or destruction of Aboriginal cultural heritage sites at game reserves. Given the lack of familiarity with this issue amongst Government departments, the Committee is concerned that the level of awareness amongst hunters may also be low.

FINDING 9: The Game Management Authority is the appropriate authority to educate hunters to identify Aboriginal cultural heritage sites and ensure they are not disturbed in the course of recreational hunting. In addition, hunters should also be made aware of the reporting arrangements for the damage or destruction of Aboriginal cultural heritage sites on state game reserves.

5.2 Social impacts

Duck hunting has a considerable social impact, which is evident through polarising public opinion polls (some of which are noted in Chapter 2).

Organisations and stakeholders highlighted the negative impacts of losing access to large amounts of public land for an extended period during season opening. Others who were residents of towns near hunting locations described disruptions to their amenity caused by gunfire and hunters trespassing on private property.

In contrast, the Committee also heard from stakeholders who were concerned about increasing restrictions to access to public land. This was in addition to restrictions on activities themselves.

Many were concerned that if a ban on native bird hunting were implemented, it would lead to increased government restrictions and further bans on other outdoor recreational activity. In particular, they noted deer hunting and fishing.

³² Ibid.

The Committee emphasises that its recommendation to end native bird hunting is focused on a set of unique issues such as:

- the long-term decline of native bird hunting populations
- the uniqueness of Australian birds as distinct from non-native birds and other pest animals such as deer which the Committee considers should remain available for hunting.
- the exclusionary nature of bird hunting, where large amounts of public land are inaccessible to others.

5.2.1 The exclusive use requirements of native bird hunting

There are certain other outdoor activities that are exclusionary to some extent, through legislative requirements, ministerial declarations or marine zoning. However no other activity requires such a significant exclusive use of public land as native bird hunting.

While some stakeholders noted that non-hunters had access to the land for the rest of the year when bird hunting seasons were closed, others noted they were unable to partake in other recreational activities in game reserves during hunting season.

At a public hearing, the Committee asked a representative from the Department of Jobs, Skills, Industry and Regions for examples of other recreational activities that have a similar exclusionary nature. In a response to question taken on notice, the Department of Jobs, Skills, Industry and Regions gave the following examples:

- major sporting events declared under the *Major Events Act 2009*, which exclude non-participants and unauthorised persons entering sporting competition space
- unauthorised persons are restricted from racing areas during race meetings or official trials under the *Racing Act 1958* (due to commence on 31 December 2023)
- Activity Exclusion Zones under the *Marine Safety Act 2010*, which allow a manager of a waterway to prohibit users from entering certain waterways (e.g. for sculling events held on the Yarra River)
- Vessel Operating and Zoning Rules under the *Marine Act 1988* which exclude people from bathing within 50 metres of a boat launching ramp.

The Committee accepts that native bird hunting only occurs for a quarter of the year, which leaves nine months of the year for the rest of the public to enter public land used during season opening. However it is clear that there is no other recreational activity that excludes members of the public at the same scale as native bird hunting.

5.2.2 Impacts on local residents and amenity loss

Some residents living near native bird hunting areas explained to the Committee that they felt anxious and threatened by the presence of armed people near their homes and disliked the noise levels associated with shooting. However, others argued that hunting grounds had been established for many decades and that residential areas were encroaching on known hunting grounds.

Regional Victorians Opposed to Duck Shooting, an organisation representing ‘those negatively impacted by bird hunting’, provided evidence to the Committee from a local residents’ point of view. In its submission it provided evidence of the three surveys it conducted in 2018, 2021 and 2023, summarising:

The majority of survey respondents said they felt anxiety due to bird shooting occurring nearby. Most said they felt unsafe. Many complained of adverse impacts to mental health and income.³³

Its submission and survey results contained personal examples of residents, including:

- the impact on other animals on properties such as dogs, horses and livestock, which become distressed by the sound of gunshots
- an inability to work from home or loss of sleep caused by gunshots
- a loss of access to local areas.

Elizabeth McCann, Campaign Director of the organisation, described how she and other members felt disturbed by the presence of hunters near their homes, and claimed they leave litter behind:

The gunfire occurs close to our homes, on and adjacent to our properties. That in itself is quite disturbing and destructive enough, but we also contend with armed trespassers, the distressing sight of dead and injured birds, theft of firewood and the aftermath of rubbish and contamination strewn around our properties in the wetlands. We have to console our scared and worried children, take measures to manage petrified pets and move horses and other stock to agistment. The resultant heightened anxiety levels leave some residents legitimately fearful of their safety.³⁴

Kerrie Allen, a spokesperson for Regional Victorians Against Duck Shooting believed the noise from shooting experienced by those living near hunting grounds was in excess of guidelines set by the Environment Protection Authority:

So a typical shotgun is about 155 decibels. We have spoken to an acoustic engineer who said, based on our survey results of where people live, that at 60 metres that noise level is still going to be around 100 decibels. Now, there are a lot of variables – wind, whether it is open country or whatever – but 100 decibels is way over the guidelines. The guidelines are 35 to 50 decibels. Coming into 350 metres, and I think, what was it, 16 per cent of our survey respondents lived within 350 metres, the decibel level was still – I have got to look at my notes, sorry – 85 decibels, so well over. Its noise is shocking. Now, EPA actually has restrictions on the use of gas guns. Gas guns are quieter. They are about 122 decibels, and you are not allowed to use them within 300 metres of a dwelling. So noise is an issue.³⁵

³³ Regional Victorians Opposed to Duck Shooting, *Submission 1,587*, p. 2.

³⁴ Ms Elizabeth McCann, Campaign Director, Regional Victorians Opposed to Duck Shooting, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 63.

³⁵ Ms Kerrie Allen, Spokesperson, Regional Victorians Opposed to Duck Shooting, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 74.

Ms McCann described the impact of hunting nearby on her and her neighbours:

One neighbour has horses that he has to move off the property. They have put up signs along their boundary to keep shooters off their property. The other neighbour suffers post-traumatic stress as he is a war veteran. The shooting is pretty unpleasant for him. He is also a farmer and has problems with trespass on his property.³⁶

One of the principal causes of these issues is residential encroachment on areas used for residential native bird hunting. Victoria's increasing population, including in regional areas, necessitates a need for more housing.

The Committee saw evidence of this on its site visit to Lake Connemara wetlands in Geelong, where new housing had begun to encroach on wetland areas. This included a supermarket that was easily visible from hunting areas.

Ms McCann highlighted this issue 'Whether we like it or not, our population is expanding, and more people live in the regions and in closer vicinity to the shooting areas than they may have 100 years ago.'³⁷

When asked about the concerns of people who live near areas reserved for shooting Barry Howlett Communications Manager at the Sporting Shooters Association Australia (Victoria) said:

People are entitled to their views, and there is a wide range of views on this. A lot of those wetlands, pretty well all of the public wetlands, have been available for hunting since the 1950s at least.³⁸

Mr Snowden agreed with this sentiment:

The game reserve boundary is not expanding out to the houses; the houses are expanding into the game reserve. It is like putting a house next to the airport and complaining about aeroplanes.³⁹

5.2.3 Importance of outdoor recreation for Victorians

Another key issue raised during the Inquiry was access to land for outdoor recreational activities. Stakeholders highlighted the importance of outdoor activities for their personal health and wellbeing. Others noted that their participation in outdoor activities—including hunting—had given them a greater appreciation of nature in general.

Some told the Committee how their participation in outdoor activities led them to join conservation groups as volunteers to help implement rehabilitation.

³⁶ Ms Elizabeth McCann, *Transcript of evidence*, p. 74.

³⁷ *Ibid.*, p. 63.

³⁸ Mr Barry Howlett, Communications Manager, Sporting Shooters Association of Australia (Victoria), public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 46.

³⁹ Mr Darryl Snowden, Conservation and Pest Management Training Development Coordinator, Sporting Shooters Association of Australia (Victoria), public hearing, Melbourne, *Transcript of evidence*, p. 47.

Hunter wellbeing was also a focus of RMCG's 2019 and 2020 reports on the economic contribution of hunting. In survey responses, game licence holders reported a relatively higher overall level of general health and personal wellbeing.

According to the RMCG report the types of hunters with the highest self-reported wellbeing were:

- those who hunt to continue a family or cultural tradition of hunting
- those who go hunting to spend time with friends, for the sport of hunting or to get exercise
- duck or stubble quail hunters.⁴⁰

Troy Gray, Victorian Branch Secretary of the Electrical Trades Union, spoke of the importance of outdoor recreation on union members working on public infrastructure projects:

The jobs at the moment – the big infrastructure ones – are all underground. You go to Swanston Street, you drop 80 metres into the ground and you live six days a week underground. What they look forward to is getting out when they have their bunched up RDOs and long weekends to the outdoors. Whether it be fishing, hunting – ducks, deer – or whatever it may be, it is critical for them to keep going⁴¹

At a public hearing in Sale, Trevor Williams, Mining and Energy Union Victorian District President, spoke about the importance of working-class Victorians having access to traditional pursuits on public land:

Victoria has had a proud history when it comes to access to public land for recreational activities. That principle has been supported by previous governments, whether they be Labor or Liberal. This has enabled generations of Victorians from working-class backgrounds the freedom to enjoy pastimes, including hunting and fishing. These freedoms would not be possible without access to public land and would only be available to the privileged few. Over the years we have seen a sliding decline in the standard of some of the state game reserves – how they are being managed – with poor access in a lot of cases. Hunters have reasonable expectations that tracks should be properly maintained into these areas. Our members believe hunting, fishing, camping, four-wheel driving and motorbike riding should be encouraged and supported by all governments as a healthy pastime for public land users. We would call on all governments to take a conservative approach when assessing the future of long-term held freedoms that people have had, no matter how small that group may seem.⁴²

⁴⁰ RMCG, *Economic contribution of recreational hunting in Victoria*, report for Department of Jobs, Precincts and Regions, Victorian Government, 2020, p. 20.

⁴¹ Troy Gray, State Secretary, Electrical Trades Union, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 18.

⁴² Mr Trevor Williams, Victorian District President, Mining and Energy Union – Victoria, public hearing, Sale, 26 June 2023, *Transcript of evidence*.

5.2.4 Increasing access for other outdoor recreation

Many stakeholders highlighted the increased number of restrictions on outdoor recreation that had occurred over the years through successive governments.

In its submission, the Electrical Trades Union considered the regulation of outdoor activities as ‘outdated and no longer fit for purpose’. It highlighted recreational fishing as the exception, however noted increasing concerns about access from the fishing community.⁴³

At a public hearing, Troy Gray, Victorian Branch Secretary of the Electrical Trades Union, spoke about how the reduced 2023 native bird hunting season had prompted many union members to contact him. He told the Committee the members were concerned that this was another restriction on outdoor recreational activities imposed by the Government:

When the minister’s announcement was made and there was a walk-off on one of the biggest infrastructure jobs in Melbourne, our phones rang off the hook. I do not know how they do it and I would not do it, but the rock climbers were ringing us – we have members that do that. They say 90 per cent of their area has been banned. The gold prospectors rang us; many of our members are into that as well. They say that 60 per cent of their land – and I have no science to back that up – that has gone. The people that ride the horses through many of the state forests rang and said, ‘We’ve been banned from doing that.’ The people that used to just grab a caravan, a barbecue and their dog and go into the Wombat State Forest and go off the park a little bit, which is what you want to do – that has been banned. The people that used to go out and collect firewood in many places – that has been banned. So you name an outdoor recreation – and there is a reason for it, which I can explain later – our members are into it, and it is big to what they do. It is big on their mental health, and it keeps them going to work six days a week to build everything that Victoria needs.⁴⁴

Mr Gray went on to describe the union members’ sentiment that governments would continue to impose further restrictions:

there is a sentiment out there that there is too heavy a hand in regard to outdoor recreation, and there are many examples of that – of gated ways, of treated pine posts being put in there and of heavy machinery being brought in to drop logs on old walking paths that fishermen used to use. Now it is duck hunting. There is talk about changing deer from a ‘game’ definition to ‘vermin’. What is behind that is that they will then helicopter and 1080 those deer and try to eliminate all the deer through it.⁴⁵

The Committee acknowledges that through government restrictions, increasing areas of public land that were once available for outdoor recreation are no longer available. Although the Committee acknowledges that in some instances this has been due to

⁴³ Electrical Trades Union, *Submission 1,794*, p. 18.

⁴⁴ Troy Gray, *Transcript of evidence*, p. 13.

⁴⁵ *Ibid.*, p. 22.

environmental or cultural heritage reasons, it is concerned about mismanagement of public land that has resulted in it being locked out for outdoor recreation.

As noted in Chapter 4, native bird hunting is generally considered a 'highly-substitutable' activity. Those unable to hunt native birds will likely engage in other outdoor activities such as deer hunting, fishing or other outdoor activities.

Given its recommendation to ban native bird hunting, the Committee strongly believes the Government should support access to other outdoor recreational activities and to restoring the natural environment for the benefit and enjoyment of Victorians now and into the future.

Outdoor recreation is important for many Victorians, and the Committee believes that the State Government could do more to support outdoor recreation in Victoria. In particular by converting the existing State Game Reserves used for duck hunting to outdoor recreation reserves, with a priority on recreational activities at these sites. This conversion of land use should be subject to an assessment for Aboriginal cultural significance and environmental significance, especially on Ramsar listed wetlands.

Changing the land use arrangements in this way would allow more Victorians to participate in outdoor recreation activities.

5.3 Management of outdoor recreational areas

The Committee heard from many stakeholders about the conservation efforts by local volunteers.

However others were critical of government management of public outdoor recreational sites. They noted that many sites had seen less upkeep over the years, and some had fallen into disrepair.

Trevor Williams, Victorian District President of the Mining and Energy Union, spoke on this issue at a public hearing in Sale. He compared the quality of local game reserves managed by the Victorian Government with other reserves maintained by Field and Game Australia branches:

I think that your group went into the Heart Morass, which I believe as an area of wetland is a picture, to be honest. I think you would be hard-pressed probably to get a better example. But it would have been interesting if someone had said to you, 'Well, let's go across the river to Dowd Morass', for instance, where you have not got the Field and Game – and others – that have got a fair bit of control about how that is groomed and how the roads and the tracks are maintained, because if you went down to the riverside there, just across the river, in places it is impassable. Now, that has been a state game reserve for a long time.

You would say the same about Jack Smith Lake and the same about Lake Coleman, all those areas where there is not a lot of involvement with the Field and Game as far as maintaining things. The tracks are almost impassable most of the time. And that is what I said in my initial spiel: that if you are a law-abiding duck hunter, for instance,

there should be an expectation that you can get into a state game reserve where you can actually do that activity, but there are places at the moment that are impassable. They are tracks that have been there since they have been state game reserves, and they have slowly gotten worse. I mean, I am 64 years old and I probably have been hunting ducks and other game for 50 years, and I have seen the slow decline. But it is speeding up. I mean, when I did my tour I also went to Jack Smith Lake, which currently does not have water in it. That is another mismanaged wetland.⁴⁶

He also highlighted that tracks did not seem to be maintained during the year, which would also impede people accessing the land for other activities:

The track into such and such is in an atrocious state. It's been unkept all through the year. Something needs to be done so people can get into that area,' there seems to be a lot of red tape about how you actually go about that. I would have thought it would be quite simple – that there would be some sort of budget there. The tracks should be maintained most of the year, because other than what we are interested in, we hear about people wanting to go in there and look at the birds and the bugs and all the other things associated with those wetlands. If duck hunters cannot get in there, neither can birdwatchers.⁴⁷

Mark Richards, Victorian District Secretary of the Mining and Energy Union described an instance where access to public land had been restricted:

In 2019 the upper house Member for Eastern Victoria Jane Garrett had conversations with people about access to Lake Coleman. Because I do not know if anyone is aware, but in 2019, I think it was, or prior to 2019 – there is an area by Lake Coleman which borders the game reserve, I believe. People have been camping there for 80- plus years, from my understanding from all the people we talked to. I talked to different departments to find out what was going on. Apparently Gippsland Water decided there might have been an insurance issue for them, so they just put signs up – with zero consultation with anyone – that said, 'No camping in this area.' So you can still drive there but not camp.⁴⁸

Mr Richards went on to note that although he was referred to a number of public agencies, there had been 'zero maintenance' since his first enquires.⁴⁹

Similarly Troy Gray, Victorian Branch Secretary of the Electrical Trades Union, described current management of access to public reserves as 'horrible', explaining:

I can give you many examples, if you have the time, where access has been cut off for no reason whatsoever and a blind eye has been taken to other environmental damage that has been out there. I think it is very poorly handled. And with the access – whoever governs it – every time we ask the question there are about three different bodies and ministers that are across accessing bushland and coast land and recreation and all

⁴⁶ Mr Trevor Williams, *Transcript of evidence*, p. 31; Ibid.

⁴⁷ Ibid., p. 32.

⁴⁸ Mr Mark Richards, Secretary, Mining and Energy Union – Victoria, public hearing, Sale, *Transcript of evidence*, p. 32.

⁴⁹ Ibid.

the rest of it. It should be under one body, and people that know what they are doing should be doing it.⁵⁰

Michael Watson, Political Officer for the Electrical Trades Union, highlighted that better managed land leads to a better environmental outcome:

I think there is probably a way of putting it: that if you are involved with the outdoors, if it is used, if it is managed, if it is looked at, it will be kept better. It will be in a better state than if it is not. Bush that is closed turns to rubbish. Now, it is important to have undisturbed wilderness for certain animals and things, but the general nature is: the more the bush is used safely and sustainably, the better it is. A better environment is a progressive aim, and hunting and animal management is part of land management. So there is the link between the two there.⁵¹

⁵⁰ Troy Gray, *Transcript of evidence*, p. 14.

⁵¹ Mr Michael Watson, Political Officer, Electrical Trades Union, public hearing, Mwelbourne, *Transcript of evidence*, p. 22.

Chapter 6

Compliance with recreational native bird hunting regulations and guidelines

The Game Management Authority is responsible for enforcing recreational native bird hunting regulations.

Following receipt of the Pegasus Report in 2017, the Game Management Authority has reformed its compliance and enforcement functions and has focused its efforts on education as a means of achieving compliance. However, the Committee has concerns about the way it prioritises its enforcement responsibilities and the inherently difficult nature of regulating recreational native bird hunting across an enormous number of wetlands across the state.

It is intrinsically difficult to enforce compliance with recreational native bird hunting regulations due to the geographically dispersed nature of the wetlands where hunting takes place, and the localised environmental challenges of ensuring hunter compliance on waterways often replete with inaccessible camouflaging vegetation.

The Game Management Authority has limited resources to enforce compliance at Victoria's scores of wetlands. As a result, it has rightly prioritised education as a means of promoting compliance with native bird hunting regulations. As discussed further in Chapter 7, the Committee received evidence were instances of poor behaviour at hunting sites.

However, the Committee has concerns about promoting compliance through education when there is no realistic prospect of widespread enforcement. Hunters who believe they are unlikely to be punished for infractions against regulations may not be receptive to calls to do the right thing. The Committee received evidence of this occurring in the 2023 season.

Given the level of community interest in Victoria's recreational native bird hunting arrangements, the Committee believes there should also be a high threshold for regulatory compliance. However, it is evident that it cannot be achieved to a level that would satisfy a significant proportion of the community.

6.1 The Pegasus Report

In July 2017 the Game Management Authority engaged Pegasus Economics to provide an independent assessment of the authority's compliance and enforcement functions (The Pegasus report).

The report was commissioned by Game Management Authority in response to events on the opening weekend of the 2017 duck hunting season. At Koorangie State Game Reserve at least 260 protected birds were shot, and more than 1,000 downed ducks were not collected.¹

The Pegasus report also examined the appropriateness of its operating model resourcing levels as well as its capacity and capability to deliver its legislative obligations. The report did not investigate the Game Management Authority's other statutory functions, including game monitoring, research and advice.

6.1.1 Problems identified in the report and recommendations made

The Pegasus report identified a series of issues relating to the effectiveness, governance, structure and capability of the Game Management Authority. The report made 27 recommendations for improvements in these areas.²

Boxes 6.1 and 6.2 below provide a summary of the key findings and recommendations of the report.

Box 6.1 Summary of key issues raised in the Pegasus report

Effectiveness

- The Game Management Authority has not been able to effectively deliver its compliance and enforcement responsibilities.
- Non-compliant behaviour and unsanctioned breaches of game hunting laws are widespread and commonplace.
- It is perceived as unable to influence hunter behaviour or sanction illegal or irresponsible behaviours and it is not deemed to be impartial by animal welfare groups and community groups.
- The Game Management Authority's reporting and complaint handling procedures do not meet the standards expected of a contemporary regulator.

Governance

- The Game Management Authority's current approach to regulation is poorly targeted.
- While the Game Management Authority reviews some events, it does not routinely review and evaluate the effectiveness of its compliance and enforcement efforts.

(Continued)

1 Peter Lanaghan and Fiona Parker, 'Officials confirm Victorian hunters killed scores of protected ducks in season opening', 6 November 2017, <<https://www.abc.net.au/news/2017-11-06/vic-hunters-kill-hundreds-of-ducks-near-kerang/9121294>> accessed 5 July 2023.

2 Pegasus Economics, *Assessment of the GMA's compliance and enforcement function*, report for Game Management Authority, Pegasus Economics, Macquarie, 2017, pp. ix-xi.

Box 6.1 continued

- The Game Management Authority lacks scale and critical mass, however, these are not the primary reasons for the lack of effectiveness. The regulatory and institutional frameworks in which the Game Management Authority operates in are quite complex and challenging to regulate in the field.

Structure

- An independent statutory authority is a high-cost model for a small regulator, and the Game Management Authority lacks the infrastructure to effectively support the associated governance and reporting obligations.
- The requirement to work with Victoria Police restricts the Game Management Authority's ability to operate independently, but it is not clear that it limits the Game Management Authority's effectiveness.
- The Game Management Authority is a small statutory body and is vulnerable to capture by the interests that it is seeking to regulate. In addition, the Game Management Authority's role as a regulator needs to be further clarified. The Game Management Authority's independence of its licensing, compliance and enforcement functions needs to be protected.

Capability and capacity

- The Game Management Authority's inability to ensure compliance with the hunting laws has seriously undermined its credibility as an independent and effective regulator and raised questions about the integrity and sustainability of the regulatory regime.
- The Game Management Authority requires access to skilled and qualified communication and marketing experts who can engage effectively with a dispersed and diverse stakeholder base across a wide range of channels and communications media.
- The funding model that the Game Management Authority operates under needs to be reviewed and this should include within in consideration of better ways of managing the demand for Game Management Authority's services.
- There is scope for the Game Management Authority to more effectively manage the demands of its resourcing, including by seeking tighter land access arrangements and more selective regulation of some game species.
- The separation of the Game Management Authority's regulatory functions from other advisor and promotional activities and their location in a larger, related regulator would protect the independence of the Game Management Authority's licensing, compliance and enforcement and provide access to additional regulatory capabilities and support.

Source: Pegasus Economics, *Assessment of the GMA's compliance and enforcement function*, report for Game Management Authority, Pegasus Economics, Macquarie, 2017, pp. vii-viii.

Box 6.2 Summary of key recommendations in the Pegasus report**Effectiveness**

- The Game Management Authority should work with land management authorities to develop more flexible arrangements for land access based on permit and ballot systems. This reform will need to be led by policy agencies.
- Game hunting licences should require more stringent minimum mandatory requirements including testing for knowledge of game hunting laws as well as the obligations and responsibilities of safe and sustainable hunting.
- There should be a requirement that prospective duck hunters demonstrate their attendance at a shotgunning education program prior to the issue of a duck hunting licence.
- Information and education material should be made available in languages that are relevant to the hunting community.
- The Game Management Authority needs to significantly expand its monitoring and information gathering activities, including by enlisting the support of hunting organisations, animal welfare organisations and land holders in undertaking active and passive monitoring of game names and the effectiveness of its compliance and enforcement activities.
- The Game Management Authority should review the priority it attaches in its compliance and enforcement activities to protestor management.
- The Game Management Authority should seek to engage more constructively with stakeholders across a broader range of interests and values.
- The Game Management Authority should improve the transparency of its reporting and complaint handling mechanisms and ensure that arrangements are in place for all complaints to be logged, reviewed and responded to by a senior officer.

Governance

- The Game Management Authority's role as a regulator should be clarified and the independence of its licensing, compliance and enforcement functions protected.
- The Game Management Authority's regulatory functions should be separated from the Game Management Authority's advisor and development functions and located in a larger, more broadly-based regulator.
- If this is not possible the Game Management Authority should put in place appropriate governance arrangements including operations separations, establishment of an enforcement committee and appropriate protocols, to provide additional transparency and protect the independence of its licensing, compliance and enforcement functions.

(Continued)

Box 6.2 continued

- The Game Management Authority should develop a more dynamic approach to compliance and enforcement that is informed by improved information on hunters' understanding of their obligations and better targeted to secure improved compliance outcomes.
- The Game Management Authority should develop an annual compliance strategy that sets out specific compliance and enforcement goals, priorities, strategies and performance measures that are to be applied in the upcoming period, and the basis on which those priorities and strategies have been selected and are to be evaluated against.
- The Game Management Authority's compliance strategies should be informed by improved measures of the knowledge base and compliance posture of the hunters, game farms and other agents that it is seeking to regulate.
- The Game Management Authority should put in place internal arrangements to further protect the independence of its regulatory functions.

Structure

- The existing operating model should be supported by a clear accountability and governance framework that provides a definitive statement of the accountability framework within which the Game Management Authority and its partner agencies are expected to work and detailed agreements between the individual agencies in relation to the identification of priorities, the allocation of responsibilities, resource sharing and dispute resolution.
- The Game Management Authority should seek clarification of the Government's intent regarding the requirement that enforcement operations be undertaken with Victoria Police and, if necessary, refine and clarify the Game Management Authority's Standard Operating Procedure in which this policy is reflected.
- The Game Management Authority should encourage the participation of volunteer resources from hunting organisations, animal welfare groups and community organisations to assist in the collection of information on the effectiveness of its compliance and enforcement efforts and support safe, responsible and sustainable behaviours in the field.

Capacity and Capability

- The funding model under which the Game Management Authority operates should be reviewed. This should include consideration of better ways of managing the demand for the Game Management Authority's services, its approach to regulation, and the balance of resources it allocates to protestor management and enforcement activities relative to persuasive strategies to encourage higher levels of compliance.

(Continued)

Box 6.2 continued

- The Game Management Authority needs to develop the capacity to develop high-level compliance strategies and to apply appropriate regulatory tools and capabilities to solve problems, prevent harm and influence behaviour.
- The Game Management Authority should consider completion of the Australian Government Investigations Standards or demonstration of equivalent qualifications training as a mandatory requirement for staff involved in investigations.
- If the Game Management Authority is to continue to perform surveillance operations, it should ensure that staff have received appropriate training in safe and effective surveillance techniques.

Source: Pegasus Economics, *Assessment of the GMA's compliance and enforcement function*, report for Game Management Authority, Pegasus Economics, Macquarie, 2017, pp. ix-xi.

6.1.2 The Game Management Authority's progress against the Pegasus Report's recommendations

According to the Game Management Authority, all 26 of the accepted recommendations of the Pegasus report have been implemented or are in the process of being implemented. These include recommendations on the effectiveness of the Game Management Authority, the Regulatory Governance and approach to regulation, the operating model and the capacity and capability.³

At a public hearing, Graeme Ford, Chief Executive Officer of the Game Management Authority gave a further update on progress against the Pegasus report's recommendations. He stated that the Game Management Authority had taken the reforms seriously and the organisation has restructured to create four separate divisions:

We have created four divisions inside the Game Management Authority; prior to that it was really one very flatline structure. We have a compliance and intelligence division, led by Paul, which is all the enforcement work. We have stakeholder and hunting programs, which looks after the education and licensing systems; strategy and research, which looks at how we do our communications and research programs – which was probably very limited prior to 2017; and of course there is the corporate service, the back-office functions.⁴

³ Game Management Authority, *Pegasus report progress reporting*, 2022, <<https://www.gma.vic.gov.au/about-us/gma-reporting-and-governance/pegasus-report-progress-reporting>> accessed 5 July 2023.

⁴ Mr Graeme Ford, Chief Executive Officer, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 2.

Mr Ford detailed the progress that had been made in areas relevant to the Game Management Authority's functions following the implementation of the report's recommendations:

A lot of the work we are doing is around setting baselines, so to measure over time. I think that certainly the amount of effort we have put into particularly the research function is about getting a greater understanding or a more robust understanding of what is happening in the bird populations. Clearly one of the priority activities of ours is the sustainability argument, so we need to make sure that hunting does not impact. I think that work is doing very well. I mean, it is still early days, and we have moved to the interim harvest model, which is a cruder form of the adaptive harvest model, where we need to get to. I think that the increased footprint we have, both in the compliance function as well as the education and the awareness function, is paying dividends, as is the licensing system now, where it is a habit for people to go to our website to access the licensing system so we can deliver messages more effectively.⁵

In general, stakeholders agreed that the Game Management Authority had made progress since the Pegasus report was released. However, most witnesses noted that although some progress has been made, the Game Management Authority is unable to meet its legislated regulatory and compliance requirements due to the size of the geographical area it is required to regulate. This issue is discussed further in Section 6.3.4

Barry Howlett, Communications Manager for the Sporting Shooters Association of Australia (Victoria) said the thought that the Game Management Authority had come a 'very, very long way' since the Pegasus report.⁶

Daryl Snowdon, the association's CPM and Training Development Co-Ordinator stated:

I think the monitoring where it is at the moment is a lot better than it has been in the past. Both our association and other hunting associations have pushed in the past for higher compliance activity and for more funding in the GMA for compliance activities. We have always supported that.⁷

Other stakeholders believed that the Game Management Authority is unable to meet its legislated regulatory and compliance requirements due to the size of the geographical area it is required to regulate.

Liz Walker, Chief Executive Officer of RSPCA Victoria appreciates the difficulty the Game Management Authority faces in trying to effectively enforce legislation, however, was concerned with the number of wetlands that Game Management Authority authorised officers attended which was just one per cent of natural wetlands being visited.⁸

⁵ Ibid., pp. 20-21.

⁶ Mr Barry Howlett, Communications Manager, Sporting Shooters Association of Australia (Victoria), public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 31.

⁷ Mr Darryl Snowdon, Conservation and Pest Management Training Development Coordinator, Sporting Shooters Association of Australia (Victoria), public hearing, Melbourne, *Transcript of evidence*, p. 33.

⁸ Dr Liz Walker, Chief Executive Officer, RSPCA Victoria, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 16.

Lisa Palma, Chief Executive Officer and Executive Director of Wildlife Victoria highlighted that her main concerns relating compliance and enforcement capability. She also stated that Wildlife Victoria has not observed a substantive increase in the number of Game Management Authority authorised officers since the review was completed.⁹

The Committee acknowledges that the Game Management Authority has undergone structural changes and has implemented significant improvements in response to the Pegasus report. However, the Committee is concerned about the inherent difficulties with compliance and enforcement activities over a large geographic area with limited resources.

In addition, the Committee notes the practical compliance issues created by the physical environment of native bird hunting, which are often reedy lakes with low visibility from shores.

FINDING 10: The Game Management Authority has made significant progress to implement changes based on the findings of the Pegasus report in 2017. However, there are inherent difficulties with the Game Management Authority's legislated compliance requirements as identified in the report, which in the Committee's view cannot be rectified without significant investment in additional resourcing.

6.2 The Game Management Authority's approach to compliance and enforcement

The Game Management Authority undertakes compliance and enforcement activities across Victoria's wetlands to ensure native bird hunting is sustainable, humane and minimises impacts on non-game animals. Its compliance resources are directed based on intelligence received from the public as well as its own experience. However, its presence across Victoria's wetlands during the season is limited due to resourcing and operational constraints.

The organisation expends a sizeable proportion of its enforcement resources ensuring public safety at a limited number of locations where both hunters and rescuers are in attendance. This comes at the expense of enforcing sustainable, humane hunting of game species at scores of wetlands across the state where rescuers are not in attendance.

The Game Management Authority does not have the resources to prioritise both public safety and ensure sustainable and humane hunting of birds at all of Victoria's wetlands. The number and geographic spread of wetlands eligible for hunting makes this task almost impossible. Faced with a challenging compliance role, the Game Management Authority also looks to education to positively influence compliance

⁹ Ms Lisa Palma, Chief Executive Officer and Executive Director, Wildlife Victoria, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 91.

with the regulations. The Committee has concerns that promoting compliance through education without the realistic prospect of widespread enforcement is not sufficient. This is particularly the case given the high level of public concern for animal welfare.

6.2.1 Current compliance resources and outcomes

The Game Management Authority informed the Committee that since receiving the Pegasus Report, it has reformed its compliance and enforcement functions. A compliance and intelligence division has been introduced which has additional resources and capabilities to enforce hunting regulations. Mr Ford explained:

Since 2018 the compliance and intelligence division has grown from five AOs to 16 AOs. They are structured up into two regional teams, east and west Victoria. They have got offices in Ballarat, Bendigo, Benalla, Traralgon and Lakes Entrance. We have got a much greater geographic footprint as well as additional resources. We have also in that time put in an intelligence analysis capability, which we did not have prior, which has been very helpful in the way we operate, and we have got dedicated staff to carry out that function.¹⁰

Mr Ford also said: 'There are an additional 5 education and program officer team members, who are also Authorised Officers, who can conduct compliance and enforcement duties at peak times.'¹¹

The Committee also heard that the enforcement division has introduced new technology to improve its evidence gathering capabilities:

In the enforcement division this led to some new technology we introduced – so body-worn cameras, the same as police wear. They are very effective on the wetlands, particularly when you are dealing with people with guns. The cameras are very good at defusing situations. They are also providing obviously very clear evidence if there is an offence.¹²

The Game Management Authority publish the results of their compliance efforts in their annual report. The most recent figures for 2022 are outlined in Box 6.3.

¹⁰ Mr Graeme Ford, *Transcript of evidence*, p. 2.

¹¹ Ibid.

¹² Ibid., p. 3.

Box 6.3 A summary of the Game Management Authority's compliance activities for the 2022 season

Summary of 2022 duck season activities:

- GMA Authorised Officers (AOs) checked 1,253 Game Licences and 979 hunter bags. There was 99.90 per cent hunter compliance with the legislated daily bag limit.
- A total of 38 breaches were detected throughout the season.
- GMA AOs issued four Banning Notices, one of which was later withdrawn.
- 18 investigations were commenced, and 22 Penalty Notices were issued.
- GMA AOs attended a combined total of 641 wetlands, noting numerous wetlands received multiple visits.
- Victoria Police provided regulatory support throughout the season.

Summary of 2022 quail hunting season activities:

- GMA AOs conducted 35 patrols dedicated to monitoring quail hunting activity.
- A total of 31 Game Licences and hunter bags were checked. There was 100% hunter compliance with the legislated bag limits.
- There were two reports of quail callers being used during the season. One of these matters is the subject of ongoing inquiries.

Source: Game Management Annual Report 2021–22, p. 22.

Table 6.1 below, provides data on the offences detected by the Game Management Authority during the 2023 duck season.

Table 6.1 Offences detected throughout the 2023 duck season

Offences detected	Hunters	Rescuers
Banning Notices	–	5
Breach of S86 Notice	9	–
Enter/ Remain in a specified hunting area	–	3
Exceed bag limit	2	–
Expired game licence	1	–
Fail to immediately kill game which is alive when recovered	1	1
Fail to leave wing attached	7	–
Fail to retrieve	1	–
Hinder/harass	–	3

Offences detected	Hunters	Rescuers
Littering	–	1
No game licence	2	1
Possess game when unlicensed	–	1
Unattended campfire	3	–
Use/ possess toxic shot	4	–
Total offences	30	15

a. Rescuer related.

Source: Game Management Authority, Enforcement Outcomes, <<https://www.gma.vic.gov.au/enforcement/compliance-statistics>> accessed 28 July 2023.

The Committee heard that in total the Game Management Authority checked the licences of 11% of active hunters and the bags of 9%. The Committee heard that active hunters comprise 50 to 60% of the 58,332 game licence holders in Victoria.¹³

Mr Ford estimated that between quarter and a third of the Game Management Authority's total resources are taken up with duck hunting, and the rest on other game species such as deer.¹⁴

The Game Management Authority told the Committee that only 3 or 4% of its regulatory efforts in relation to duck hunting are focused on private property,¹⁵ despite an estimated 50% of duck hunting occurring on private property.¹⁶ There were no compliance visits to private properties in 2023.¹⁷

The following sections provide an overview of the issues raised relating to how the Game Management Authority approaches compliance and enforcement and the intrinsic difficulties associated with its compliance and enforcement responsibilities.

6.2.2 Reporting and intelligence-based resource allocation

The Game Management Authority's compliance and enforcement resources are small despite having a large geographical area it is required to monitor. As a result, it concentrates its resources where its intelligence and experience indicate there is a risk of non-compliance.

However, some stakeholders argued that this approach resulted in their reports being submitted with little prospect of enforcement. They detailed how they had provided

¹³ Ibid., p. 6; Game Management Authority, *Game licence Statistics*, p. 6.

¹⁴ Mr Graeme Ford, *Transcript of evidence*, p. 35.

¹⁵ Ibid., p. 5.

¹⁶ Mr Simon Toop, Director, Strategy and Research, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 5.

¹⁷ Mr Paul Stevens, Director, Compliance and Intelligence, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 9.

evidence of non-compliance and illegal activity to the Game Management Authority but were dissatisfied with the outcome or lack of investigation into the allegations.

Mr Ford said the compliance efforts are focused where the organisation's intelligence and experience suggest the risks of harms will be greater:

My point would be that our effort is targeted where we think we will need to do the most work to provide the best benefit to the community, based on identifying where there is a risk of priority harms.¹⁸

This approach has been formalised in the Ministerial Statement of Expectations for the Game Management Authority 2020–2022. The document sets out the following expectation in relation to compliance:

I expect the GMA to build on its understanding and use of risk-based and intelligence-led enforcement programs through which it can monitor, measure and improve compliance. This includes prioritising compliance effort according to the risk to the community.¹⁹

The prioritisation of risks to the community is discussed in Section 6.2.3.

The Committee heard that while the Game Management Authority allocates its compliance resources based on intelligence, it does not act as a first responder. Sue Williams from Regional Victorians Opposed to Duck Shooting said:

it would be good if GMA had people available. If opening time is at 5 am, at sunrise or prior to sunrise, then that is when there should be people available for people like us to ring and say, 'Listen, this is happening at such and such a place right next door to me; is there an officer available to go and check it out?' But there is not anyone there when the problems are happening.²⁰

Mr Ford explained that the information provided by the public is used to build intelligence, which may contribute to initiating enforcement actions. However he stated the organisation does not routinely send staff to respond to single complaints:

I think it is important to understand that GMA are not a first responder. Any report that comes through is actually captured and reported upon. So it might be that if we get a theme of illegal hunting or early shooting, we will then target a regulatory response. We will not get a complaint come through and all of a sudden send and divert staff from what has already been identified in our approach for a particular day. That can change, and it is a living document where we change and update it accordingly as required. It is very dynamic, as you could probably appreciate during the duck season.

¹⁸ Mr Graeme Ford, *Transcript of evidence*, p. 5.

¹⁹ Minister for Agriculture Hon. Mary-Anne Thomas MP, *Game Management Authority - 2020-2022 Ministerial Statement of Expectations*, (n.d.), <https://www.gma.vic.gov.au/_data/assets/pdf_file/0007/694906/20210608-Letter-fr-Minister-M-Thomas-MP-GMA-2020-22-SOE.pdf> accessed 17 June 2023.

²⁰ Ms Sue Williams, Project Officer, Regional Victorians Opposed to Duck Shooting, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 71.

So if we get a number of complaints for particular areas, we will then start to focus on that area or that type of conduct to try to get the regulatory outcome we are after.²¹

When the representatives from Regional Victorians Opposed to Duck Shooting were asked if they had ever seen officers from the Game Management Authority, they replied:

Kerrie ALLEN: Personally, very rarely. Sue?

Sue WILLIAMS: I have never seen them.

Elizabeth McCANN: I have never seen them. I have got fantastic view. It is a 180-degree view over the wetland where the shooting happens, and I have never seen the GMA here. I have reported illegal shooting – there has never been follow-up – both to the police and the GMA. I have never seen them.²²

However, Fikret Apolzgen from the Australian Cypriot Sport Shooting Association said he saw the Game Management Authority carry out compliance activities about 50% of the time he was out hunting:

Those bigger lakes that you go to which hold more birds and are a little bit more publicised, the GMA has got a lot of presence. Sometimes the smaller lakes tend to dry up towards the end of the season, so those bigger lakes are the ones that we actually try to attend, and, yes, GMA has always got a presence.²³

...

Just on the closing weekend, GMA attended our camp, looked at all our licences, tested all the birds and looked at all the shot. They have been proactive, in our opinion.²⁴

6.2.3 Criticisms of reporting mechanisms and follow-up

The Committee heard frustrations about the accessibility of reporting mechanisms and follow-up action from the Game Management Authority. Ms McCann from Regional Victorians Opposed to Duck Shooting criticised the availability of a reporting telephone line and slow responses from email reports:

There are two ways that people can make a report. One is through the Game Management Authority directly. GMA is only available by phone during business hours, so Monday to Friday, 9 to 5.

You can make a report online, but typically what happens then is that people get a response back in an email saying, 'Thanks. We've got your report. We'll pass this to an internal panel,' which usually happens in about five days, 'and then we'll make a

²¹ Mr Graeme Ford, *Transcript of evidence*, p. 32.

²² Ms Elizabeth McCann, Campaign Director, Regional Victorians Opposed to Duck Shooting, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 66.

²³ Ms Fikret Alpozgen, Secretary, Australian Cypriot Sport Shooting Association, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 69.

²⁴ *Ibid.*, p. 66.

decision as to whether we investigate this complaint.' Usually by the time GMA get to that report or that complaint the activity has stopped by then and it is not able to be investigated.²⁵

Regional Victorians Opposed to Duck Shooting conducted a survey²⁶ that found not all incidents are reported to authorities and of those that were, respondents were not satisfied with the follow up action:

The stats that came in from the survey of those 821 respondents, about a quarter said they had witnessed what they believed was illegal behaviour. Of the ones that actually reported that to authorities – and a lot do not; they just feel there is no point – just over 10 per cent felt that those reports were handled appropriately, so that was a bit of a red flag.²⁷

However, Mr Ford told the Committee that the Game Management Authority had implemented a case management system with improved tracking of cases:

We have also put in a case management system which allows much more tracking of what is happening inside these events. I know there has been a lot of commentary around complaints that come in and how they are managed. Well, we have a system now that manages that quite effectively as far as we are concerned.²⁸

Paul Stevens from the Game Management Authority informed the Committee there is an intake assessment panel for complaints. He gave an overview of the process the panel takes when considering complaints:

So any complaint that comes in gets recorded in our case management system. They get notified within three business days that their complaint has been received. They get notified of the date we are going to send it to our intake assessment panel to review. I am the chair of that panel. We have two team leaders who are part of that panel. We call in avian experts or legal people to determine and assess and provide expert information in regard to assessments. We then determine what the next course of action is – is there a prima facie case to warrant investigation or not? All complainants are notified within five business days of that outcome of determination, and if an investigation continues on, it will go on.²⁹

Ms Oogies from Animals Australia described poor handling of one case, and said overall they believed there was not a willingness by the Game Management Authority to progress cases:

Across the board what we found is that there is not a willingness to fully investigate or to take it further through. Therefore what we have is a situation where the regulator is not providing a situation where hunters could think for a moment that they are going to

²⁵ Ms Elizabeth McCann, *Transcript of evidence*, p. 65.

²⁶ The Committee notes Regional Victorians Opposed to Duck Shooting's acknowledgement that this survey was 'self selecting'.

²⁷ Ms Kerrie Allen, Spokesperson, Regional Victorians Opposed to Duck Shooting, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 72.

²⁸ Mr Graeme Ford, *Transcript of evidence*, p. 3.

²⁹ Mr Paul Stevens, *Transcript of evidence*, p. 23.

be sanctioned for any breaches. It is just a very frustrating system. We continue to do it because we think it is worthwhile bringing it to the fore.³⁰

However, Paul Stevens told the Committee the issues reported by Animals Australia were assessed and after seeking legal advice it was decided the matters could not be taken any further.³¹

Mr Stevens told the Committee that there is sometimes not enough evidence to proceed with the reports the organisation receives:

Sometimes it might be just the weight of evidence – there is contradictory evidence and not enough to independently corroborate what has been alleged. Sometimes it might be just a technicality – so it is just about being able to identify, go through and listen to the interviews, weigh up the evidence independently and assess where it is at.³²

Graeme Ford said the Game Management has engaged with Animals Australia and officials from the then Department of Environment, Land, Water and Planning to outline the level of evidence needed to be able to take compliance action.³³

George Bucchorn, a former Manager of Compliance at the Game Management Authority described the difficulties in performing his role at the agency from 2016 to 2018:

when I tried to increase the level of reporting accountabilities, I was criticised and stopped. I was told that I was creating too much paperwork and was stopping the senior game officers from doing their jobs. I also wanted to develop working relationships with various protest groups and rescuers, as I saw them as a valuable resource in assisting with enforcement and an invested stakeholder. I felt that if we could develop mutual trust and goodwill, we could work together along the lines of the police and Neighbourhood Watch system. Again I got no support.

I started to see that complaints that were being lodged with the GMA were being routinely dismissed without any effort being made. I also witnessed the turning of a blind eye to cruelty offences.³⁴

6.2.4 A focus on public safety at the expense of other compliance priorities

The Game Management Authority explained that it focuses its resources on where there is the potential for the greatest harm.³⁵

³⁰ Ms Glenys Oogjes, Chief Executive Officer, Animals Australia, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 37.

³¹ Mr Paul Stevens, *Transcript of evidence*, p. 23.

³² *Ibid.*, p. 6.

³³ Mr Graeme Ford, *Transcript of evidence*, p. 23.

³⁴ Mr George Buchhorn, Former Manager of Compliance, Game Management Authority, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 76.

³⁵ Mr Paul Stevens, Director, Compliance and Intelligence, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 25.

Paul Stevens from Game Management Authority, when asked what he considers to be the greatest harm, answered public safety. He elaborated that the greatest risk to public safety occurred where rescuers and hunters came into contact with each other:

The issue is where we have hunters and protesters on the wetlands together. As you would be aware, that can be quite a combative situation and we need to be cognisant of that.³⁶

Mr Stevens was asked if he was aware that hunter non-compliance happens in areas that are away from protesters. And further, why resources weren't being put into areas where there were no rescuers present. He replied 'we focus on the area of the greatest harms, where the public safety issue is the greatest concern for us. They are the greatest harms, and that is what we focus on'³⁷

In relation to the amount of resources that are put into attending areas where there are protestors and hunters, Mr Stevens said it 'consumes our regulatory effort'.³⁸ The Committee believes it is fair to say that a sizeable proportion of the GMA's compliance and enforcement efforts are spent in this regard.

The Committee agrees that there is the potential for harm where conflict may arise between hunters and rescuers. However, according to the Game Management Authority's *Compliance and enforcement policy 2020*, the organisation has three other compliance priorities in addition to public safety:

- animal welfare
- sustainable game harvesting
- non-game protected wildlife.

Enforcement of these priorities is needed not only at the few locations where hunters and rescuers attend, but also at potentially thousands³⁹ of other wetlands where recreational native bird hunters attend.

The Committee believes that while ensuring public safety is vital, it should not come at the expense of all other compliance priorities. The Committee was informed that Victoria Police and other Authorised Officers are deployed on the opening weekend of the duck hunting weekend to ensure public safety.⁴⁰

However, during the recreational duck hunting season the Game Management Authority is the lead regulator for its other compliance priorities. These include ensuring animal welfare, sustainable hunting and the protection of non-game

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ibid., p. 9.

³⁹ Ms Jo Wilkinson, Consultant, Animals Australia, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 40. The figure of 20,000 wetlands was not officially supplied to the witness by a Government agency, and cannot be verified by the Committee.

⁴⁰ Mr Paul Stevens, *Transcript of evidence*, p. 25.

species.⁴¹ If the Game Management Authority fails to ensure sufficient compliance in these areas, no other Government agencies are empowered to take them up and there is a danger these important issues could be neglected.

FINDING 11: The majority of the Game Management Authority's compliance and enforcement resources are deployed ensuring public safety at a limited number of locations where hunters and rescuers are both in attendance. This comes at the expense of the Game Management Authority's other compliance priorities including of ensuring sustainable hunting, the humane treatment of game animals and minimising impacts on non-game and protected species.

6.2.5 The difficulty of enforcing compliance across a large geographic area

The Game Management Authority prioritises its resources based on the area it believes has the highest potential for harm, which is public safety. It also has an intelligence-based approach to compliance, which makes a more efficient use of resources. The Committee heard that the organisation prioritises its resources in this way because it is not feasible to enforce compliance across the large geographic area that encompasses all of Victoria's wetlands open to recreational native bird hunting.

Paul Stevens from the Game Management Authority said 'I think it is implausible to think you are going to be at every wetland at any given time, so we use a targeted approach'.⁴²

The total area available for recreational native bird hunting is considerable. James Todd, Chief Biodiversity Officer at the Department of Energy, Environment and Climate Action gave an indication of the scale:

Obviously hunting can occur on private and public land, but in terms of the public land estate there are approximately 3.5 million hectares of public land where duck hunting is possible, based on the land classification.

Then the other bit about that is that the primary locations near waterways cover about 285,000 hectares, including about 75,000 hectares of state game reserves.⁴³

A number of stakeholders expressed the view that this area is too large to be able to effectively regulate, Lisa Palma, Chief Executive Officer and Executive Director of Wildlife Victoria said:

Given the geographic scale of Victoria's wetlands, with shooting on both public and private land, we contend it is near impossible for the GMA to monitor all of the wetlands where duck shooting takes place, particularly where shooters are very few in number

⁴¹ *Game Management Authority Act 2014* (Vic) s 6.

⁴² Mr Paul Stevens, *Transcript of evidence*, p. 25.

⁴³ Mr James Todd, Chief Biodiversity Officer, Department of Energy, Environment and Climate Action, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 57.

and widely dispersed, which is what we have seen the last couple of years, and given wetland topography.⁴⁴

Jo Wilkinson, a Consultant at Animals Australia expressed the same view:

Just in terms of numbers, GMA keeps very tight lips about how many wetlands there are available for duck shooting, but unofficially we have been told it is 20,000 wetlands, plus streams and waterways. Now if you just look at the numbers, you could have an entire army trying to supervise that, and they could not be everywhere.⁴⁵

The Committee agrees that the geographic size of Game Management Authority's area of operations makes enforcement difficult. In addition, it is not feasible to conduct enforcement at an acceptable level over such a large geographical area without a significant increase in resources.

Hunting is permitted in areas where retrieval of wounded birds is very difficult, such as reeds that are inaccessible to shooters, rescuers and officials.

George Buchhorn, a former compliance manager at the Game Management Authority described how the organisation's compliance resources were not proportionate to the task:

Unfortunately, given the size of the GMA and the small number of enforcement officers in the whole state of Victoria – and we are not just talking about duck shooting, we are talking about deer and quail – it is just impossible with those sorts of numbers to enforce any sort of regulation.⁴⁶

The Committee asked Lisa Palma from Wildlife Victoria if she thought the Game Management Authority would be able to fulfil its geographically dispersed compliance and enforcement role if it were provided more resources. Her view was negative, explaining:

It would be incredibly difficult. Given the size of the state, the number of wetlands, the fact that shooting occurs both on public and private property and the wide dispersal of shooters as well, I think it would be incredibly difficult for the GMA to be able to cover the entire state to supervise shooter behaviour wherever they are.

I think it is impossible. For it to be possible would require, I suggest, a substantive increase in the number of authorised officers at the GMA so that there is one authorised officer for every shooter.⁴⁷

⁴⁴ Ms Lisa Palma, *Transcript of evidence*, p. 79.

⁴⁵ Ms Jo Wilkinson, *Transcript of evidence*, p. 40. The figure of 20,000 wetlands was not officially supplied to the witness by a Government agency, and cannot be verified by the Committee.

⁴⁶ Mr George Buchhorn, *Transcript of evidence*, p. 78.

⁴⁷ Ms Lisa Palma, *Transcript of evidence*, p. 89.

Her view was shared by Helen Round, an individual who shared her experiences as an animal rescuer, who said:

And when you say things have gotten better, it was decided by the Pegasus report that no matter how much public money was wasted on enforcement or anything, it is logistically impossible for duck shooting to be regulated. No matter how many officers you have, you cannot cover every wetland, and these atrocities occur at every wetland.⁴⁸

FINDING 12: Victoria's land available for recreational native bird hunting is geographically vast and dispersed. This makes it improbable for the Game Management Authority to enforce compliance with hunting regulations with the resources they have.

6.2.6 Improving compliance through education and training

The Committee was informed that the Game Management Authority focuses on education as a means to positively influence compliance with hunting regulations. This helped to address the practical difficulties associated with enforcing compliance across such a large area.

Mr Ford explained his view that training and education delivered better outcomes than compliance enforcement:

I think our point was that it is not necessarily the compliance effort that is going to make the significant difference there. It is the training and education and standards you set before you allow people to hunt that will make the difference.⁴⁹

The Game Management Authority has developed a number of education resources to relation sustainable and humane hunting practices. These includes:

- Manuals and handbooks. These include *Game hunting in Victoria, a manual for responsible and sustainable hunting*, which provides an in-depth description of hunting ethics, techniques and laws. Other resources include the *Shotgunning Education Program Handbook* and the *Introduction to hunting* manual.⁵⁰
- Online modules, where participants can complete training courses online on topics such as:
 - hunting essentials
 - duck hunting basics
 - quail and introduced game birds.
 - firearms safety⁵¹

⁴⁸ Ms Helen Round, public hearing, Sale, 26 June 2023, *Transcript of evidence*, p. 45.

⁴⁹ Mr Graeme Ford, *Transcript of evidence*, p. 10.

⁵⁰ Game Management Authority, *Education*, <<https://www.gma.vic.gov.au/education>> accessed 17 July 2023.; Game Management Authority, *Reduce Wounding*, <<https://www.gma.vic.gov.au/hunting/duck/reduce-wounding>> accessed 17 July 2023.

⁵¹ Game Management Authority, *New online education modules*, 2023, <<https://www.gma.vic.gov.au/education/online-learning-materials>> accessed 14 July 2023.

- The DuckWISE online education video.⁵²
- Practical in-person training such as the Gamebird Hunting Essentials Masterclass, which has been developed by Field & Game Australia and the Sporting Shooters Association Australia (Victoria). The masterclass is a practical in-person workshop which helps participants with marksmanship, estimating distance, matching shot load to species and bird retrieval strategies.⁵³
- The Game Management Authority website also contains educational resources relating to firearms safety, non-gamebirds, non-toxic shot and avian influenza.⁵⁴

Field & Game Australia and Sporting Shooters Association Australia (Victoria) provide the shotgun education program in association with the Game Management Authority.⁵⁵ The program has been underway since the mid-2000s and is promoted heavily by the Game Management Authority.⁵⁶

The aim of these education resources is to equip hunters with the tools and training to practice ethical hunting methods. The Committee heard that since receiving the Pegasus report, the Game Management Authority has increased its focus on communication and getting these messages to hunters and the wider community.⁵⁷

Graeme Ford from the Game Management Authority said that educating hunters on responsible hunting practices could act to promote compliance with regulation and prevent infractions. He said, 'If the education level and knowledge base lifts and people are reinforcing that with the people they are hunting with or other hunters, I think that is quite effective.'⁵⁸

Simon Toop expanded on this view:

I think in our wounding reduction action plan that [education] is one of the key critical actions. It is the first action: leadership and changing the culture of hunting. So getting that self-regulation is critical, that peer pressure to do the right thing, and then using an intelligence-led and risk-based approach to regulation. Then that can target the places where the harms are occurring. But really our hunters have to have an improved standard of behaviour and they have to be able to pull each other up in the field or challenge each other when they are doing the wrong thing, so that is really critical to getting that good compliance base to start with.⁵⁹

⁵² Game Management Authority, *Duck WISE Education Video*, 2021, <<https://www.gma.vic.gov.au/education/duck-hunting-education/duck-wise-education-video>> accessed 17 July 2023.

⁵³ Game Management Authority, *Gamebird Hunting Essentials Masterclass*, 2021, <<https://www.gma.vic.gov.au/education/duck-hunting-education/gamebird-hunting-essentials-masterclass>> accessed 17 July 2023.

⁵⁴ Game Management Authority, *Education*.

⁵⁵ Mr David Laird, Hunting Development Manager, Sporting Shooters Association Australia (Victoria), public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 41.

⁵⁶ Mr Simon Toop, *Transcript of evidence*, p. 17.

⁵⁷ Mr Graeme Ford, *Transcript of evidence*, p. 2.

⁵⁸ Ibid., p. 25.

⁵⁹ Mr Simon Toop, *Transcript of evidence*, p. 26.

Mr Ford explained that the Game Management Authority works to embed these responsible hunting practices by working with hunting organisations to communicate the practices to their members.⁶⁰

At a public hearing in Sale, the Committee heard from Gary Howard OAM, a local hunter-conservationist and caretaker of the Heart Morass wetlands project. He told the Committee he believed that hunters influencing their peers to carry out ethical hunting practices was the biggest factor in influencing hunters to do the right thing:

Peer pressure is probably the biggest factor that can be brought to bear on hunters that are doing the wrong thing, and by and large I see them in the minority. The majority of hunters that I interact with in this area are quite ethical and follow the rules. I think probably the biggest thing is peer pressure. Yes, enforcement is one thing, but ultimately it is peer pressure that will rein in this sort of activity.⁶¹

The Committee heard evidence that the Game Management Authority's push for education is making some progress. When Fikret Alpozgen was asked where he learnt about humane dispatch methods he said:

GMA – GMA releases websites. Education – we run a pre duck season education class on any changes in regulations. It is something I am quite up there with in terms of legislation. It is all about the education of hunters.⁶²

Game Management Authority representatives told the Committee that the dispatch guidelines were the most popular page on the agency's website.⁶³

However, Kerrie Allen from Regional Victorians Opposed to Duck Shooting offered a different view, stating that the shotgun education program had 'very low take-up'.⁶⁴

Simon Toop from the Game Management Authority acknowledged that the take-up of the shotgun education program was relatively low, with approximately 300 participants last year.⁶⁵ However, he argued that the low take-up was part of the reason why the organisation has recommended to the Government, though the draft wounding reduction action plan, that proficiency testing be made mandatory.⁶⁶

6.2.7 The Waterfowl Identification Test

As discussed in Chapter 2, all those applying for a game licence to hunt ducks must first pass a Waterfowl Identification Test. This test aims to ensure that hunters can

⁶⁰ Mr Graeme Ford, *Transcript of evidence*, p. 28.

⁶¹ Mr Gary Howard OAM, public hearing, Sale, 26 June 2023, *Transcript of evidence*, p. 61.

⁶² Ms Fikret Alpozgen, *Transcript of evidence*, p. 65.

⁶³ Mr Graeme Ford, *Transcript of evidence*, p. 34.

⁶⁴ Ms Kerrie Allen, *Transcript of evidence*, p. 71.

⁶⁵ Mr Simon Toop, *Transcript of evidence*, p. 32.

⁶⁶ Ibid.

correctly identify game and non-game species by showing a series of videos and asking hunters to identify the species. A score of 85% or greater is required to pass.⁶⁷

Daryl Snowdon, Conservation and Pest Management and Training Development Coordinator at Sporting Shooters Association of Australia (Victoria), gave an overview of the difficulty of the test:

Officially all you had to do in the past was turn up to a GMA office and sit the test. Now you have to actually complete some online training modules before you sit the test. The bar has been raised to a point now where a large percentage of hunters are failing it – prospective hunters. They are not hunters at that stage; they are sitting the test for the first time to become hunters. There is a huge proportion of those that are now failing. I believe the numbers are in the 80 per cent sort of region.⁶⁸

Mr Snowdon added that because of the demanding nature of the test, Sporting Shooters Association Australia and Field & Game Australia were providing two-week courses to prospective hunters to educate them on waterfowl identification in preparation for the test.⁶⁹

Fikret Alpozgen also pointed out that the test is rigorous and complements hunting culture which is respectful towards rules and regulations.

I remember when I sat for my WIT test. If you get one answer wrong, you get it wrong, you do not get your licence and, you know, you do not get the opportunity to hunt ducks. We teach and we educate on 'If you're not sure, don't shoot'. It is as simple as that. The people in our circle and the people that we hunt with, we do the right thing all the time.

In contrast, other stakeholders opposed to native bird hunting criticised the test.

Animals Australia made comparisons to testing requirements in Denmark, where prospective hunters must undertake mandatory training over a weekend and at a cost of around \$1,000 AUD.

Many noted that the test only needs to be taken once. However other stakeholders gave comparisons to other licences (including a drivers licence) that do not require additional and ongoing testing after completing a licence.

The Committee notes that hunters visiting from overseas or interstate and children aged 12 to 17 do not need to pass the WIT as long as they are accompanied by a hunter that has passed it.

⁶⁷ Game Management Authority, *Waterfowl Identification Test*, <<https://www.gma.vic.gov.au/licencing/waterfowl-identification-test>> accessed 16 May 2023.

⁶⁸ Mr Daryl Snowdon, *Transcript of evidence*, p. 39.

⁶⁹ Ibid.

6.2.8 Hunter knowledge survey

The Game Management Authority conducted a hunter knowledge survey in 2020 to measure the impact of its renewed focus on hunter education.⁷⁰ Graeme Ford said that the knowledge test results set a baseline and that they would conduct another test in a few years to measure the progress they are making in terms of educating hunters.⁷¹

Many stakeholders opposed to native bird hunting highlighted survey findings that:

- 86% of participants ‘did not know’ how dispatch ducks that had not died instantly
- 80% ‘could not tell the difference’ between game ducks and protected species
- 86% were unaware of the risk they pose to human safety.

In clarifying the results, Simon Toop noted that the question on dispatching downed ducks required participants to select three correct answers for the question to be considered correct. He also noted that at least 80% of participants selected a correct answer, however 50% incorrectly selected windmilling:

With the test – it was quite a difficult test, I might say. In many of the questions you had to answer multiple answers correctly in order to get the question correct. For that particular one, 13 per cent chose all three of the correct options out of the four put to them. Eighty per cent correctly chose swatter load, 50 per cent chose cervical dislocation and 40 per cent chose pithing. The issue was that 50 per cent chose breaking the duck’s neck, so windmilling it.⁷²

In correspondence to the Committee, the Game Management Authority also clarified the result of the question relating to game ducks and protected species:

A multiple-choice question in the knowledge survey asked: ‘why is it important to correctly identify a game duck?’. There were four options provided, three of which were correct. While 20 per cent of participants selected all three correct answers to the question, 97 per cent of participants selected the most important answer, which was that protected species were not mistakenly shot.⁷³

The Committee notes the issues identified with the structure of the test and the mixed results it produced. The Committee hopes the Game Management Authority can produce a test that is more representative of hunter knowledge so that its progress in educating hunters on ethical practices can be more accurately measured.

⁷⁰ Mr Graeme Ford, *Transcript of evidence*, p. 16.

⁷¹ *Ibid.*, pp. 17-21.

⁷² Mr Simon Toop, *Transcript of evidence*, p. 19.

⁷³ Game Management Authority, covering note to Hunter Knowledge Survey report findings, received 24 April 2023.

Chapter 7

Hunter and rescuer compliance with regulations

The Committee received evidence about concerns with the rate of wounding of native birds in recreational hunting, retrieval of wounded birds and the techniques used to dispatch them. In addition, there was unease about compliance with season regulations and reports of anti-social behaviour amongst some hunters.

The Committee also received evidence of rescuers who were wilfully acting unlawfully. This included allegations of breaches to regulations on proximity to shooters and retrieving downed birds before hunters could reach them.

As discussed previously, the Committee is aware of the significant public discourse relating to native bird hunting. The Committee strongly condemns anti-social and otherwise unlawful behaviour and hopes the findings and recommendations of this report will be used by the Victorian Government in an effort to address these issues.

7

7.1 Wounding regulations and guidelines

Wounding birds is an inevitable consequence of recreational native bird hunting.¹ When a bird is wounded by a non-lethal shot, it must be immediately followed up and killed humanely—a practice euphemistically known as dispatching.

The wounding of animals not involved in hunting is an offence under the *Prevention of Cruelty to Animals Act 1986*. Game animals wounded in the pursuit of hunting are specifically excluded from the provisions of the Act.²

While game birds are exempt from cruelty offences under Prevention of Cruelty to Animals Act, there are still codes of practice under the Act to ensure that hunting is carried out in a humane manner.³

The *Code of Practice for the Welfare of Animals in Hunting (revision no. 1)* is made under the Prevention of Cruelty to Animals Act. The guidelines include the following provisions which apply to recreational native bird hunting, as shown in Box 7.1 below.

¹ Sporting Shooters Association Australia (Victoria) *Submission 1,875*, p. 40.

² *Prevention of Cruelty to Animals 1986* (Vic). s(6)(1B)

³ Animal Welfare Victoria, *Code of Practice for the Welfare of Animals in Hunting (revision no. 1)*, 2023, <<https://agriculture.vic.gov.au/livestock-and-animals/animal-welfare-victoria/pocta-act-1986/victorian-codes-of-practice-for-animal-welfare/code-of-practice-for-the-welfare-of-animals-in-hunting-revision-no-1>> accessed 4 July 2023.

Box 7.1 Provisions applying to native bird hunting in the *Code of Practice for the Welfare of Animals in Hunting (revision no. 1)*

An animal must only be shot at when:

- it can be clearly seen and recognised
- it is within the effective range of the firearm, ammunition, or bow and arrow and the skills of the hunter
- a humane kill is likely.

Shooting an animal in the wild for the purpose of testing the proficiency of hunters, or hunting equipment, is not permitted. A hunter must shoot to cause a quick and painless death. Every animal which is shot must be immediately examined to ensure that it is dead. Every animal which is not dead on retrieval must be humanely destroyed immediately. If an animal is wounded and escapes, all reasonable attempts must be made to locate it so it can be killed quickly and humanely before hunting another animal.

Source: Animal Welfare Victoria, *Code of Practice for the Welfare of Animals in Hunting (revision no. 1)*, <<https://agriculture.vic.gov.au/livestock-and-animals/animal-welfare-victoria/pocta-act-1986/victorian-codes-of-practice-for-animal-welfare/code-of-practice-for-the-welfare-of-animals-in-hunting-revision-no-1>> accessed 4 July 2023.

There is a separate *Code of Practice for the Welfare of Animals on Private Game Reserves Licensed to Hunt Game Birds*.⁴ These codes establish obligations for keeping animals on private game reserves, including quail.⁵

The Game Management Authority also produces guidelines on how to avoid wounding and for the humane dispatch of downed birds. The *Draft waterfowl wounding reduction action plan 2022–2026* aims to promote strategies to reduce the wounding of birds. This is discussed in Section 7.1.2 below.

7.1.1 Rates of wounding

The Committee heard concerns regarding the number of birds wounded each year during the recreational native bird season. Hunting stakeholders told the Committee that care is taken to avoid wounding, but conceded that it is not feasible to avoid wounding due to the nature of bird hunting. Animal welfare groups argued that the rates of wounded birds in comparison to those killed outright were unacceptably high and constitute a serious animal welfare concern.

⁴ Ibid.

⁵ Ibid.

As part of the *Sustainable hunting action plan 2021–24*, the Victorian Government established a working group made up of stakeholders in the hunting and animal welfare sectors to produce a wounding reduction action plan.

The draft wounding reduction action plan states the exact number of ducks wounded each year in Victoria is unknown: ‘determining the extent of wounding is difficult and there is no perfect method for quantifying wounding rates.’⁶ However, it provides the following estimation:

In Australia, historic wounding rates have varied between different reporting methods, ranging from 6–40 per cent. Depending on the scale of the annual harvest, this can translate into tens of thousands of birds in a season.⁷

Dr Liz Walker, Chief Executive Officer of RSPCA Victoria, gave an estimate of how many ducks in total may have been wounded during the 2022 season. This was based on the estimated rates of wounding outlined in the draft wounding reduction action plan:

There is evidence to suggest wounding rates for ducks could be anywhere between 6 per cent and 40 per cent, meaning between 15,700 and 105,000 additional ducks were wounded and not killed outright in the 2022 season. The top range of this wounding rate, 105,000 birds, would be the equivalent of each seat filled at a soldout AFL game at the MCG.⁸

She added that the organisation estimates up to 57,000 quail are wounded each year.⁹

It should be noted that the draft wounding reduction action plan states that the data used to arrive at the 6% to 40% wounding range was gathered from studies carried out in the 70s and 80s.¹⁰ The plan acknowledges the age of the figures and that the rates may have changed with time. However, it adds that ‘wounding rates in the 20 to 40% range continue to appear in the contemporary literature elsewhere in the world’.¹¹

In its submission, Field & Game Australia stated that the majority of birds that are hit are struck by a fatal or near fatal shot. It also stated that small percentages of ducks receive minor wounds that would allow them to recover.¹²

Along with welfare groups, Field & Game Australia is a core member working in the Wounding Reduction Action Plan Committee. This consists of a cohort of invested stakeholders (Sporting Shooters Association Australia, Beretta Australia, RSPCA and others) which have established an agreed draft wounding reduction action plan.

⁶ Sporting Shooters Association Australia (Victoria) *Submission 1,875*, p. 42.

⁷ Ibid.

⁸ Dr Liz Walker, Chief Executive Officer, RSPCA Victoria, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 17.

⁹ Ibid.

¹⁰ A more recent study was carried out by the GMA in 2022 which showed that 3.4% of a sample of birds that were caught had shotgun pellets imbedded in them which suggests wounding from hunting. However, the report stated that this is not an indication of the total rate of wounding because a majority of wounded birds die and are not available to be sample; Game Management Authority, *Monitoring trends in waterfowl wounding 2022*, report prepared by Game Management Authority, Game Management Authority, 2022, p. 13.

¹¹ Sporting Shooters Association Australia (Victoria), *Submission 1,875*, p. 73.

¹² Field & Game Australia, *Submission 1,872*, p.21.

This was presented to the Minister for Agriculture in September 2022, and the newly created Minister for Outdoor Recreation in December 2022, for approval and implementation.

The draft wounding reduction action plan states that ‘estimates of wounding vary between studies, with hunter-reported studies generally recording lower rates and trained observer studies (considered more accurate) higher.’¹³

A key cause of wounding is because hunters use shotguns to hunt native birds. Shotguns shoot metal pellets which form a cluster once they leave the barrel. The cluster, known as a pattern, produces a larger lethal surface area to hit a bird than a traditional bullet. The cluster expands and becomes less dense with pellets the farther it goes, and the lethality of the shot diminishes with more range.¹⁴

Animal welfare concerns with the use of shotguns arise when only a small number of pellets strike a bird, constituting a non-lethal shot.¹⁵

In its submission, Field & Game Australia explained that barrels of the guns can be modified at the end, known as the choke area. A choke can ensure a tighter cluster and greater effective lethal range. The type of ammunition used also has a bearing.¹⁶

Field & Game Australia argued that hunters understand using weapons with the right choke and ammunition for the right circumstance is key to a safe and successful hunt.¹⁷

Dr Hugh Millar, Past President of the Victorian Division of the Australian Veterinary Association said he believed the nature of shotguns and their use of pellets can contribute to wounding:

But again, by the nature of a shotgun spray, if that is the right word, birds will get a sublethal impact, and that is the clear concern. We are not concerned about the fact that a bird could be killed with a shotgun cleanly and outright. If that was always the case, then that would be fine, but it is not.¹⁸

This view was also expressed by Glenys Oogjes, Chief Executive Officer of Animals Australia:

The way that recreational duck shooting is conducted – that is, its inherent nature – is that using shotguns which provide an arc of pellets to shoot at flying, moving targets; that is always going to mean that animals are going to be wounded.¹⁹

¹³ Sporting Shooters Association Australia (Victoria), *Submission 1,875*, p. 42.

¹⁴ Field & Game Australia, *Submission 1,872*, p. 23.

¹⁵ Ms Glenys Oogjes, Chief Executive Officer, Animals Australia, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 36.

¹⁶ Field & Game Australia, *Submission 1,872*, p. 23.

¹⁷ Ibid.

¹⁸ Dr Hugh Millar, Past President, The Australian Veterinary Association, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, p. 33.

¹⁹ Ms Glenys Oogjes, *Transcript of evidence*, p. 40.

Field & Game Australia argued that there are degrees of wounding and that birds may have minor wounds as well as life threatening wounds.²⁰ At a public hearing, Lucas Cooke, Chief Executive Officer, Field & Game Australia expanded on the organisation's view:

It is not quite as simple as the rhetoric that comes all the time of 'Every bird that's wounded suffers this long and painful and terrible death.' Well, they do not. Our contestation is that they do not. Some birds survive and thrive and go on to live perfectly fine. Yes, they have suffered some hardship, but they go on and continue to live and do not suffer ongoing hardship as a result of being wounded. That does not make them not a wounded bird, but it certainly does not make them a bird that suffered a long and slow and painful, terrible death in a wetland, as the other side of this argument often attests.²¹

Dr Walker from RSPCA Victoria accepted that some birds will survive their injuries, but noted there are welfare issues for those that do survive:

Wounded birds can suffer from the pain and disabling effects of injury, from sickness due to wound infection or from thirst or starvation. Injuries to the bill often lead to the inability to drink or eat. Wing fractures are common, and as with other injuries, the wounded bird is at heightened risk of being taken by a predator.²²

A similar view was expressed by Wildlife Victoria,²³ which operates a field veterinary service in the opening days of the duck season. Lisa Palma, Chief Executive Officer of Wildlife Victoria highlighted that dealing with wounded birds has a mental health impact on their staff.²⁴

Clearly there is some uncertainty on the number of ducks wounded each year, and the severity of their wounds is contested. Nevertheless, the Committee notes evidence from RSPCA Victoria that a wounding rate at the low end of the estimated range (6%) would still result in 15,700 birds injured in the 2022 season.²⁵

FINDING 13: There is conflicting and incomplete evidence on the wounding rate of bird due to recreational hunting. Estimates provided to the Committee ranged between 6% and 40% of ducks are wounded each year. A wounding rate at the lowest end of this range (6%) would have resulted in the wounding of 15,700 ducks during the 2022 season.

²⁰ Field & Game Australia, *Submission 1,872*, pp. 18–19.

²¹ Mr Lucas Cooke, Chief Executive Officer, Field and Game Australia, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 13.

²² Dr Liz Walker, *Transcript of evidence*, p. 17.

²³ Ms Lisa Palma, Chief Executive Officer and Executive Director, Wildlife Victoria, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 84.

²⁴ Ibid.

²⁵ Dr Liz Walker, *Transcript of evidence*, p. 17.

There are efforts underway to reduce the instance of wounding, primarily through education campaigns aimed at influencing attitudes in relation to wounding. The Game Management Authority's *Guidelines for the dispatch of downed ducks* recommends hunting practices that will minimise the chance of wounding. This includes:

- not shooting beyond a maximum shooting skills distance (25 to 30 m is the maximum distance for most hunters)
- isolating a single duck and not shooting into flocks
- hitting the duck in the front half of the body to target its vital organs
- having an effective retrieval strategy.²⁶

On its website, the Game Management Authority strongly encourages and promotes ethical hunting.²⁷ It describes an ethical hunter as a person who respects the game hunted, follows the law and behaves in a way that will satisfy what society expects of a hunter.²⁸ In relation to animal welfare issues, this means:

- concentrating on shot placement to ensure a lethal shot to a single bird
- following up wounded birds quickly so they can be dispatched quickly and humanely²⁹
- positioning yourself so that shot birds will fall into the open water.³⁰

The draft wounding reduction action explores systemic measures to ensure the above-mentioned wounding reduction practices are taken up by recreational native bird hunters. The proposed actions identified in the plan include:

- introducing codes of ethics for hunting organisations
- developing and promoting education materials to reduce wounding
- promoting improved hunter proficiency in techniques that reduce wounding, including the use of gundogs
- a once-off online theory game licence test for prospective and existing licence holders, which includes questions on wounding
- a once-off proficiency test for prospective hunters only. A minimum level of proficiency for this proposed test has not yet been set³¹

²⁶ Game Management Authority, *Guidelines for humane dispatch of downed ducks*, report prepared by Game Management Authority, Game Management Authority, Melbourne, 2019, p. 22.

²⁷ Game Management Authority, *An introduction to game hunting: Important information for first time game hunters*, report prepared by Game Management Authority, Game Management Authority, Melbourne, 2017, p. 8.

²⁸ Game Management Authority, *Ethical Hunting*, <<https://www.gma.vic.gov.au/hunting/duck/ethical-hunting>> accessed 5 July 2023.

²⁹ The Game Management Authority website notes a well-trained dog will increase the chances of retrieving a downed bird.

³⁰ Game Management Authority, *Ethical Hunting*.

³¹ Mr Darryl Snowden, Conservation and Pest Management Training Development Coordinator, Sporting Shooters Association of Australia (Victoria), public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 32.

- researching the current wounding rate, monitoring future wounding rates and revising the plan as necessary.³²

The Game Management Authority told the Committee that it had established an online portal for licencing, which can be expanded in the future to include online testing.³³

The draft plan highlights Denmark as a jurisdiction where wounding rates have decreased following efforts by hunters to improve their practices and capabilities.³⁴ It notes that the wounding ratio (the number of geese wounded for each goose bagged) dropped 'from 9.75 in 1992 to 1.99 in 2016, a reduction of 80 per cent'.³⁵

Simon Toop, Director of Strategy and Research at the Game Management Authority was confident that the rate of wounding could be reduced by implementing the draft wounding reduction action plan. This was based on similar wounding reduction projects he had previously worked on in Victoria, as well as the progress seen in Denmark:

We conducted, when I was with another department – the Department of Sustainability and Environment, I think, at that time – two small-scale projects, if you like, where we took people out into the field and assessed their wounding rates pre training and then post training. So that was through practical and theoretical training over the course of six days. We did that twice, once in 2008 and once in 2012, and combined we saw that the wounding rates went from 31 per cent pre training down to 6 per cent. So the evidence before us is that in Denmark in particular these activities have shown there can be a substantial reduction in wounding rates, and that was also reinforced by the work that we have done as well.³⁶

Clearly, there are a number of measures underway to reduce the rate of wounding of native birds during the season. The Committee is satisfied there would be reductions in the rate of wounding if the measures outlined in the draft wounding reduction action plan were implemented.

However, the Committee has concerns that even if these measures were realised, the rate of native birds wounded by recreational hunters would still likely be unacceptably high.

³² Sporting Shooters Association Australia (Victoria), *Submission 1,875*, pp. 13–22.

³³ Mr Graeme Ford, Chief Executive Officer, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 3.

³⁴ The Committee notes that birds hunted in Denmark are typically Geese, which are larger than the native birds hunted in Victoria and potentially easier to target with a fatal shot because of their size. Ms Mhairi Roberts, Policy and Advocacy Manager, RSPCA Victoria, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 22.

³⁵ Sporting Shooters Association Australia (Victoria), *Submission 1,875*, p. 43.

³⁶ Mr Simon Toop, Director, Strategy and Research, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 8.

Dr Walker from the RSPCA explained that in jurisdictions that had reduced the rate of wounding, including Denmark,³⁷ the rates were still estimated at approximately 10%:

And even in jurisdictions where there has been a sustained effort to reduce that, the levels that have been achieved still sit at around 10 per cent and fluctuate, but they do not go below. That level is still unacceptable, and for that reason the wounding remains unacceptable and this practice is unacceptable. That is the problem.³⁸

Mhairi Roberts from the RSPCA also explained that there were inconsistencies in comparing a wounding study with geese in Denmark to outcomes for native water birds in Victoria, Australia.³⁹

If wounding rates of 10% in Victoria were achieved thousands of birds would still be injured each year, even at the lowest extent of the range. This is based on the wounding rate noted in the draft wounding reduction action plan of between 6% and 40% (between 15,700 and 105,000 birds).⁴⁰

RSPCA Victoria highlighted the exceptional nature of accepting the wounding of ducks in recreational hunting. Dr Walker highlighted that the wounding of a single animal is a cruelty offence under the Prevention of Cruelty to Animals Act, however native bird hunting is specifically exempt from the provisions of the Act.⁴¹

This was also raised by Dr Millar from the Australian Veterinary Association:

I think it is fair to say that there is no other animal-related pursuit that I can think of where this is sanctioned. Indeed our strong legislation in the state would normally deem a lot of this activity unacceptable or introduce the cruelty aspect of the legislation, the *Prevention of Cruelty to Animals Act*.⁴²

The Committee also heard about the lack of mandatory knowledge and proficiency testing for hunters. These are both initiatives recommended by the Game Management Authority and included in the draft wounding reduction action plan, due to commence in 2024.

Although the Committee heard positive feedback on shotgun education program conducted by Field & Game Australia, there were concerns about low participation rates. At a public hearing, Simon Toop from the Game Management Authority stated:

They are low. I do not know the exact numbers now from recent programs they might have run, but last time I looked was maybe 12 months ago or something and it was only about 300 people. That is why we have recommended that proficiency testing be

³⁷ Dr Liz Walker, *Transcript of evidence*, p. 25.

³⁸ Ibid., p. 18.

³⁹ Ms Mhairi Roberts, *Transcript of evidence*.

⁴⁰ Numbers of birds given are based on the 2022 season; Dr Liz Walker, *Transcript of evidence*, p. 17.

⁴¹ Ibid., p. 16.

⁴² Dr Hugh Millar, *Transcript of evidence*, p. 25.

introduced to make sure that people do come along. If you want to have the privilege of hunting, you have got to show that you have got the minimum skills to go hunting.⁴³

The Committee accepts that wounding of birds is not the ultimate goal of hunters but that most wounded birds are unlikely to recover. The Committee believes that wounding thousands of birds each year as part of the recreational native bird hunting season—even at the lower estimated rate of 6%—is unacceptable and constitutes a serious animal welfare concern.

FINDING 14: Thousands of ducks would be wounded in Victoria each duck hunting season, even if measures outlined in the *Draft waterfowl wounding reduction action plan 2022–2026* were implemented. The Committee considers this ongoing level of wounding to be an unacceptable animal welfare outcome.

FINDING 15: Knowledge and proficiency testing, once-off or otherwise, for both prospective and existing game licence holders would help to reduce the rates of wounding during the recreational native bird hunting season.

7.1.2 Retrieval of wounded birds

Wildlife (Game) Regulations 2012, requires hunters to immediately recover downed birds after they are shot and recover the meat to ensure they are not wasted. Hunters are required to dispatch wounded birds they find straight away. The regulations require immediate recovery to ensure that a potentially wounded animal does not suffer unnecessarily.⁴⁴

As discussed previously, during the 2017 opening weekend of the season at Koorangie Mashies, there were reports that a large number of birds were shot and not retrieved.⁴⁵ Mr Toop from the Game Management Authority said that following this incident the GMA provided advice to the Government that the regulations should be changed so that hunters must immediately retrieve the birds they shoot.⁴⁶

While hunters are required to immediately retrieve birds, including wounded birds, the Committee heard concerns remain regarding the retrieval of birds. The concerns arise when a bird is difficult to retrieve, or a hunter chooses not to retrieve it immediately.

⁴³ Mr Simon Toop, *Transcript of evidence*, p. 32.

⁴⁴ Game Management Authority, *Recovering game birds and salvaging the meat*, <<https://www.gma.vic.gov.au/hunting/duck/hunting-methods/new-duck-hunting-regulations>> accessed 11 July 2023.

⁴⁵ Mr Simon Toop, *Transcript of evidence*, p. 26.

⁴⁶ Ibid.

In its submission, Field & Game Australia gave an overview of reasons why retrieval may be difficult. These include:

- Evasive ground behaviour: when a game bird is brought to or chooses to go to ground or water they will instinctively take cover, hiding away deep in grasses and reeds, making further detection extremely difficult, even with the assistance of a gun dog.
- Evasive airborne behaviour: wounded game birds may descend initially then take flight once again to further distance themselves from a threat.
- Terrain challenges: the terrain in which hunters operate is physically challenging, be it water-abundant wetlands where game ducks inhabit or dry flats where stubble quail exist. Visibility, accessibility, and other factors can make retrieval difficult to execute.⁴⁷

Lynn Trakell, Assistant Campaign Director for the Coalition Against Duck Shooting argued that hunters choose to leave wounded birds behind:

On other wetlands they shoot and bring down one bird, the bird is wounded and they just keep shooting. Also they have a habit of shooting pink-eared ducks. Pink-eared ducks are another game species that will be on the threatened list very shortly. They shoot them, and they are a small bird. They do not bother to take them home, so they leave them, whether they are dead or wounded, on the water and they just keep shooting them.⁴⁸

However, Fikret Alpozgen, Secretary of the Australian Cypriot Sport Shooter's Association said that in his experience, hunters immediately collect the birds they have shot:

I think that we always aim to hit every bird and kill it instantly, and we make every effort, in contradiction to what you have heard, to collect our game. So there is not a lot of opportunity to shoot the birds and kill the birds, and if we do, we are constantly after them, either walking after them or sending a gun dog after them – a trained gun dog. We are doing every effort we can to get that bird and retrieve it.⁴⁹

Mr Alpozgen described the circumstances where on one occasion he was unable to retrieve a bird:

I will be honest, somebody else has taken it, someone illegally has run after it, or it was picked up by another hunter – they have seen it and picked it up – or for some reason or another it has been a situation where we just could not find it.⁵⁰

⁴⁷ Field & Game Australia, *Submission 1,872*, p. 19.

⁴⁸ Ms Lynn Trakell, Assistant Director, Coalition Against Duck Shooting, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 53.

⁴⁹ Ms Fikret Alpozgen, Secretary, Australian Cypriot Sport Shooting Association, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 70.

⁵⁰ Ibid.

It is clear that there is some level of inattention to retrieving wounded birds by hunters. As discussed previously, rescuers have been attending the hunting season each year since 1986. One of their aims is to gather birds that have been wounded and not collected by hunters and seek veterinary care for the birds.

Wildlife Victoria, an organisation that runs a field veterinary service on the opening days of the duck season, gave evidence of this. The service provides care to wounded birds that are brought in by rescuers. Lisa Palma, Chief Executive Officer and Executive Director of the organisation said that they had provided care to 22 birds during the 2023 season opening. She explained that all of the birds were subsequently euthanised on welfare grounds. Their wounds included shotgun pellets and broken bones.⁵¹

Field & Game Australia stated that ‘almost all birds rescued by duck protestors are dead before they hit the ground’.⁵² Of those that do survive, those that are badly wounded enough to allow themselves to be caught by humans have their life expectancy in imminent doubt. They say ‘consequently, those birds that are caught by rescuers would most likely die anyway, and those that cannot be recovered are most likely not mortally wounded and will recover.’⁵³ Although when asked about this view, Dr Walker from RSPCA Victoria said it was ‘nonsense’.⁵⁴

The extent to which rescuers do not comply with regulations is discussed in Section 7.3.

Dr Millar from the Australian Veterinary Association held concerns about the capacity to manage instances of wounding and non-retrieval:

Wounding and non-retrieval is very much at the heart of our concerns. And if I have got your question right, that is the element that is very difficult, from our point of view, to manage away, under all the circumstances.⁵⁵

The Committee accepts that wounded birds may come down in difficult terrain such as long grass or reeds, making retrieval extremely challenging.⁵⁶ Given this, it shares the concerns it may be difficult to eliminate all instances of non-retrieval.

7.1.3 Humane and timely dispatch

The Game Management Authority produced *Guidelines for the dispatch of downed ducks* in 2019. The document sets out procedures for hunters to kill downed birds and discusses techniques that are not acceptable from an animal welfare perspective.⁵⁷

The guidelines describe a procedure whereby if it is safe to do so, hunters collecting a downed duck should shoot it again with a swatter load, if it is safe to do so. A swatter

⁵¹ Ms Lisa Palma, *Transcript of evidence*, pp. 79–80.

⁵² Field & Game Australia, *Submission 1,872*, p. 22.

⁵³ Ibid.

⁵⁴ Dr Liz Walker, *Transcript of evidence*, p. 21.

⁵⁵ Dr Hugh Millar, *Transcript of evidence*, p. 34.

⁵⁶ Field & Game Australia, *Submission 1,872*, p. 19.

⁵⁷ Game Management Authority, *Guidelines for humane dispatch of downed ducks*, p. 1.

load is a cartridge with small shot sizes that produce a dense pattern, which is more likely to kill a downed duck.⁵⁸

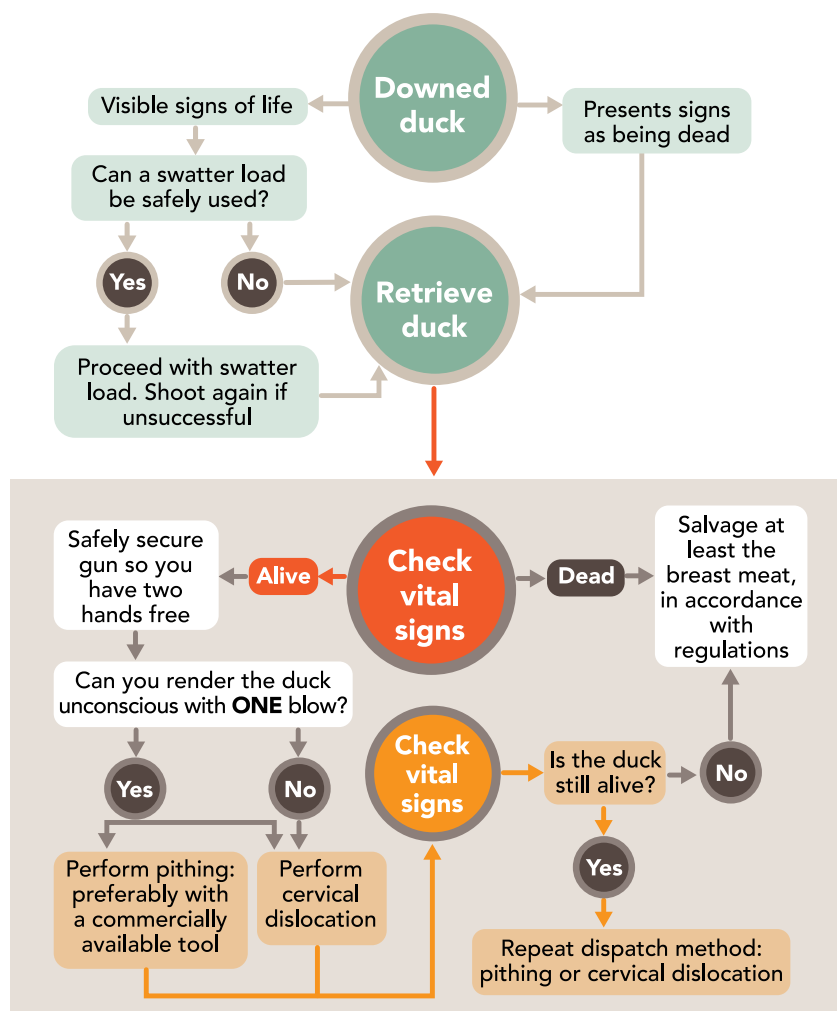
If it is not safe to shoot again, hunters should manually kill the duck. This involves using both hands to render the duck unconscious with a single blow of a blunt tool, then performing either:

- cervical dislocation, a method involving the separation of the skull from the neck
- pithing, the use of a tool to insert a spike into the duck's brain.⁵⁹

This process is summarised in Figure 7.1 below.

Figure 7.1 Game Management Authority guidelines on the humane dispatch of a downed duck

Steps to humanely dispatch a downed duck



Source: Game Management Authority, *Guidelines for the Dispatch of Downed Ducks*, 2019, pp. 3–4.

⁵⁸ Ibid., pp. 4–5.

⁵⁹ Ibid., pp. 9–15.

The guidelines also describe methods which are considered inhumane and are unacceptable. They include:

- drowning
- suffocation
- rib compression (thoracic compression)
- hitting a duck's head against an object.⁶⁰

The guidelines particularly single out windmilling as a method which is not recommended. Windmilling involves swinging a duck in a circle by its neck in order to cause dislocation of the neck from the head.⁶¹ The guidelines also state this is a common practice amongst hunters, however many cannot perform it in a way that consistently ensures immediate death.⁶²

Mr Toop described how in 2019 the Game Management Authority convened a working group to review windmilling. It received veterinary advice against the practice which stated that birds could remain conscious for up to 30 seconds after the technique was performed. As a result the Game Management Authority now advises against the practice as a dispatch method.⁶³

Although windmilling is no longer a recommended practice, the Committee received evidence—including videos—of hunters using it as a dispatch method.

Lynn Trakell from the Coalition Against Duck Shooting believed that windmilling was still a common practice amongst hunters:

There has been a lot said about windmilling, and we see that all the time. In fact most shooters try to kill wounded birds that way, by twirling them round and round and round, but the problem is that they are still flapping and moving around – many of them are – after they have done that. They hang them on their belts while they are still jerking and moving around, or they throw them in their punts while they are still jerking and moving around.⁶⁴

Mhairi Roberts, Policy Manager at RSPCA Victoria said that windmilling is a practice that is currently occurring, based on footage that was captured during the opening weekend of this season:

I think the amount of footage that was produced following opening weekend really demonstrates that there was quite a substantial amount that showed windmilling was still in practice, so I would say, based on that, it is still happening with some hunters. I think it is pretty evident that that still occurs.⁶⁵

⁶⁰ Ibid., p. 21.

⁶¹ Mr Darryl Snowden, *Transcript of evidence*, p. 38.

⁶² Authority, *Guidelines for humane dispatch of downed ducks*, p. 21.

⁶³ Mr Simon Toop, *Transcript of evidence*, pp. 15–16.

⁶⁴ Ms Lynn Trakell, *Transcript of evidence*, p. 50.

⁶⁵ Ms Mhairi Roberts, *Transcript of evidence*, p. 25.

Animals Australia showed the Committee a video which depicted windmilling as part of their opening statement to the Committee during their public hearing on 29 June 2023.

However, some stakeholders emphasised that the practice of windmilling is not illegal. Darryl Snowdon, Conservation and Pest Management and Training Development Coordinator at the Sporting Shooters Association of Australia (Victoria) argued this case:

It is not illegal. There is some sort of theory here that it is illegal. There is a guide to humane dispatch – it is a guide. I do not see where in the dispatch of ducks there is a legal requirement that says what method you have to use. That method has been used for hundreds of years. Since the shooting of birds has existed, that method of dispatch has been used.⁶⁶

This was confirmed by Simon Toop from the Game Management Authority:

There is nothing in law that tells you, you have to dispatch it in a particular way, and really there could be a whole range of other methods which might look unsightly but are actually effective and could be considered to be humane.⁶⁷

Dr Millar from the Australian Veterinary Association also noted the lack of legal requirements for the humane dispatch of birds. He believed there needed to be practical training on how to perform the task:

I guess the bit that concerns us most is that if birds are retrieved and they are injured. I see that in the code of practice it is very general, the ethical principles. The Victorian game authority are very general: they should be humanely dispatched. That is easily said, but I think that is an area where there should be, if hunters have to go through some assessment and training in identification of different waterfowl species and so on, then things like the humane killing of birds. It is a bit of a gruesome topic, but wringing a bird's neck is not actually to do it humanely. It is not actually something that is just easily done ...

... It does require some training. I am not saying it is a difficult thing to learn, but it needs to be learned.⁶⁸

Darryl Snowdon agreed, explaining to the Committee:

I have a problem with it, because people are not educated to do it properly ... The problem is people are not educated on how to do it correctly. Done correctly, it is a perfectly legitimate method of dispatch.⁶⁹

⁶⁶ Mr Darryl Snowdon, *Transcript of evidence*, p. 45.

⁶⁷ Mr Simon Toop, *Transcript of evidence*, pp. 15–16.

⁶⁸ Dr Hugh Millar, *Transcript of evidence*, p. 31.

⁶⁹ Mr Darryl Snowdon, *Transcript of evidence*, p. 42.

He believed it should not be made illegal because ‘Done by the right people in the right hands, it is an effective method’.⁷⁰ However, Mr Snowden also explained that there are practical difficulties involved with educating people how to perform the task without the use of real ducks.⁷¹

The Committee believes there is scope to better inform and educate hunters about humane dispatch methods. In a baseline test of hunter knowledge in 2020, only 13% of hunters answered a multiple-choice question on duck dispatch correctly. Simon Toop gave a breakdown of the results:

For that particular one, 13 per cent chose all three of the correct options out of the four put to them. Eighty per cent correctly chose swatter load, 50 per cent chose cervical dislocation and 40 per cent chose pithing. The issue was that 50 per cent chose breaking the duck’s neck, so windmilling it.⁷²

When asked by the Committee why the practice of windmilling was still persisting amongst hunters, Graeme Ford, Chief Executive Officer of the Game Management Authority replied:

I guess there has been a culture, if that has been a practice for a long, long time, and you know, our guide came out in 2019–20. We would place a great emphasis on education around that that practice should be phased out.⁷³

The Committee agrees with the Game Management Authority’s approach in not recommending the practice of windmilling.

It is also clear that many hunters are not aware the practice is no longer recommended or are not receptive to discontinuing the practice. The Game Management Authority should work with its stakeholders to better inform the hunting community that this practice is no longer acceptable and should not be performed.

FINDING 16: Although windmilling as a dispatch method is not recommended by the Game Management Authority, there is evidence of its continued use amongst native bird hunters.

7.2 Hunter compliance with bag limits and season start times

The Committee heard some concerns that hunters were not complying with regulations on bag limits and season start times. As discussed in Chapter 3, the bag limit for duck hunters each day is typically 10 birds. However, this can change from season to season.

⁷⁰ Ibid., p. 38.

⁷¹ Ibid.

⁷² Mr Simon Toop, *Transcript of evidence*, p. 19.

⁷³ Mr Graeme Ford, *Transcript of evidence*, p. 16.

Similarly, season times may change from year to year. These regulations are put in place to ensure that the number of birds taken each season can be controlled in a way that does not significantly impact overall populations.

For the 2023 season, the bag limit was four ducks and hunting was permitted from 8.00 am until 30 minutes after sunset each day.⁷⁴

7.2.1 Bag limits

As discussed in Chapter 6, the incident at Koorangie Marshes in 2017 where hunters left a number of deceased birds behind or buried them in pits led to the commissioning of the Pegasus report. The Committee also received evidence of another incident where a large number of deceased birds were found by rescuers at Box Flat in 2013.⁷⁵

Paul Haw said he was previously a hunter, but no longer takes part because he believes that hunters do not keep to bag limits:

I was a keen shooter until recent years, and that completely ended after the Box Flat massacre, when 2000 birds floated ashore. You have got to realise a lot of duck shooters, when they shoot their five birds, just want to keep on shooting. They do not pick them up. That was the end of duck shooting for me.⁷⁶

Dave Evans, an animal rescuer who gave evidence at a public hearing on his experiences, spoke of discovering downed birds that were buried in pits:

I take teams after opening to look for wounded and dead. We have crew throughout the state who essentially scout for us to see where the shooters are and where they are shooting. Generally, beforehand we already know where the birds are because we have scouted before the season as well. We get people throughout the state letting us know what is going on in other places – to pick up dead and wounded. [In 2017], we had a team of seven going out through that wetland that brought in 430 birds. That was after the 1489 birds – 430 birds that were shot and left. So essentially this is not a food-getting exercise at all; that proves it. And what proves it beyond a doubt is that 370 birds were found in two pits by a friend of mine, Luke, and me – whole birds that were not harvested or whatever that were just essentially shot and buried in order to hide the crime.⁷⁷

Lisa Palma from Wildlife Victoria gave an example to the Committee about what she perceived to be a recent example of a hunter exceeding a bag limit. She described a non-game endangered species whose meat was harvested after it was dispatched and

⁷⁴ Game Management Authority, *2023 duck hunting season arrangements*, 2023, <<https://www.gma.vic.gov.au/media-releases/2023/2023-duck-hunting-season-arrangements>> accessed 16 May 2023.

⁷⁵ Mr Dave Evans, public hearing, Sale, 26 June 2023, *Transcript of evidence*, p. 48.

⁷⁶ Mr Paul Haw, public hearing, 29 June 2023, *Transcript of evidence*, p. 49.

⁷⁷ Mr Dave Evans, *Transcript of evidence*, p. 45.

left in a tree hollow.⁷⁸ The Committee was not provided substantial evidence of the intention for leaving the bird behind, nor could it confirm that the bird was left behind because a hunter had exceeded their bag limit.

Gary Howard OAM, caretaker of the Heart Morass project and himself a hunter, believed that there are circumstances where shooting over a bag limit was unpreventable:

I have seen it done – unfortunately take two, three, four birds with one shot.

...

it is not something that you can prevent. The hunter, if they have done the right thing, has targeted a particular bird in a mob, but you have a certain amount of spread in the shot – particularly with teal, they tend to be at times very thick – and unfortunately two or three or four birds can fall with one shot.⁷⁹ Other witnesses had a different view about shooter's adherence to bag limits.

Fikret Alpozgen, Secretary of the Australian Cypriot Sport Shooting Association said:

Licensed hunters adhere to strict bag limits – I know I do – species restrictions and ethical hunting practices. These guidelines are in place to prevent overexploitation, safeguard species diversity and maintain a thriving ecosystem.⁸⁰

Paul Stevens, Director of Compliance and Intelligence at the Game Management Authority said that in the past two years over 99% of the hunters inspected complied with the legislated bag limit.⁸¹

The evidence provided to the Committee is not substantial enough to make a determination either on whether non-compliance through exceeding bag limits is a widespread issue. However, as discussed in Chapter 6 the Committee notes the efforts that have been made by the Game Management Authority to ensure hunter compliance with education following the Pegasus Report.

However, the Committee is concerned about how bag limit breaches may be unpreventable due to the scatter of shotgun pellets. This is compounded by the environmental conditions at native bird hunting sites. This can contribute to the pressure on native bird populations and may lead to wounded or downed ducks left behind by hunters who do not bag birds.

⁷⁸ Ms Lisa Palma, *Transcript of evidence*, p. 81.

⁷⁹ Mr Gary Howard OAM, public hearing, Sale, 26 June 2023, *Transcript of evidence*, p. 61.

⁸⁰ Ms Fikret Alpozgen, *Transcript of evidence*, p. 64.

⁸¹ Mr Paul Stevens, Director, Compliance and Intelligence, Game Management Authority, public hearing, Melbourne, 3 July 2023, *Transcript of evidence*, p. 14.

7.2.2 Hunting start times

Hunters beginning shooting before the regulated starting time was another issue raised by stakeholders.

George Buchhorn, a former manager of compliance at the Game Management Authority gave evidence about how season start times were breached at Koorangie Marshes in 2017:

The shooting unfortunately started early, at about 7:07 am; the correct start time was 7:20 am. The lake was still shrouded in darkness, but there were lots and lots of shots. We were unable to police or enforce the legislation. It was too dark, and there were too many offenders.⁸²

Lisa Palma from Wildlife Victoria also alleged that season starting times had been breached more recently. She told the Committee that this year she heard shooting begin early during this year's season: between 7:30 and 7:40 am.⁸³

Lynn Trackell from the Coalition Against Duck Shooting also alleged shooting took place before the allotted start time during this year's season.⁸⁴

The Committee heard that it is difficult to enforce compliance with season shooting times. Graeme Ford from the Game Management Authority explained the difficulties involved in identifying individuals who shoot early, as well as getting the evidence needed to pursue the matter:

But just simply with the practicalities even if we were responding, for most early shootings it is minutes rather than hours prior to the legal start time. Any distance you travel would mean that time would pass. Shooting generally occurs in regional areas and rural areas where other forms of shooting occur. So again, without eyewitness testimony I think it would be a very difficult offence to prove.⁸⁵

He noted that only one person was charged this year with beginning shooting early.⁸⁶

7.3 Rescuer compliance with legal requirements

The Committee also received evidence regarding breaches of regulations by people associated with the rescuer movement. This included entering the water to gather wounded birds and breaching requirements around proximity to hunters.

The Committee is concerned about allegations of harassment when hunters were otherwise acting in accordance with all legal requirements.

⁸² Mr George Buchhorn, Former Manager of Compliance, Game Management Authority, public hearing, Melbourne, 29 June 2023, *Transcript of evidence*, pp. 76–77.

⁸³ Ms Lisa Palma, *Transcript of evidence*, p. 85.

⁸⁴ Ms Lynn Trakell, *Transcript of evidence*, p. 50.

⁸⁵ Mr Graeme Ford, *Transcript of evidence*, p. 33.

⁸⁶ Ibid.

The regulations for public safety on wetlands are published on the Game Management Authority's website. They state:

- It is an offence for an unauthorised person to remain in a specified hunting area,⁸⁷ between:
 - from midnight of the first day of duck season until 10 a.m. of that day
 - from 2 hours before sunset of each day of duck season (including the first day) until 10 a.m. of the following day
 - from 2 hours before sunset of the last day of the duck season until 30 minutes after sunset of that day (Note: These restrictions only apply to the waterbody and extend out to 25 metres from the water's edge.)
- it is an offence for an unauthorised person to approach within 10 metres of a person who is carrying a firearm or actively hunting ducks in specified hunting areas during the duck season.
- it is an offence for anyone to hinder, harass, interfere with, or obstruct a person engaged in hunting at any location and time.⁸⁸

If persons are found in breach of these regulations, an Authorised Officer or a Police Officer can issue a banning notice. This prohibits an alleged offender from entering or remaining in a specified hunting area for a period specified in the notice, not beyond the length of the duck season.⁸⁹

A court may make exclusion order on application by an authorised officer or police officer. This bans a person from entering any or all specified hunting areas in Victoria for a period of up to 12 months.⁹⁰

The Game Management Authority notes on its website that these provisions are not intended to prevent peaceful protest in a safe manner.⁹¹

Sporting Shooters Association Australia (Victoria) stated it recognised the right for rescuers to protest. However, it believed the right 'must be balanced with the citizens' rights to participate in lawful recreational activities.'⁹²

In its submission the association stated 'Recreational duck hunting stands out in Victoria as an activity where hunters' rights are often violated in a systematic, organised manner, and the state rarely intervenes'.⁹³

⁸⁷ An unauthorised person is someone who does not hold a valid game licence and firearm licence. Specified hunting areas are all State Game Reserves and hunting areas listed in Schedule 8 of the Wildlife (Game) Regulations 2012 Game Management Authority, *Public safety on wetlands*, <<https://www.gma.vic.gov.au/hunting/duck/hunting-methods/public-safety-on-wetlands>> accessed 11 July 2023.

⁸⁸ Ibid.

⁸⁹ *Wildlife Act 1975* (Vic.), s 58G.

⁹⁰ Ibid., s 58M.

⁹¹ Game Management Authority, *Public safety on wetlands*.

⁹² Sporting Shooters Association Australia (Victoria), *Submission 1,875*, p. 24.

⁹³ Ibid., p. 25.

David Laird, Hunting Development Manager at the association expanded on this point at a public hearing:

If protestors want to stand on the edge of the wetlands or they want to come into town and stand on the steps of Parliament, more power to them. They are entitled to their view, they are entitled to express that and they are entitled to protest. But we do not believe that they have a right to protest where they are actually hindering hunters going about their activities. Perhaps the Melbourne Cup might be a good example, a bit of an analogy, as a lot of people feel very strongly about that. There are protests about the Melbourne Cup. That is fine, but they are not allowed on the track. If they did, they would be arrested and they would be dragged off. So they can stand outside and they can express their views, but they cannot actually hinder those activities. And we see it should be exactly the same for hunters in a wetland going about their lawful activities; they should not be hindered by protestors.⁹⁴

7.3.1 Rescuer practices

The Committee was informed by rescuers that their purpose was to attempt to:

- keep birds away from hunters at wetlands
- gather wounded birds that have not been collected by hunters so they can receive veterinary care.

In doing so, some entered specified hunting areas, came within 10 metres of hunters with firearms and hindered or harassed hunters, all in breach of regulations.

In describing the tactics of rescuers who intend to keep birds away from hunters, Laurie Levy, Campaign Director at the Coalition Against Duck Shooting explained:

So when rescuers are out there in bright colours, the birds can see them and they will keep away. When you are carrying flags that are flying up 50 metres, the birds can see the flags and they will keep away from the guns.⁹⁵

David Laird, from Sporting Shooters Association Australia (Victoria) said that the actions of rescuers in scaring away birds impeded the efforts of hunters to stalk birds and bring them within an effective distance to reduce wounding:

We want to reduce wounding, and we have got protestors going and disturbing birds and chasing them away. We are trying to encourage hunters to change behaviours and use decoys to bring animals into that effective distance, and we have got protestors who are potentially impacting on that. So yes, as I say, outside the wetlands I am more than happy for them protest there and express their views but not get in the way of hunters going about their lawful activities.⁹⁶

⁹⁴ Mr David Laird, Hunting Development Manager, Sporting Shooters Association Australia (Victoria), public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 44.

⁹⁵ Laurie Levy, Campaign Director, Coalition Against Duck Shooting, public hearing, Melbourne, 16 June 2023, *Transcript of evidence*, p. 54.

⁹⁶ Mr David Laird, *Transcript of evidence*, p. 44.

In his submission, Dr Brian Hiller stated that rescuers taking downed birds actually led to further birds being shot, as hunters were unable to dispatch the bird and add to their daily bag:

First, “rescuers” are not “saving” ducks, they are stealing legally harvested locally sourced organic food from hunters (literally taking food off their table) and thereby forcing them to shoot more ducks in order to reach their daily bag. Letting hunters take their bag limit quickly and leave the marsh would actually reduce the total number shot. Those same “rescuers” regularly keep mortally wounded ducks alive for hours to days, prolonging the individual’s suffering. Hunters are required to dispatch downed birds as quickly as possible and add them to their bag limit. Allowing “rescuers” to continue to engage in this process goes directly counter to the hunter’s code of ethics and the ongoing efforts to reduce wounding by hunters.⁹⁷

The Committee heard that rescuers have broken regulations by entering a specified hunting area or coming within 10 metres from hunters who are armed. Laurie Levy explained to the Committee he was aware that practices involving entering wetlands to rescue birds are illegal:

Our rescuers go into the water with the shooters, so we know what is going on out there. The reason we go out onto the wetlands – and we go out before 10 o’clock, the prescribed time, and yes, we are doing it illegally, Beverley – is because birds are being shot from the opening of the duck-shooting season, and our rescuers need to be there to help those birds.⁹⁸

There is no point standing onshore holding a placard. We are not protesters. We are rescuers. We have modelled the Coalition Against Duck Shooting on the Red Cross. The Red Cross go into a war zone to help the innocent victims, and that is exactly what we do.⁹⁹

Field & Game Australia argued in its submission that retrieval of birds by rescuers contributes to poor animal welfare outcomes because they are preventing hunters from dispatching them:

Hunters are required to dispatch birds as quickly as possible to alleviate any suffering as legislation dictates. This should also be true of protestors. When protestors ‘steal’ birds, often severely wounded, from hunters, and choose not to dispatch them but instead to parade them before press, and/or be photographed and filmed for social media purposes and the like, they are in fact contributing to the pain and suffering of that animal. This behaviour is cruel and illegal, and protestors must be charged in accordance with Victorian and associated laws.¹⁰⁰

⁹⁷ Dr Brian Hiller, *Submission 1,064*, p. 3.

⁹⁸ Mr Laurie Levy, *Transcript of evidence*, p. 50.

⁹⁹ Ibid.

¹⁰⁰ Field & Game Australia, *Submission 1,872*, p. 17.

When asked if he'd ever seen a protestor 'steal a bird', Darryl Snowdon from Sporting Shooters Association Australia (Victoria) said yes, and added the practice was illegal.¹⁰¹ He explained 'they are certainly breaking the law, and many have been prosecuted in the past. They are there for one reason, with canoes: to outrun the hunters or the hunter's dog to get those birds.'¹⁰² Mr Snowdon believed the practice of entering the water is dangerous, and that in 2011 a protestor at Lake Buloke was injured.¹⁰³

Laurie Levy explained to the Committee that his group's tactics had changed following the shooting injury of a rescuer:

In the early days we raced duck shooters for wounded birds when they came down. We could move a lot faster than the shooters because we just wore a pair of running shorts and a T-shirt and they were bogged down in waders and guns and everything else. But we do not do that now, because one of our rescuers, in 2009 – and this was not connected with racing a shooter for wounded birds – was shot in the face. She had nine pellets lodged in her face. She was rushed down to the Horsham Base Hospital and – when I first heard the news, I know the damage a shotgun can do to somebody's face – she was just so lucky.¹⁰⁴

When asked if rescuers are now advised to ask shooters to retrieve birds before attempting retrieval themselves, Mr Levy replied yes.¹⁰⁵

The Committee agrees that it is dangerous for rescuers to be in specified hunting areas and close proximity of hunters during season open times. The animal welfare concerns of birds do not eclipse the need to ensure public safety in potentially dangerous situations. The Committee notes that the Game Management Authority rightly applies enforcement measures to rescuers who break the law as well as hunters.

FINDING 17: Rescuers put themselves and others in danger if they break the law to enter specified hunting areas during the recreational native bird hunting season.

Rescuers are banned from entering the water during the season, however, persons with a valid game licence are entitled to enter hunting areas.¹⁰⁶ Sporting Shooters Association Australia explained that rescuers had been circumventing regulations preventing them from entering hunting areas by obtaining hunting licences:

During the hunting season, anti-duck hunting protesters are ostensibly prohibited from accessing or staying on public hunting wetlands before 10 am or two hours before

¹⁰¹ Mr Darryl Snowdon, *Transcript of evidence*, p. 39.

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Mr Laurie Levy, *Transcript of evidence*, p. 60.

¹⁰⁵ Ibid., p. 61.

¹⁰⁶ Mr Graeme Ford, *Transcript of evidence*, p. 32.

sunset. However, this law is routinely disregarded by activists exploiting a loophole that allows access if they hold a current game hunting and shooting licence.¹⁰⁷

The Committee heard evidence from Manfred Zabinskas OAM, the owner of a wildlife refuge who spoke about his experiences as a rescuer. He told the Committee that he and his partner Helen Round had obtained game hunting licences ‘to go out and rescue birds legally so that we can render assistance to them’.¹⁰⁸

The Committee asked Mr Zabinskas whether this complies with the powers of the Game Management Authority to issue licences to ‘hunt, take or destroy game’. He replied that he had contact with Game Management Authority officers regarding the matter and engaged a lawyer to represent his interests. He also noted that his and Ms Round’s licences were renewed.

Victoria Police noted that it had cancelled some shooters licenses based on the holders of those licenses not having a genuine reason as outlined by the relevant legislation and had the licenses under false pretences. The decision by Victoria Police was subsequently overturned by VCAT.

**Adopted by the Select Committee on Victoria’s Recreational Native Bird
Hunting Arrangements
Parliament of Victoria, East Melbourne
21 August 2023**

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¹⁰⁷ Sporting Shooters Association Australia (Victoria), *Submission 1,875*, p. 25.

¹⁰⁸ Ms Manfred Zabinskas OAM, public hearing, Sale, 26 June 2023, *Transcript of evidence*, p. 55.

Appendix A

About the Inquiry

A.1 Submissions processing summary

The Committee called for submissions in May 2023 through the Victorian Parliament's news service, its website, and other social media sites.

The Committee also identified and wrote to various key stakeholders requesting they make a submission.

The Committee received 10,402 submissions to the inquiry. The majority of these were received from the Committee's website, whilst the remainder were emailed direct-to-inbox or received by post.

For this inquiry, the Committee agreed to grant most requests for name withheld submissions.

The Committee also received a small number of submissions from children under 18 years. Consistent with broader committee practice, a child's surname is not published online where they have requested their submission is made public.

The Committee received a number of proforma submissions which were processed as a single submission with multiple authors. This is consistent with existing committee practice. Submissions were only considered as proforma where:

- the content was identical
- it was submitted separately by four or more people.

Some submissions were mostly the same in substance as other existing and proforma submissions but had various different changes or additions. These were processed individually and not as additional proforma submission authors.

A small number of submission received were not accepted by the committee as they did not address the inquiry's terms of reference or their identity was not able to be varied.

All public and name withheld submissions are available online at <https://new.parliament.vic.gov.au/get-involved/inquiries/nativebirdhunting/submissions>.

A list of names of public submitters is provided in Appendix B.

A.2 Site visits

The Committee conducted site visits as follows:

- 26 April 2023: Lake Connewarre wetlands and game reserve
- 26 June 2023: Heart Morass wetlands and game reserve.

The Committee attended Lake Connewarre wetlands on first day of season opening for native bird hunting. The Committee was escorted by representatives of the Game Management Authority and met with hunters and rescuers on site to discuss their views.

The Committee also attended the Connewarre Wetland Centre for a discussion with representatives from Field & Game Australia about local conservation programs.

The Committee toured Heart Morass wetlands ahead of its regional public hearing in Sale. Members were hosted by Gary Howard OAM, caretaker of Heart Morass and received a presentation on conservation programs that have occurred over the site.

A.3 Public hearings

Friday, 26 May 2023

Davui Room, 55 Saint Andrews Place, East Melbourne, 3002

Name	Title	Organisation
Professor Richard Kingsford	-	-
Professor Marcel Klaassen	-	-
Jencie McRobert	Associate	RMCG
Heather Bailey	Senior Manager	BDO EconSearch
Rod Campbell	Research Director	The Australia Institute
Liz Morison	Researcher	The Australia Institute
Dr Brian Hiller	-	-
Dr Holly Sitters	-	-

Friday, 16 June 2023

Legislative Council Committee Room, Parliament House, Spring Street, East Melbourne, 3002

Name	Title	Organisation
Lucas Cooke	Chief Executive Officer	Field and Game Australia
Danny Ryan	Chairman	Field and Game Australia
Dr Michael O'Kane	Anthropologist	-
Dr Liz Walker	Chief Executive Officer	RSPCA Victoria

Name	Title	Organisation
Rebecca Cook	Head of Prevention	RSPCA Victoria
Mhairi Roberts	Policy and Advocacy Manager	RSPCA Victoria
David Laird	Hunting Development Manager	Sporting Shooters Association Australia (Victoria)
Daryl Snowdon	CPM and Training Development Co-ordinator	Sporting Shooters Association Australia (Victoria)
Barry Howlett	Communications Manager	Sporting Shooters Association Australia (Victoria)
Laurie Levy	Campaign Director	Coalition Against Duck Shooting
Lynn Trakell	Assistant Director	Coalition Against Duck Shooting
Fikret Alpozgen	Secretary	Australian Cypriot Sport Shooting Association
Huseyin Alpozgen	President	Australian Cypriot Sport Shooting Association
Lisa Palma	Chief Executive Officer and Executive Director	Wildlife Victoria
Meg Butler	Head of External Relations	Wildlife Victoria

Wednesday, 21 June 2023

Legislative Council Committee Room, Parliament House, Spring Street, East Melbourne, 3002

Name	Title	Organisation
Dr Dave Ramsey	Principal Scientist, Program Leader Wildlife Management	Arthur Rylah Institute for Environmental Research
Peter Menkhorst	Program leader, Waterbirds and Wetlands	Arthur Rylah Institute for Environmental Research

Monday, 26 June 2023

Wellington Room, Port of Sale, 70 Foster Street, Sale, 3850

Name	Title	Organisation
Cr Ian Bye	Mayor	Wellington Shire Council
Andrew Pomeroy	General Manager, Development	Wellington Shire Council
David Harper	Manager, Natural Environment and Parks	Wellington Shire Council
Kirsten Power	Business Facilitation and Leveraging Officer	Wellington Shire Council
Sean Dooley	National Public Affairs Manager	BirdLife Australia
Trevor Williams	Victorian District President	Mining and Energy Union
Mark Richards	Secretary	Mining and Energy Union
Tania Begg	-	-

Name	Title	Organisation
Dave Evans	-	-
Helen Round	-	-
Manfred Zabinskas OAM	-	-
Gary Howard OAM	-	-
Glenda Anderson	-	-
John Byers	-	-

Thursday, 29 June 2023

Legislative Council Committee Room, Parliament House, Spring Street, East Melbourne, 3002

Name	Title	Organisation
Rodney Carter	Chief Executive Officer	Dja Dja Wurrung Group
Troy Gray	State Secretary	Electrical Trades Union
Michael Watson	Political Officer	Electrical Trades Union
Dr Hugh Millar	Past President	Australian Veterinary Association
Glenys Oogjes	Chief Executive Officer	Animals Australia
Louise Bonomi	Director of Development	Animals Australia
Jo Wilkinson	Consultant	Animals Australia
Gary Murray	-	Victorian Traditional Owner Land Justice Group
Paul Haw	-	-
Elizabeth McCann	Campaign Director	Regional Victorians Opposed to Duck Shooting
Kerrie Allen	Spokesperson	Regional Victorians Opposed to Duck Shooting
Sue Williams	Project Officer	Regional Victorians Opposed to Duck Shooting
George Buchhorn	-	-

Monday, 3 July 2023

Legislative Council Committee Room, Parliament House, Spring Street, East Melbourne, 3002

Name	Title	Organisation
Corrie Goodwin	Acting Chairperson	Game Management Authority
Graeme Ford	Chief Executive	Game Management Authority
Paul Stevens	Director, Compliance and Intelligence	Game Management Authority
Simon Toop	Director, Strategy and Research	Game Management Authority

Name	Title	Organisation
Beth Jones	Deputy Secretary, Regional and Suburban Development	Department of Jobs, Skills, Industry and Regions
Rachaele May	Executive Director, Emergency Management	Department of Jobs, Skills Industry and Regions
Mark Sandiford	Director, Outdoor Recreation	Department of Jobs, Skills Industry and Regions
Carolyn Jackson	Deputy Secretary, Environment, Climate Action and First Peoples	Department of Environment, Energy and Climate Action
James Todd	Chief Biodiversity Officer	Department of Environment, Energy and Climate Action
Sarah-Jane McCormack	Acting Deputy Secretary, Agriculture Victoria	Department of Environment, Energy and Climate Action
Trevor Pisciotta	Executive Director	Department of Environment, Energy and Climate Action
Superintendent Sussan Thomas	-	Victoria Police
Inspector John Cahill	-	Victoria Police

Appendix B

Submissions

Submitter names are listed here alphabetically and not by submission number.
Name withheld and confidential submissions are not included in this list.

Aaron Caruso	Adam Leeworthy	Adrienne Murrowood
Aaron Cheep	Adam Lovell	Adrienne White
Aaron Closs	Adam Maltman	Aga Vitsos
Aaron Douglas	Adam Mark	Agim Zacellari
Aaron Edmondson	Adam McCrickard	Ahlan Dimachki
Aaron Fagan	Adam O'Byrne	Ahmad Halwani
Aaron Fraser	Adam Richardson	Aidan Marshall
Aaron King	Adam Riley	Aidan Spitaleri
Aaron Lendaro	Adam Stephenson	Aidan Steers
Aaron Missen	Adam van der Lugt	Aidan Thompson
Aaron Mudie	Adam Villante	Aiden Dent
Aaron Robert	Adam Zerella	Aileen Thompson
Aaron Speranza	Adel Mostafa	Ailsa Denton
Aaron Vella	Adele Albanese	Aimee Weir
Aaron Young	Adele Bartram	Ainsley Power Walters
Aayden Thomas	Adem Dogan	Aisha Quattrocchi
Abby Blundell	Aditi Basu	Aisha Slater
Abby Gee	Adrian Baldasso	AJ Penrose
Abdi Hassan	Adrian Barbara	Ajay Chendira Nanaiah
Abdullah Azhar	Adrian Bressan	Akie Leimonitis
Abdullah Veli	Adrian Devey	Akvan Gajanayake
Abigail Harrison	Adrian Dubar	Alaa Hassan
Abigail Hartojo	Adrian Elderhurst	Alan Baxter
Abigail Ryburn	Adrian Galimberti	Alan Bowman
Abigail Watkins	Adrian Gatt	Alan Cocks
Abraham Alonzo Guiyab	Adrian Giannone	Alan Crawford
Achilleas Charalambous	Adrian Gurney	Alan Edwards
Adalita Srsen	Adrian Hotchin	Alan Frankham
Adam Backman	Adrian Hunter	Alan Grant
Adam Busana	Adrian Leenaerts	Alan Gray
Adam Butler	Adrian Norris	Alan Green
Adam Cardilini	Adrian Orchard	Alan Hewett & Joan Jones
Adam Carson	Adrian Pickin	Alan Holmberg
Adam Cooper	Adrian Poloniato	Alan Lappin
Adam Crabtree	Adrian Trotter	Alan Nicolea
Adam Demmert	Adrian Wright	Alan Palmer
Adam Elisha	Adriano Colarusso	Alan Sanders
Adam Elliot	Adriano Serapiglia	Alan Stannard
Adam Hageman	Adrienne Davies	Alan Stevens

Alan Taylor	Aleysa Troup	Allison Falzon
Alan Walsh	Alfred Cachia	Allister Davey
Alan Walton	Alfred Gemayel	Allister Powell
Alana Bacon	Alfred Vella	Ally Houlli
Alana Burton	Ali Elmir	Alwyn Henderson
alanah jackson	Ali Fulcher	Alyce Brasser
Alannah Dore	Ali Halwani	Alyce Lynas
Alasdair Moodie	Ali Saied	Alycia Marotta
Alastair Butt	Alice Doherty	Alysha Bond
Albert Ortega	Alice Gordon	Alyson Gale
Albert Wright	Alice Knowles	Alyx Nichols
Aldo Tenaglia	Alice Savage	Amanda Andrews
Aldrin Leong	Alice Wilkinson	Amanda Borg
Alec Hand	Alicia Olive	Amanda Emery
Alec Robinson	Alicia Privitera	Amanda Filshie
Aleisha Hall	Alicia Spence	Amanda Kakoschke
Aleksandar Jakovljevic	Alina Spektor	Amanda La Praik
Alex Babauskis	Alisdair Eddie	Amanda Maybury
Alex Barrie	Alisha Tummons	Amanda McLeod
Alex Collins	Alison Brennan	Amanda Norton
Alex D'Adam	Alison Copley	Amanda Stone
Alex Hill	Alison Dean	Amanda Whittington
Alex Hodgson	Alison Fisher	Amba Begg
Alex Jevric	Alison Guesdon	Amber Anderson
Alex Jolly	Alison Hamilton	Amber Engler
Alex Leszczynski	Alison Joseph	Amber Kelly
Alex McInnes	Alison Major	Amber Ross
Alex Pantano	Alison Mitchell	Amber Todd
Alex Proft	Alison Moore	Amelia Crowe
Alex Rankin	Alison Skene	Amelia Morrow
Alex Siderakis	Alison Street	Amelia Natoli
Alex Vardangea	Alison Turner	Amellia Formby
Alex Vickery-Howe	Alison Warren	Amie Wilkinson
Alex Wilder	Alison Watson	Amreet Kaur
Alex Wilson	Alison Wirtz	Amruta Nargundkar
Alexa Wall	Alison Yates	Amy Bolwell
Alexander Delgrosso	Alistair Legione	Amy Hiller
Alexander Hall	Alister Air	Amy Johannsohn
Alexander Papadakis	Alizee Bourgault	Amy Johnson
Alexander Stefanutti	Allan Gillett	Amy Kidd
Alexander Tsotsovis	Allan Hawking	Amy Lorna Jacka
Alexandra Brooks	Allan Kilpatrick	Amy Reid
Alexandra Delager	Allan Leighton	Amy Shelly
Alexandra Douros	Allan McGain	Amy Sutherland
Alexandra Pavlova	Allan Meers	Amy Tran
Alexandra Pellegrino	Allan Rogerson	Ana-Paula Martins-Fernandes
Alexandra Sarandis	Allan Snashall	Anastasia Dowie
Alexandra Seddon	Allan Straub	Anastasia Zimsen
Alexandria Huerta	Allan Wilkinson	Anchana Jenkins
Alexis Smith	Allison Easden	Andi Jones

Andie Austin	Andrew Hedge	Andrew Winn
Andrea Cusack	Andrew Hill	Andrew Winter-Irving
Andrea de Lacy	Andrew Hine	Andrew Woodyard
Andrea Dennett	Andrew Holland	Andrew Wuttke
Andrea Lindsay	Andrew Hong	Andy Serkowski
Andrea Lloyd	Andrew Hughes	Anette Johannessen
Andrea McCarthy	Andrew Jeffery	Angel Shrestha
Andrea McKay	Andrew Jorgensen	Angela Anderson
Andrea Rohr	Andrew Kee	Angela Angel
Andrea Savage	Andrew Kyprou	Angela Christa
Andrea Sherko	Andrew Lack	Angela Constantine
Andreas Kontou	Andrew Laird	Angela Fayth
Andreas Zervides	Andrew Leech	Angela Flynn
Andree Fleming	Andrew Lisperguer	Angela Gallant
Andrew Atherton	Andrew Macneil	Angela Gibbs
Andrew Balaam	Andrew March	Angela Haynes
Andrew Bales	Andrew Martin	Angela Kay
Andrew Barnes	Andrew Mason	Angela Kloppenborg
Andrew Bennett	Andrew McCabe	Angela Lemanis
Andrew Biggin	Andrew McClelland	Angela Osborne
Andrew Branton	Andrew McKenzie	Angela Pollard
Andrew Brincat	Andrew McNaughton	Angela Rats
Andrew Brown	Andrew Meddick	Angela Savage
Andrew Buzacott	Andrew Mikkelsen	Angela Shearing
Andrew Campbell	Andrew Monks	Angela Snow
Andrew Cassar	Andrew Muir	Angela Steffensen
Andrew Chant	Andrew Napier	Angela Swan
Andrew Chattington	Andrew Nicolaoy	Angela Tarran
Andrew Collett	Andrew Noble	Angelica Primrose
Andrew Colverson	Andrew Opie	Angelika Seegel
Andrew Connor	Andrew Pandeli	Angelina Germano
Andrew Crouch	Andrew Park	Angelo Sercia
Andrew Dainton	Andrew Pedder	Angie Kelly
Andrew Del Romano	Andrew Prentice	Angie Tonks
Andrew Dooley	Andrew Robertson	Angus
Andrew Dragoli	Andrew Russell	Angus Davidson
Andrew Dudas	Andrew Sacchetta	Angus Gauld
Andrew Dundon	Andrew Sandwith	Angus Kennedy
Andrew Egan	Andrew Smith	Angus Long
Andrew Engert	Andrew Soulsby	Angus Redfearn
Andrew Filippone	Andrew Spencer	Angus Woodhill
Andrew Fitzpatrick	Andrew Sultana	Anika Helene
Andrew Foster	Andrew Swatton	Anil Dasari
Andrew Foudoulis	Andrew Taylor	Animal Biodiversity Alliance
Andrew Gray	Andrew Titterington	Animal Defenders Office
Andrew Grech	Andrew Tofari	Animal Justice Party
Andrew Grmusa	Andrew Topp	Animal Liberation
Andrew Gunnyon	Andrew Verlei	Animal Liberation ACT
Andrew Haig	Andrew Walker	Animal Liberation Party Victoria
Andrew Hassett	Andrew West	Animal Welfare Lawyers

Animals Australia	Anne Hamilton	Anthony Chalhoub
Anita Weinberg	Anne Hillerman	Anthony Chinnery
Anita Xhafer	Anne Hillier	Anthony Ciavarella
Anja Schneider	Anne Holmes	Anthony Colosimo
Anja Thomsen	Anne Leith	Anthony Cook
Anjanette Moore	Anne Makhijani	Anthony Coulter
Ann Brown	Anne Marshall	Anthony D'Adam
Ann Capling	Anne Martinez	Anthony Doyle
Ann Drysdale	Anne McGorrery	Anthony F McDonall
Ann Gray	Anne Morton	Anthony Falasca
Ann Isaacs	Anne Musgrove	Anthony Foggiano
Ann Knowles	Anne Roberts	Anthony Gommers
Ann Lazzaro	Anne Roussac-Hoyne	Anthony Gould
Ann Letch	Anne Savige	Anthony Grech
Ann Lindsey	Anne Williams	Anthony Greed
Ann Marie	Anne Young	Anthony Hamilton-Smith
Ann Pauwels	Annelies Chaplin	Anthony Hawkins
Ann Raouf	Anneliese Mathieson	Anthony Hooper
Ann Robinson	Anneliese Rosenmayer	Anthony Kanavan
Ann Truscott	Anne-Marie Dow	Anthony Kandi
Ann Tulett	Annette Cooper	Anthony Kee
Ann Whitefield	Annette Morris	Anthony Lacco-Nash
Anna Bejanoff	Annette Rielly	Anthony Lemmon
Anna Brewer	Annette Short	Anthony Lococo
Anna Charlton	Anni Haque	Anthony Mancini
Anna Foletta	Annie Broadway	Anthony Marulli
Anna Forehan	Annie Dolan	Anthony Mavrias
Anna Gates	Annie Duncan	Anthony Metry
Anna Hills	Annie Ernst	Anthony Morris
Anna Kosovich	Annie Forbes	Anthony Mortensen
Anna Lanigan	Annie Holding	Anthony Neeman
Anna Marshall	Annie Kennedy	Anthony Noonan
Anna Parker	Annika Ernefelt	Anthony Parker
Anna Roberts	Annika Mills	Anthony Postuma
Anna Weston	Annjira Moungrmai	Anthony Price
Anna Whitehead	AnnMaree McKee	Anthony Psaila
Annabel Richards	Ant Letto	Anthony Pugliese
Annalisa Cranby	Ante Marsan	Anthony Rayner
Annalise Naimo	Anthea Swann	Anthony Rhoden
Anne Bolitho	Anthony Africano	Anthony Rogers
Anne Boyd	Anthony Ardolino	Anthony Sillato
Anne Button	Anthony Ball	Anthony Spiteri
Anne Cahir	Anthony Beyer	Anthony Symes
Anne Collins	Anthony Bonnici	Anthony Tana
Anne Dennis	Anthony Brown	Anthony Tarpangos
Anne Edwards	Anthony Calleja	Anthony Tartaglia
Anne Foster	Anthony Cammaroto	Anthony Taylor
Anne Frances	Anthony Capotosto	Anthony Troup
Anne Giddens	Anthony Carroll	Anthony Vallelonga
Anne Grice	Anthony Castaldo	Anthony Vicino

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Antoinette Dusaid	Ashley Neilson	Barbara Latham
Anton McIntyre	Ashley Nunn	Barbara Logan
Antonette Galasso	Ashley Perkins	Barbara Murphy
Antonia Cutajar	Ashley Smirl	Barbara Penson
Antonietta Salerno	Ashley Voight	Barbara Stewart
Antonino Fonti	Ashley Wilson	Barbara Taylor
Antonio and Wendy Francis	Ashlie Williaon	Barbara Vaughan
Antonio D'Agostino	Ashton Hakim	Barbera Williams
Antonio Ferrara	Aslin Acisu	Barbie Brandrup
Antonio Mancuso	Astara Tose	Barend Pretorius
Antonio Notaro	Astrid Werner	Barmera Moorook Field and Game
Antonio Toppi	Ateeq Ur Rehman Zafar	Barrie Tyson
Antony Cachia	Athol Brand	Barry Anderson
Antony Clunies-Ross	Audrey Brown	Barry Castle
Antony O'Brien	Audrey Raymond	Barry Cook
Antony Wilson	Audrey Wilson	Barry Gell
Apostolos Malioris	Audry Reyes	Barry Harrison
Apostolos Maltezos	Austin Cram	Barry Jones
April Los	Australian Cypriot Sport Shooting Association	Barry Lingham
April Newton	Australian Deer Association	Barry Oliver
April Vidler	Australian Hunters Club	Barry Papaelia
Aras Veral	Australian Wildlife Society	Barry Sims
Arcadia Callow	Avalon Launer	Barry Wilson
Arch Van der net	Aven Eddington	Barry Wright
Arlen Mendez	Avril Gaastra	Barry Yeatman
Arline Lohli	Avril Green	Bart Irwin
Arlo Enemark	Avtar Kaur	Bart Turgoose
Arrabella Dee	Ayanthi De Silva	Bart Walia
Arron Davies	Aydin Doger	Basil Wagg
Artemis Stephanou	Ayelen Gallardo Cubas	Bass Halwani
Arthur Antonopoulos	Aylah Bonett	Bassam Halwani
Arthur Banks	Azam Toufic	Bastien Marshall
Arthur Byrnes	Baby Boomers for Climate Change Action	baxter Russle
Arthur Kapotas	Back to Country	Beatrix Bayeskennedy
Arthur Nixon	Baden Butler	Beatrix Janek-Oefelein
Arthur Ozdil	Bailey Blackledge	Beau Johnston
Arthur Pap	Bailey Kelly	Beau Richards
Arzu Dogan	Ballarat Field and Game	Beba Fazlic
Ash Dalli	Barb Wade	Bec Farley
Ash Phillips	Barbara Allen	Bec Poitzmann
Ash Scott	Barbara Archer	Beck Brown
Asha Billing	Barbara Brindley	Beck Lamble
Ashkr Audet	Barbara Dixon	Beckie Pluidge
Ashleigh Dunsmore	Barbara J Fraser PhD	Becky Hill
Ashleigh Lee	Barbara James	Belal Haniffa
Ashlen Campbell	Barbara Johnson	Belinda Chambers
Ashley Bolwell	Barbara Jones	Belinda Davis
Ashley Griffiths		Belinda Edmondson
Ashley Hjorth		Belinda Garlick

Belinda Howard	Benjamin Cairney	Bevin McLaren
Belinda James	Benjamin Copeland	Bianca Charmichael
Belinda Judd	Benjamin Dew	Bianca Cook
Belinda King	Benjamin Dodd	Bianca Felix
Belinda Loft	Benjamin Franco	Bill Barbagiannis
Belinda Peel	Benjamin Kettle	Bill Di Donna
Belinda Swalling	Benjamin Maas-Geesteranus	Bill Forrest
Belinda Wells	Benjamin Macdonald	Bill Hardy
Belinda Whitfield	Benjamin McCormick	Bill Higgs
Belinda Wood	Benjamin Meagher	Bill Jorgensen
Belinda Wright	Benjamin Rhodes	Bill Langford
Bella Rodrigo	Benjamin Richards	Bill Mcrae
Ben Albanese	Benjamin Robinson	Bill Murphy
Ben and Leah Atherton	Benjamin Rogers	Bill Riley
Ben Atherton	Benjamin Witham	Bill Shepherd
Ben Burge	Benjamin Zebic	Bill Stent
Ben Burridge	Bentley Bird	Bill Vaneyk
Ben Caruso	Berkha Ahluwalia	Bill Vasili
Ben Christian	Bernadette Cheesman	Bill Velos
Ben Collyer	Bernadette Corbett	Billy Hatzigiannis
Ben Davies	Bernadette Fraser	Billy Kennington
Ben Davis	Bernadette Haagen	Bindy Foley
Ben Dudenas	Bernadette Pet	Biodiversity Council
Ben Ferrier	Bernadette Shingles	Bird Advocacy
Ben Gorski	Bernard Howard	Bird Advocacy Foundation
Ben Grieger	Bernard Maginness	BirdLife Australia
Ben Grimme	Bernard Slattery	Birgit Voss
Ben Hall	Bernhard Liedtke	Bj Byrnes
Ben Harding	Bernice Jenkins	Blair Smith
Ben Henderson	Bernice Mansfield	Blair Speirs
Ben Horstman	Bernie Feth	Blake Jorgensen
Ben Jamieson	Bernie Foley	Bob Dalla Bona
Ben Linguey	Bernie Harris	Bob Franklin
Ben Neave	Beryl Clifton	Bobby Jacobsen
Ben O'Donnell	Beryl O'Connor	Bobby Murthy
Ben Pickles	Beta Training Services	Bodil Johansson
Ben Richards	Beth Massey	Boel Stridbeck
Ben Saunders	Beth Mellick	Bogdan Degtyariov
Ben Sawyer	Bethany Carter	Boris Katic
Ben Schmitt	Bethany Kirley	Boris Stocki
Ben Sims	Betsy Dunne	Bowen Hergstrom
Ben Smith	Bette Mitchell	Brad Austin
Ben Stephson	Bettina Brinfield	Brad Coleman
Ben Thomson	Bettina Rossi	Brad Greenwell
Ben Tipping	Bettina Terry	Brad Haugh
Ben Townsend	Betty Cardwell	Brad Homewood
Ben Wakefield	Bev Cowan	Brad Johnson
Ben Young	Bev Tyler	Brad Krawczyk
Benjamin Agostino	Beverley Dowd	Brad Matthews
Benjamin Bickford	Beverley Gibbons	Brad Mcniven

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Brad Newton	Brendon Stahl	Brian Menheere
Brad Smith	Brenna Billing	Brian Nassar
Brad Stone	Brent Andrews	Brian Richardson
Brad Tull	Brent Kelly	Brian Scantlebury
Brad Watts	Brent Reynolds	Brian Sever
Braden Bekkers	Brent Robinson	Brian Sloan
Braden Douglas	Brenton Armstrong	Brian Snape
Bradley Buckland	Brenton Ford	Brian Swayne
Bradley Fava	Brenton Mitton	Brian Tangey
Bradley Haynes	Brenton Rittberger	Brian Thomas
Bradley Jones	Brenton Young	Brian Wallden
Bradley Leask	Brett Ainsworth	Brian Watson
Bradley McNamara	Brett Archer	Brian Wheatley
Bradley O'Brien	Brett Besanko	Brian Williaon
Bradley O'Donnell	Brett Crozier	Brian Wythe
Bradley Pedder	Brett Dennis	Brianna Tangey
Bradley Varney	Brett Gardner	Bridget Farmer
Bradley Woolley	Brett Haney	Bridget Hogan
Bradley Zammit	Brett Hartmann	Bridget Martin
Bradman Meakin	Brett Hope	Brigid Magner
Brahamjot Singh	Brett Jones	Brigitte Chan
Brandon Marston	Brett Lacey	Brigitte Johnson
Brandon Wirz	Brett Lewis	Briney Wright
Brandyn Threlfall	Brett Neilson	Britt Gregory
Brassington Mark	Brett Oakley	Brittany Kelly
Brayden Murrhy	Brett O'Brien	Brittney Agnieszka
Brayden Roughley	Brett Perry	Brodey Knight
Breanna Sorbian	Brett Playdon	Brodie Gardener
Bree Harris	Brett Reilly	Brodie Whiting
Bree Hetherington	Brett Ryan	Brody Van Dreumel
Brenda Cox	Brett Storie	Bron Barwick
Brenda Greaves	Brett Towers	Bron Dahlstrom
Brenda Moon	Brett Underwood	Bronislaw De Wilmesau-Kozka
Brenda Rocha	Bretta Merifield	Bronnie Lehmann
Brenda Smith	Bretton Gale	Bronwen Mancini
Brendan Alkemade	Brian Barnes	Bronwyn Doyle
Brendan Bonavia	Brian Boyle	Bronwyn Lewis
Brendan Clarke	Brian Buttigieg	Bronwyn Petrie
Brendan Hawking	Brian Carson	Bronwyn Starkey
Brendan King	Brian Cassar	Bronwyn Trimble
Brendan Magrin	Brian Christie	Bronwyn Venables
Brendan Mahoney	Brian Cocks	Bronwyn Woodward
Brendan Mason	Brian Cook	Brooke Hawking
Brendan McKenzie	Brian Dent	Brooke McGlashan
Brendan Regan	Brian Dungey	Brooke Perry
Brendan Thexton	Brian Gibson	Brooke Tangey
Brendan Wild	Brian Hayes	Brooklyn Edwards
Brenden Borg	Brian Jenkins	Bruce Allen
Brendon Carmody	Brian Kelly	Bruce Britton

Bruce Code	Cameron Poole	Caroline Ashworth
Bruce Dalgeish	Cameron Potter	Caroline Bryksy
Bruce Elliot	Cameron Ravadra-Eyes	Caroline Draperich
Bruce Granger	Cameron Rickard	Caroline Hartley
BRUCE HOCKLEY	Cameron Slater	Caroline Hayden
Bruce Howell	Cameron Wheatley	Caroline Highfield
Bruce Howman	Cameron Wilson	Caroline Jumpertz
Bruce Lennon	Camille Bradley	Caroline Macdonald
Bruce Lowerson	Campbell Steigenberger	Caroline Marriott
Bruce Manks	Candace Brown	Caroline Mears
Bruce McKelvie	Carey Sutton	Caroline Poole
Bruce Mullinder	Carin Eisen	Caroline Rogers
Bruce Powell	Carina Stallinga	Caroline Taylor
Bruce Russell	Carl Asbell	Caroline Tully
Bruce Shuttleworth	Carl Mendolia	Caroline Winter
Bruce Wallace	Carla Jackett	Carolyn Barnes
Bruce Webb	Carla McCannon	Carolyn Cooper
Bruno Benavente	Carlo Buccella	Carolyn Davies
Bruno Chene	Carlo Russo	Carolyn Dunn
Bruno Cuscuna	Carlos Acosta	Carolyn Gilpin
Bruno Rettore	Carlos Arenas Carrera	Carolyn Green
Bruno Young	Carly Dober	Carolyn Handley
Bryan Buchanan	Carly Wines	Carolyn Holden
Bryan Darragh	Carmel Barry	Carolyn Kightley
Bryan Sadler	Carmello Niceforo	Carolyn Malkin
Bryn Hills	Carmelo Buccheri	Carolyn McGrath
Bryony Sumner	Carmelo Maio	Carolyn Reeve
Buddhist Council of Victoria	Carmelo Puglisi	Carolyn Smith
Budimir Carapina	Carol Brown	Carolyn Stanford
Bush User Groups United	Carol Campbell	Carolyn White
Buzz Rainbow Wolf	Carol Challis	Carolyn Wilson
C Shanland	Carol Collins	Carolyn Young
Cael Robinson	Carol Cox	Carolyne Den Hartog
Cailin Lian Cunningham	Carol Cumming	Carver Curtis
Cain Kuchel	Carol Drew	Casey Harris
Caine Mason	Carol Fitt	Casey Mclauchlan
Cale Van Munnen	Carol Fraser	Casper Myers
Caleb Burgess	Carol Giompaolo	Cass Parker
Caleb Gonzalez	Carol Harvey	Cassandra Boland
Callum Murray	Carol Martin	Cassandra Borg
Callum Reilly	Carol McAllister	Cassandra Brennan
Callum Wilson	Carol Morris	Cassandra Jan-Vincent
Cameron Bailey	Carol Robertson	Cassandra Pollock
Cameron Beale	Carole de Fraga	Cassandra Westwood
Cameron Bowers	Carole Fearon	Cassidy Geehman
Cameron Clark	Carole Gwynn	Cassidy Richards
Cameron Johnson	Carole Jaacks	Cassie-Jo Hudson
Cameron Kriss	Carole O'Neill	Castlemaine Field Naturalists Club
Cameron McGregor	Carole Williams	Cate Cousland
Cameron McNaughton	Caroline Armstrong	Cath Connelly

Cath Hart	Charles Fivaz	Chloe Zahra
Catherine Atkinson	Charles Green	Chloe-Nicole Bignoux
Catherine Bainbridge	Charles Mchugh	Chris Alkemade
Catherine Bannister	Charles Scicluna	Chris Barber
Catherine Byrne	Charles Sherlock	Chris Barker
Catherine Chaplin	Charles Zahra	Chris Bayley
Catherine Comerford	Charley Greenfield	Chris Bielicki
Catherine Fagan	Charli Brown	Chris Bonavia
Catherine Foot	Charlie Attard	Chris Bosco
Catherine Hainstock	Charlie Branca	Chris Brown
Catherine Irwin	Charlie Camilleri	Chris Burns
Catherine Jackson	Charlie Cutajar	Chris Charalambous
Catherine Leen	Charlie Farrugia	Chris Charleson
Catherine Marshall	Charlie Fenech	Chris Clark
Catherine Mc Naughton	Charlie Fitzpatrick	Chris Collins
Catherine Mckenna	Charlie Grixti	Chris Cotton
Catherine Pisani	Charlie Schroeder	Chris Cunningham
Catherine Richardson	Charlie Suggate	Chris Curmi
Catherine Saint	Charlie Zammit	Chris Delforce
Catherine Tiplady	Charlotte Allen	Chris Dunbar
Catherine Watson	Charlotte Boulton	Chris Dunn
Catherine Wright	Charlotte Goldsworthy	Chris Dwyer
Catherine Zahra	Charlotte Townson	Chris Evans
Cathie Lauria	Charmaine Schmidt	Chris Filshie
Cathy Devine	Chelsea Hill	Chris Foyster
Cathy Hagan	Chelsea Lloyd	Chris Green
Cathy Hekmeijer	Chelsea Williams	Chris Grushas
Cathy Mitchell	Cher Thomas	Chris Halligan
Cathy Moore	Cheri Donaldson	Chris Hamakiotis
Cathy Muscat	Cherie Harlow	Chris Hammond
Cathy Richardson	Cherie Kneebone	Chris Hopper
Catriona Marshall	Cherie Wilson	Chris Humphries
Cayden Wilkes-Roberts	Cheryl Arnol	Chris Kelly
Cecil Haysom	Cheryl Burnside	Chris King
Cecilia Butker	Cheryl Dedman	Chris Kirby
Cecilia Egan	Cheryl Downes	Chris Knock
Cees Ferwerda	Cheryl Forrest-Smith	Chris Loew
Celia Loneragan	Cheryl Freeman	Chris Lord
Cerise de Gelder	Cheryl Joy Long	Chris Magill
Chad Cross	Cheryl Lundin	Chris Mark
Chad Saliba	Cheryl Peiffer	Chris Markopoulos
Chanel Farrugia	Cheryl Scott	Chris Martin
Charalambos Christodoulou	Cheryl Sheilds	Chris Mc Gibbon
Charbel Asmar	Cheryl Taylor	Chris McMennemin
Charlene Kenney	Cheryl Tyler	Chris Mesaritis
Charles Alexander	Cheryl Watters	Chris Mitchell
Charles Azzopardi	Cheryl West Lau	Chris Mitsarakis
Charles Cayless	Ches Mills	Chris Monteleone
Charles Davis	Chloe Davidson	Chris Murley
Charles Dimech	chloe leen	Chris Muscat

Chris Niblett	Christine Mcauley	Clare Canty
Chris O'Neil	Christine Nowak	Clare Carpenter
Chris Otto	Christine Parker	Clare Cotton
Chris Owsianka	Christine Smith	Clare Doran
Chris Pace	Christine Titheridge	Clare Harrison
Chris Patterson	Christine Vanderwerf	Clare Johnson
Chris Pegg	Christine Whalan	Clare Maddigan
Chris Phillips	Christine Witton	Clare Mann
Chris Prince	Christopher Andraczke	Clare Nesdale
Chris Purton	Christopher Cefai	Clare Parr
Chris Roberts	Christopher Collins	Clare Stanton
Chris Sanders	Christopher Dixon	Claude Borg
Chris Scott	Christopher Frazer	Claude Joseph Ceccomancini
Chris Skondras	Christopher Gallagher	Claudia D'Adam
Chris Stolke	Christopher Gauld	Claudia Madison
Chris Taylor	Christopher George	Claudia Priori
Chris Tingay	Christopher Giordimaina	Claudio Cantiani
Chris Varvaigos	Christopher Groves	Clayton Arthur
Chris White	Christopher Gulino	Clayton Azzopardi
Chris Whitton	Christopher Hill	Clayton Bate
Chris Wright	Christopher Kyriacou	Clayton Draper
Chrissy Freestone	Christopher Laver	Clayton Easden
Christ is Christofi	Christopher Longmuir	Climate Save Australia
Christa Brendel	Christopher Macartney	Clinton Exge
Christakis Kazis	Christopher McWilliam	Clinton Murray
Christian McGauran	Christopher Michaelides	Clinton Scott
Christian Tartaglia	Christopher Mitchell	Clive Catlow
Christian Vetter	Christopher Morris	Clive Colchester
Christian West	Christopher Penman	Clive Hiskins
Christiane Jaeger	Christopher Robinson	Clive Newman
Christina Hocking	Christopher Rossi	Clive Risam
Christina Karagiorgis	Christopher Sawyer	Clive Riseam
Christina Lonsdale	Cindy Antulov	Club L'Epagneul Breton
Christina Maher	Cinthia Galvez	Clyde May
Christina Mitsarakis	Cipriano Di Tella	Coalition Against Duck Shooting
Christine Archer	Clair Knobloch	Coby Roughley
Christine Bisset	Claire Brown	Cody Andrews
Christine Cemm	Claire Galea	Cody Cameron
Christine Contis	Claire Giuffre	Cody Howard
Christine Cook	Claire Harrison	Cole Dickson
Christine Evans	Claire Hennekam	Colette Kremer
Christine Forsey	Claire Mannion	Colette Russell
Christine Gibbs	Claire Miller	Colin Barker
Christine Gingell	Claire O'Dwyer	Colin Curtis
Christine Henry	Claire Philp	Colin Drummy
Christine Hope	Claire Stevens	Colin Eden
Christine Hunter	Clancy Holzgreffe	Colin Finlayson
Christine Lehmann	Clancy Whelan	Colin Gibbs
Christine Macpherson	Clara Cracchiolo	Colin Hales
Christine Matthews	Clare Brophy	Colin Kuster

Colin Ray	Craig Davey	Damian Sandy
Colin Silvey	Craig Delbridge	Damien Goodrem
Colin Tester	Craig Dergacz	Damien James
Colin Wake	Craig Drendel	Damien Milton
Colin Wood	Craig Durand	Damien Morris
Colin Woodgate	Craig Everard	Damien Noonan
Colleen Berriman	Craig Florence	Damien O'Brien
Colleen Bye	Craig Hazendonk	Damien Wendelborn
Colleen Corbett	Craig Hesse	Damir Ticina
Colleen Farrelly	Craig Hill	Dan Agostino
Colleen Keane	Craig Hunnam	Dan Flynn
Colleen Meehan	Craig Macalpine	Dana Alasker
Colleen Murray	Craig McCormack	Dana Brookes
Colleen Wysser - Martin	Craig McGregor	Dana Gibson
Con Bourantas	Craig Mensforth	Dana Sang
Con Chrys	Craig Mildwaters	Dani Annese
Con Nicholas	Craig Nichols	Danial and Cindy Power
Conan Daley	Craig Oliver	Daniel Arvidson
Connie Gibbons	Craig Redford	Daniel Attard
Connor Bombardieri	Craig Reeves	Daniel Bennett
Connor Keck	Craig Roberts	Daniel Blain
Connor Riley	Craig Rule	Daniel Burns
Connor Ryan	Craig Smith	Daniel Chaffey
Connor Westbrook	Craig Stoddart	Daniel Chick
Conor Moylan	Craig Sultana	Daniel Chinn
Conor Serong	Craig Whiteford	Daniel Cini
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Coral Hughes	Cristine Logal	Daniel Craven
Coralie Davies	Crosby Lyne	Daniel Demasi
Corbin Clark	Curtis Hillbrick	Daniel Dimachki
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Corey Johnston	Cynthia Findlay	Daniel Fenech
Corey Kee	Cynthia Hancke Hancke	Daniel Filizzola
Corey Nolan	Cynthia Lyons	Daniel Flemming
Corey Quinlan	Da Gooch	Daniel Gardner
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Corine Weber	Dale Atherton	Daniel Hawkins
Corinna Sullivan	Dale Babic	Daniel Hegarty
Corinne MacKenzie	Dale Skinner	Daniel Honig
Cornelia Alcoseba	Dale Slater	Daniel Hume
Cornelia Herschel	Dale Smith	Daniel Johns
Corrie Avery	Dale Young	Daniel Johnson
Corrin Avery	Dallas Grant	Daniel Jovanovic
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Courtney McKenzie	Damian Kelly	Daniel Kettle
Craig Boase	Damian McCrohan	Daniel Klraly
Craig Charlton	Damian McLeod	Daniel Kistler

Daniel Kotevski	Dannielle Craig	Daryl Sandford
Daniel Kunjasic	Danny Armstrong	Daryl Snowdon
Daniel Lacey	Danny Asmussen	Dashmir Emini
Daniel Lee	Danny Charalambous	Dassi Herszberg
Daniel Lees	Danny Elford	Dave Archer
Daniel Logan	Danny Hanna	Dave Coulton
Daniel Lorenzini	Danny Stone	Dave Cross
Daniel Mariko	Danny Timmers	Dave Fent
Daniel Martello	Danny Zanella	Dave Griffin
Daniel Martin	Dany Tara	Dave Handscombe
Daniel McCrone	Danyel Attard	Dave Hergstrom
Daniel Micallef	Daphne Hards	Dave Patterson
Daniel Miller	Darci Hutchinson	Dave White
Daniel Missen	Darcie Richards	David Adams
Daniel Muir	Darcy Gulino	David Aldridge
Daniel Mummery	Darren Arch	David Araldi
Daniel Murphy	Darren Axon	David Avard
Daniel Murra	Darren Blair	David Benn
Daniel Nagyivan	Darren Bloomfield	David Borg
Daniel Notaro	Darren Bordieri	David Bortoli
Daniel O'Brien	Darren Camilleri	David Brown
Daniel Peile	Darren Connell	David Burke
Daniel Portelli	Darren Connelly	David Butterfield
Daniel Redfearn	Darren Gray	David Campbell
Daniel Ritchie	Darren Grech	David Cannestra
Daniel Rowse	Darren Greene	David Cassar
Daniel Ryan	Darren Hartney	David Cauchi
Daniel Sacchetta	Darren Knox	David Charles
Daniel Seyd	Darren McMahon	David Charlton
Daniel Simpson	Darren Murray	David Colman
Daniel Spark	Darren newlyn	David Cox
Daniel Spiteri	Darren Sandy	David Debono
Daniel Stanilovic	Darren Sculley	David Demasi
Daniel Straub	Darren Stendt	David Eaton
Daniel Surace	Darren Young	David Eggington
Daniel Tenaglia	Darron Loder	David Elliott
Daniel Theodoulou	Darryl Birrell	David Evans
Daniel Tonkin	Darryl Giles	David Fearnley
Daniel Verrocchi	Darryl Middleton	David Forbes
Daniel Wake	Darryl Wells	David Formosa
Daniel Webby	Darryl Yesberg	David Francis
Daniel Young	Darryn Jones	David Gardiner
Danielle Facey	Darryn Smith	David Garrett
Danielle Fox	Darryn Worthy	David Gartland
Danielle Maassen	Daryl Bolton	David Gentle
Danielle Marlow	Daryl Borthwick	David Graham
Danika Hollis	Daryl Hook	David Grainger
Danilo Delfrate	Daryl Howard	David Grech
Danni Catterall	Daryl Irwin	David Hawker
Dannielle Chandler	Daryl Leyonhjelm	David Heenan

David Hewitt	David Steigenberger	Debbie Nickell
David Heyes	David Stephens	Debbie Tully
David Hocking	David Stevens	Debby Hannaway
David Hodgman	David Stoddart	Debi Hamilton
David Hogan	David Summer	Deborah Atkins
David Hore	David Suttie	Deborah Campbell
David Hounsell	David Thomas	Deborah Clarke
David Jefferson	David Torr	Deborah Grima
David Jenkins	David Townsend	Deborah McLean
David Johnstone	David Trickey	Deborah Meester
David Jones	David Tunks	Deborah Muffet
David Kennedy	David Wait	Deborah Sell
David Kneebone	David Wardill	Deborah Smith
David Lamb	David Webb	Deborah Tremayne
David Lennon	David Wegmann	Deborah Wargon
David Lester	David Weston	Deborah Webby
David Little	David Williams	Debra Dragonheart
David Margerison	David Zorzanella	Debra Foreman
David Marshall	Davita Coronel	Debra Kousal
David McCloskey	Dawn Hamilton	Debra Oldland
David McGrillen	Dawn Hooley	Debra Parker
David Meiers	Dawn Prasad	Debra Thorpe
David Mercer	Dawne Wallace	Declan
David Miller	Dayna Andreussi	Declan Hanratty
David Millsom	Deakin Law School	Declan James
David Morley	Dean Adams	Dee Pearsall
David Morrissey	Dean Andrews	Dee Wallis
David Mould	Dean Chisholm	Deeana Predic
David Mouzakis	Dean Gibson	Defend the Wild
David Neate	Dean Grealy	Deidre Morrison
David Nemirovsky	Dean Grice	Deion Carr
David Pike	Dean Ingram	Deirdre O'Sullivan
David Potter	Dean Kelly	Deirdre Willis
David Price	Dean Lewis	Dejan Nestorovski
David Puopolo	Dean Maher	Delfina Manor
David Rea	Dean McFarlane	Deline Skinner
David Reed	Dean McLaren	Dell Macneill
David Rees	Dean Platt	Demetra Liapis
David Regal	Dean Richardson	Demetre Charalambous
David Reilly	Dean Rundell	Demi Lunt
David Richards	Dean Speers	Dena McAbee
David Ristrom	Dean Taylor	Dene Townsend
David Rose	Deana Galea	Denika Arthur
David Russell	Deanna Carbone	Denis Connelly
David Seward	Deanne Smith	Denis Gibson
David Scott	Deb Thomas	Denis Poulton
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Jennifer Libbis	Jess Azzopardi	Jill Ryan
Jennifer Lonsdale	Jess Lett	Jill Slater
Jennifer McDonald	Jess Lilburne	Jill Thio
Jennifer McKechnie	Jess Walters	Jill Van Es
Jennifer Meyer-Smith	Jesse Blackledge	Jill Williams
Jennifer Mills	Jesse Brincat	Jillian Alsford
Jennifer Osmundson	Jesse Croke	Jillian Gara
Jennifer Price	Jesse Hale	Jillian Gonzalez
Jennifer Quigley	Jesse Kistler	Jillian Pelvin
Jennifer Rolland	Jesse Zammit	Jillian Sokol
Jennifer Rosater	Jessica Adams	Jilmer Hamstra
Jennifer Ruhsam	Jessica Addley-Cook	Jim Barnes
Jennifer Skewes	Jessica Broadbent	Jim Bob
Jennifer Smith	Jessica Carson	Jim Brennan
Jennifer Trevascus	Jessica Farrar	Jim Evans
Jennifer Turner	Jessica Fontana	Jim Goudie
Jennifer Valentine	Jessica Gauld	Jim Johnson
Jennifer Visentin	Jessica Good	Jim Lidgerwood
Jennifer Wellard	Jessica Hargrave	Jim Malone
Jennifer Westwood	Jessica Hillan	Jim Muirhead
Jennifer Williams	Jessica James	Jim Pirotta
Jenny Alford	Jessica Kafcalouides	Jim Roberts
Jenny Baker	Jessica McAuliffe	Jinnie Goodlake
Jenny Brown	Jessica Medwedew	Jitka Nova
Jenny Garley	Jessica Odelli	Jiuseppe Maiolo
Jenny Gay	Jessica Pinney	Jo Bale
Jenny Granger	Jessica Robb	Jo Berens
Jenny Griffiths	Jessica Stoneman	Jo Borg
Jenny Guest	Jessica Thatcher	Jo Connellan
Jenny Lawson	Jessica Turner	Jo Drummond
Jenny McFarlane	Jessica Webster	Jo Dukaric
Jenny Neale	Jessica Wilson	Jo Featherston
Jenny Robinson	Jessica Wrench	Jo Howes
Jenny Toye	Jessica Wysser	Jo Johnston
Jeremy Agastino	Jessie Fitzpatrick	Jo Man
Jeremy Collins	Jessie Mullins-Baker	Jo Thielmann
Jeremy Daalder	Jessie Weatherley	Jo Tibbitts
Jeremy Grealy	Jet Briwn	Jo Torpey
Jeremy Haugthy	Jet Tranter	Joan Bowker
Jeremy Johnson	Jiean Luo	Joan Duckham
Jeremy Kent	Jihad Barbar	Joan Porter
Jeremy Milhuisen	Jill Bough	Joanna Collins
Jeremy Murray	Jill Brown	Joanna Feely
Jeremy Singh	Jill Casavecchia	Joanna Vautier
Jeremy Snowden	Jill Coyte	Joanna Watts
Jeremy Tonkin	Jill King	Joanne Bell
Jeremy Venables	Jill Korevaar	Joanne Blachut
Jerome Giordano	Jill Redwood	Joanne Blaik
Jerry Magri	Jill Reichstein	Joanne Brown
Jesper Hansen	Jill Russell	Joanne Foster

Joanne Garden	Joel Vrymoet	John Graham
Joanne Horniman	Joelene Lyons	John Gregurke
Joanne Law	Joellen Hair	John Gulino
Joanne Lee	Johanna Rantala	John Gwynn
Joanne Madden	Johanna Straney	John Hall
Joanne Mills	Johanna Swales	John Helme
Joanne Southern	John Allan	John Hird
Joanne Tarbuck	John and Louise Ludbrook	John Hirt
Joanne Thompson	John and Robbie Wertin	John Howe
Joanne Wearing	John Arthurson	John Islip
Jocelyn Pini	John Athanasiou	John Jacobs
Jock Blair	John Azzopardi	John Karlovic
Jodi Greene	John Badham	John Katiforis
Jodi Magi	John Baring	John Kay
Jodi Rodar	John Barkla	John Keane
Jodie Downey	John Barresi	John Kiely
Jodie Kuriata	John Bartlett	John King
Jodie Oliver	John Begg	John Krelle
Jodie Pickens	John Berry	John Kus
Jodie Winnell	John Blain	John Laing
Jodie Yemm	John Bowman	John Lambden
Jody Wallace	John Bramley	John Landon
Joe Albanese	John Brincat	John Larin
Joe Aprile	John Brown	John Lazarou
Joe Borg	John Brumfield	John Leen
Joe Bove	John Byers	John Long
Joe Cameron	John Camilleri	John MacInnes
Joe Camilleri	John Carruthers	John MacKinnon
Joe Carabott	John Cassar	John Mallouris
Joe Christian	John Cayless	John Mancino
Joe Cosentini	John Chandler	John Martin
Joe Erftemeyer	John Chasapis	John Maxwell
Joe Finis	John Clancy	John Mayall
Joe Gentile	John Clements	John McCrory
Joe Green	John Concy	John McDougall
Joe Kealy	John Craig	John McMahon
Joe Koros	John Cull	John McWilliam
Joe Maher	John Desmond	John Micallef
Joe Miceli	John Di Natale	John Mitchell
Joe Minichiello	John Dimasi	John Mitros
Joe Puma	John Doll	John Morley
Joe Tricase	John Downward	John Morrissey
Joe Yarak	John Drysdale	John Morrissey
Joe Youssef	John Duke	John Murdoch
Joel Begley	John Ferguson	John Murphy
Joel Bloom	John Fleming	John Nash
Joel English	John Fraser	John Nelson
Joel Meaney	John Gately	John Olsen
Joel Newman	John Gillahn	John Passarin
Joel Passarin	John Gloury	John Paterson

John Peek	Jon-Paul Wregg	Joshua Scicluna
John Pettigrew	Jonty Dumesny	Joshua Stillwell
John Price	Jordan Adkins	Joshua Walker-Teunon
John Rello	Jordan Cox	Joshua White
John Reynolds	Jordan Crook	Joshua Wong
John Riddle	Jordan Finn	Joshua Zahra
John Robinson	Jordan Giri	Josiane Smith
John Rogers	Jordan Harman	Josko Carapina
John Rosenhain	Jordan Moar	Joy Eason
John Rushworth	Jordan Provost	Joy Emmett
John Scully	Jordan Ragogna	Joy Foster
John Shaw	Jordyn Lewis	Joy Henderson
John Simpson	Jorg Franzen	Joy Matons
John Strieker	Josef Farnik	Joyce Blankley
John Sullivan	Joseph Camilleri	Joyce Filauri
John Sutherland	Joseph Cauchi	Joyce Key
John Sykes	Joseph Densley	Joyce Pearson
John Szatkowski	Joseph Desira	Joye Podubinski
John Taliana	Joseph Maw	Juanita Schulties
John Thompson	Joseph Pellone	Juby George
John Torresan	Joseph Restall	Jude Belcher
John Tserkezidis	Joseph Scicluna	Judi Connelli AM
John Vasil	Joseph Scott	Judith Arayaes
John Wright	Joseph Spiteri	Judith Bailey
John Young	Joseph Vallelonga	Judith Brooks
Johnathon DiNatale	Joseph Vassallo	Judith Bull
Johnny Kocev	Josephine Erlich	Judith Cohen
Jo-lee Kennedy	Josephine Spiteri	Judith Collis
Jon Arthus	Josh Budd	Judith Collus
Jon Cairney	Josh Dodd	Judith Durston
Jon Greening	Josh Evelyn	Judith Galewski
Jon Morey	Josh Hawking	Judith Green
Jon Park	Josh Mabon	Judith Hance
Jon Thomas	Josh Maloney	Judith Hopley
Jon Williamson	Josh Mazurek	Judith Leslie
Jonathan Ashford	Josh Meadows	Judith McBeath
Jonathan Baliko	Josh Scott	Judith Nimmo
Jonathan Buckland	Josh Segond	Judith Perrin
Jonathan Camilleri	Josh Sloane	Judith Rodda
Jonathan Crockett	Josh Vernon	Judith Russell
Jonathan Levett	Joshua Anderson	Judith Sise
Jonathan Tan	Joshua Bordieri	Judith Smale
Jonathan Thompson	Joshua Brekalo	Judith Smart
Jonathan Whyte	Joshua Caruana	Judith Smullen
Jonathan Withers	Joshua Caruso	Judith Szalontai
Jonathan Wynn	Joshua Ellis	Judith Venables
Jonathon Hatfield	Joshua Gardner	Judith Welsh
Jonathon Horsfall	Joshua Marshall	Judith Worcester
Jonathon Terrill	Joshua Mccoombe	Judy Addison
Jonathon Wilson	Joshua Minden	Judy Bell

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Judy Coram	Julie Martin	Justine Clark
Judy Egan	Julie Matthews	Justine Webse
Judy Evans	Julie Oates	Jutta Hau
Judy James	Julie Power	Jye Agius
Judy Martin	Julie Proietto	Kacey King
Judy Mraz	Julie Reason	Kahlia Weir
Judy Oates	Julie Robinson	Kai Weinbeck
Judy Pattinson	Julie Rowley	Kaitlin Every
Judy Thomas	Julie Sillato	Kaitlin Fearn
Juha Virtanen	Julie Slight	Kaj Andersson
Juiseppa Canturi	Julie Sloan	Kalaitzis Alex
Julia Broad	Julie Taylor	Kaley Brennen
Julia Burke	Julie Widdowson	kalindi Ochoa Botero
Julia Casaretto	Julie Wilson	Kalliopi Grafakou
Julia Collin	Julie Wyner	Kamilla Borzeta
Julia Conlan	Julieann Docherty	Kane Fitzpatrick
Julia Deasley	Julienne Beasley	Kane Lees
Julia Famlonga	Julienne Tan	Kane Ricketts
Julia Grueskin	Juliet Allen	Kane Thomas
Julia Gutbrod	Juliet Hogg	Kara Hele
Julia Jaensch	Juliet Whittaker	Kara Zervides
Julia Johnston	Juliette Claridge	Karan Balfour
Julia Mulvogue	Juliette Haddow	Karen Booth
Julia Prickwick	Julija Merljak	Karen Bowley
Julia Symons	Julius Lewis	Karen Boyd
Julian Conte	June Anton	Karen Bradley
Julian Cornish	June de Vaus	Karen Campbell
Julian Curmi	June Fitzgerald	Karen Cancian
Julian Di Stefano	June Frost	Karen Cardwell
Julian Lieshout	June Furness	Karen Davies
Julian Wilcox	Jurgen Hemmerling	Karen Davitt
Julian Yaxley	Justiene Hunter	Karen Fostel
Julie Ager	Justin Aquilina	Karen Furlong
Julie Barnes	Justin Azzopardi	Karen Furniss
Julie Begg	Justin Brown	Karen Gelley
Julie Burton	Justin Cook	Karen Gifford
Julie Butt-Henley	Justin Day	Karen Gilmartin
Julie Carpenter	Justin Jervies	Karen Gray
Julie Carswell	Justin Kneebone	Karen Gunn
Julie Collyer	Justin Launer	Karen Hinds
Julie Dean	Justin Lipman	Karen Houghton
Julie Durnin	Justin Little	Karen Hunt
Julie Gardner	Justin Mohr	Karen Jackson
Julie Grogan	Justin Myers	Karen Jones
Julie Harmsworth	Justin Ribaux	Karen Keefe
Julie Hodor	Justin Slattey	Karen Lee
Julie Holt	Justin Stanbury	Karen Lockwood
Julie Hunt	Justin Trist	Karen Macfarlane
Julie Kolges	Justin Van putten	Karen Mansour

Karen McMillan	Katelyn Ulbrick	Kaye Bignell
Karen Micallef	Katerina Zrneckova	Kaye Moseley
Karen Murray	Kath Clune	Kaye Oddie
Karen OConnell	Kath Dolan	Kaye Powell
Karen Quitt	Katharina Rapp	Kaye Wright
Karen Rees	Katharine Balson	Kayla Grassi
Karen Sadgunn	Katharine Barrett	Kaylee Gillett
Karen Sanchez	Katherine Andrea	Kayleigh Caruana
Karen Shepard	Katherine Brooker	Keegan Holland
Karen Shugg	Katherine Colclough	Keegan Power
Karen Spring	Katherine Hay	Keith Cruickshank
Karen Templeton	Katherine Henderson	Keith Farrugia
Karen Tolson	Katherine Ingwersen	Keith Gallagher
Karen Visser	Katherine Macmillan	Keith Graham
Karen Vondruska	Katherine Messer	Keith Hindley
Karen Wolf	Katherine O'Grady	Keith Rollason
Karin Kistler	Katherine Wells	Keith Thompson
Karin Rettig	Kathie M Thomas	Keith Walton
Karin Xuereb	Kathleen Bordieri	Keith Williams
Karina Leung	Kathleen Chapman	Kelky Frost
Karinda Menheere	Kathleen Cunningham	Kellen Dunn
Karl Hales	Kathleen Dunn	Kellie Armistead
Karl Joiner	Kathleen Kinsey	Kellie Wooldridge
Karl Landorf	Kathleen Steigenberger	Kelly Ainslie
Karl Wennagel	Kathryn Casey	Kelly Aitken
Karla McKinlay	Kathryn McRae	Kelly Chandler
Karra Rees	Kathryn Skidmore	Kelly Dingeldei
Karwn Holmes	Kathy Bond	Kelly Gamble
Kashma Pillay	Kathy Dorr	Kelly Hocking
Kat Oakley	Kati Patterson	Kelly McKay
Kat Smith	Katianne Ericson	Kelly Moody
Kataline Rose	Katie Bowker	Kelly Mott
Katarina Widderington-Oliver	Katie Butcher	Kelly Nutt-Edson
Kate Apostolopoulos	Katie Menzies	Kelly Russell
Kate Bossence	Katie Thomas	Kelly Valentine
Kate Buchanan	Katie Wynter	Kelsey Van Der Pol
Kate Fenby	Katina Czychelisz	Kelvin Farley
Kate Glover	Katri Pagliaro	Kelvin Nicholls
Kate Gorringer-Smith	Katrina Emmett	Kelvin Rogers
Kate Hope	Katrina Fraser	Kelvin Shelley
Kate Hutchinson	Katrina Morrison	Kelvin Thomson
Kate Kopke	Katrina Newman	Kelvin Williams
Kate Larsen	Katrina Newton	Ken Brooks
Kate Natsume	Katrina Stomann	Ken Chisholm
Kate O'Donovan	Katt Murray	Ken Hallion
Kate Puopolo	Kay Bradfield	Ken Hambling
Kate Roberts	Kay Hatherly	Ken Lang
Kate Sloan	Kay Labo	Ken Reidy
Kate Vivian	Kay Podmore	Ken Slee
Kate Willison	Kaycey Simmons	Kenneth Beecroft

Kenneth Blaker	Kevin Smith Viorklunds	Konstantinos Samartzis
Kenneth Courtis	Kevin Sparrow	Konstantinos Skolarikis
Kenneth Farmer	Kevin Swanepoel	Kosta Athanasiou
Kenneth Hooper	Kevin Tealby	Kosta Collivas
Kerri Anne McKenna	Kevin Waters	Kosta Pizzi
Kerrianne Rayner	Khaled Halwani	Kostadinos Liapis
Kerrie Warburton	Khaled Hamad	Kris Bernard
Kerry Baker	Khyalla Goldsworthy	Kris Grant
Kerry Burkitt	Kieran Carson	Kris Grixti
Kerry Dawborn	Kieren Demasi	Kristey Van-Ristell
Kerry Fagan	Kieren Shelley	Kristian Vazzoler
Kerry Ford	Kim Asher	Kristie Cronin
Kerry Haddon	Kim Barker	Kristin Leigh Bacon
Kerry Heenan	Kim Bell	Kristin Wennagel
Kerry Heinrich	Kim Clarke	Kristina Elvidge
Kerry Jordan	Kim Dutton	Kristina Leonard
Kerry Lee	Kim Huggins	Kristine Kelch
Kerry Mason	Kim Humphreys	Kristy Kilpatrick
Kerry McGrath	Kim Matousek	Kristy Lewis
Kerry O'Meara	Kim McDonald	Kristy Thomas
Kerry Phelan	Kim Peters	Krystal Butler
Kerry Proctor	Kim Sinclair	Krystal Ha
Kerry Richards	Kim Stacey	Krystal Leathart
Kerry Smillie	Kim Ward	Krystal Pavli
Kerry Smith	Kim Wormald	Kumari Alahakoon
Kerry Sturmfels	Kimberlee Garner	Kurt Barnes
Kerry Tait	Kimberley Batson	Kurt Jenkins
Kerry Walker	Kimberley Brett	Kydon Vicino
Kerryn Marlow	Kimberley Millott	Kye Atkinson
Keryn Johnson	Kimberley Pettit	Kyle Borg
Kevin Anderson	Kimberly Nguyen	Kyle Hadathy
Kevin Andrews	Kirill Orlov	Kyle Maher
Kevin Botterill	Kirri van Haaster	Kyle Monigatti
Kevin Bradley	Kirsa van Scheepen	Kyle Saari
Kevin Cook	Kirsten Ferguson	Kyle Spurr
Kevin Dean	Kirsten Hughes	Kyle Williaon
Kevin Dyke	Kirsten Sandy	Kylie Abernethy
Kevin Edmonds	Kirsten Sheilds	Kylie Butler
Kevin Fowkes	Kirsty Willaton	Kylie Crane
Kevin Gommers	Kirstyn Sansom	Kylie Dowd
Kevin Hargreaves	Klara Kopas	Kylie Doyle
Kevin Holden	Klaus Jaritz	Kylie Hocking
Kevin Jones	Klaus Schneider	Kylie Robinson
Kevin King	Ko Dowd	Kylie Southgate
Kevin Kirley	Koala Action	Kylie Willingham
Kevin Maddigan	Koha Mason	Kym Harley
Kevin Maskell	Kok Leong Tan	Kym Oakley
Kevin McLaren	Kon Katsimalis	Kym Oliver
Kevin Pattinson	Konstandinos Sergakis	Kyra Quinlivan
Kevin Saunders	Konstantia Bobotis	Kyri Kyriacou

Kyriakos Papoulis	Laura Woolley	Lee Mitchener
Kythe Mackenzie	Lauren Leatham	Lee O'Mahoney
Labib Faddoul	Lauren Swatton	Lee Palumbo
Lachlan Andrews	Lauren Temuskos	Lee Pattinson
Lachlan Baker	Lauren Wallis	Lee Ponzio
Lachlan Blake	Lauren Watt	Lee Wright
Lachlan Brewer	Lauren Wilson	Lee-Ann Chalmers
Lachlan Costelow	Laurence Clutterbuck	Lee-Anne Yuill
Lachlan Gorman	Laurence Comerford	Leesa Clark
Lachlan Hunter	Laurence Martin	Leeyong Soo
Lachlan Irving	Laurice Malone	Leigh Ackland
Lachlan Kanavan	Laurie Beck	Leigh Anderson
Lachlan Kelly	Laurie Bouch	Leigh Coggins
Lachlan McGill	Laurie Canavan	Leigh Cornish
Lachlan Nikolajew	Laurie Da Ros	Leigh Darmanin
Lachlan Simpson	Laurie Desira	Leigh Francis
Lachlan Speirs	Laurie McMartin	Leigh Green
Lachlan Thomson	Laurie Phelan	Leigh Holmes
Lachlan Wakefield	Law Institute of Victoria	Leigh Hornsby
Lachlan Woods	Lawrence Cachia	Leigh Kidman
Lafcadio Zuccarello	Lawrence Zoch	Leigh Logan
Lai Aw	Lawrie Edwards	Leigh Plant
Laine Ridley	Lawrie West	Leigh Richardson
Lainey Cameron	Lawyers for Animals	Leigh Saward
Lakshmi Nagodavithane	Loyal Abi khalil	Leigh Shields
Lana Edwards	Layne Matthews	Leigh Swan
Lance Fisher	Lea-Anne Ledden	Leighton Brown
Lance Pattison	Leah Atherton	Leila Merritt
Lance Scott	Leah Beah	Leisa Lloyd
Lane Williamson	Leah Evans	Len Bunning
Lani Wright	Leah Folloni	Len Mifsud
Laongdown Mongkolyut	Leah Kaminsky	Lena Drysdale
Lara Bickford	Leah Reid	Lenny Martin
Lara Mainka	Leah Wendelborn	Lenore Taylor
Larissa Jane Anderson	Leanne Ameron	Leo Bateman
Larry Poloniato	Leanne Hudson	Leo Hatzigiannis
Lars Scott	Leanne Jackson	Leo Jones
Latrobe Valley Field Naturalists Club	Leanne Kelly	Leo Kossaris
Laura Canaletti	Leanne Penola	Leonard Baker
Laura Fonti	Leanne Scanlon	Leonard Bond
Laura Hobbs	Leanne Scott	Leonard Fitzpatrick
Laura Jenkins	Lee Cheyne	Leonard Hall
Laura Lumachini	Lee Cousins	Leonie Bessant
Laura Postlethwaite	Lee Duffield	Leonie Daws
Laura Potts	Lee Fitzgerald	Leonie Hegarty
Laura Pytlik	Lee Iafrate	Leonie Kitchen
Laura Sanhueza	Lee Marriott	Leonie Lewington
Laura Scott	Lee McCheyne	Leonie Schween
Laura Wagner	Lee McKay	Leroy Lim
	Lee Miller	Les Bowes

Les Francis	Linda Clark	Lisa Musgrove
Les Sutherland	Linda Collins	Lisa Neste
Lesley Adamson	Linda Dal Castello	Lisa Peck
Lesley Dalziel	Linda Fighera	Lisa Phelan
Lesley Fisher	Linda Graham	Lisa Press
Lesley James	Linda Hayes	Lisa Schmidt
Lesley Jeavons	Linda House	Lisa Thichenor
Lesley Kiker	Linda Lucas	Lisa Watson
Lesley Peell	Linda Mathew	Lisa Watson Nolan
Lesley Ritchie	Linda Muller	Lisa Wittman
Lesley Rosochodski	Linda Pemberton	Liv Bradfield
Lesley Walker	Linda Reilly	Liz Davis
Lesley Williams	Linda Simpson	Liz Dealey
Lesley Wojtowycz	Linda Smith	Liz Formby
Lesley-Karen Poulton	Linda Steeth	Liz Hackett
Leslie Richardson	Linda Stuart	Liz Miller
Lessa Thom	Linda Thomson	Liz Nicholas
Leung Yan Shiu	Linda Tubb	Liz Raab
Levi Grech	Linda Tubnor	Liz Tudor
Lewis Betts	Linda Turnley	Liz Uren
Lewis Mifsud	Linda Williams	Liz Wythe
Lexie Woodhill	Lindsay Barnes	Liza Bruce
Leyla Brookes	Lindsay Coates	Lizzie Duke
Lia Bronstijn	Lindsay Hooper	Lloyd Combe
Lia Sullivan	Lindsay Ross	Loddon Shire Council
Liam Arstal	Lindsay Smith	Logan Hegarty
Liam Hall	Lindy Butterick	Logan West
Liam Herbert	Lindy Coop	Lola Castaner
Liam Kingston	Lindy Schwarz	Loraine Fabb
Liam Palling	Lino Falzon	Lorellie Bow
Liam Schwuch	Linton Edwards	Lorenz Bond
Liana Moore	Lira Johnson	Lorenzo Nigli
Lianna Philip	Lisa Ann Kelly and Family	Loretta Gasparini
Libby Drew	Lisa Barrand	Loretta Keech
Libby Woodward and Steve Syer	Lisa Bilson	Loretta Orsini
Lida Roberts	Lisa Bouten	Loris Bonotto
Lidia D'Adam	Lisa Brand	Lorraine and Bill Ford
Lija Erkhova	Lisa Bull	Lorraine Bull
Lilah Murray	Lisa Byrne	Lorraine Callow
Lilie Paxton-White	Lisa Carboni	Lorraine Dixon
Lilli Bates-Fennessy	Lisa Cochrane	Lorraine Emmanuelli
Lillian Cully	Lisa Cunningham	Lorraine Gusman
Lillian McKenzie	Lisa Donald-Goudie	Loryn Babauskis
Lilou Calabuig	Lisa Gray	Lou Baxter
Lin Mak	Lisa Heller	Lou Dawson
Lin Pointer	Lisa Keddie	Louella Jackson
Lincoln Decker	Lisa Magnusson	Louella Scanu
Lincoln Riley	Lisa Meadows	Loui Donchos
Linda Cameron	Lisa Minchin	Louie Ojaimi
Linda Ceccatelli	Lisa Mordaunt	Louis Gauci

Louis Squillace	Luke Hall	Lynn Paul
Louise Bertoli	Luke Hobson	Lynn Small
Louise Cobham	Luke Insall	Lynn Trakell
Louise Connolly	Luke Klein	Lynne Billing
Louise Costa	Luke Mansfield	Lynne Brown
Louise Cousens	Luke McClelland	Lynne Donnelly
Louise Gardner	Luke Mevan	Lynne Hanratty
Louise Hrynyszyn	Luke Mifsud	Lynne Hestdal
Louise Jennison	Luke Milroy	Lynne Hynes
Louise Lovering	Luke Nelson	Lynne McAlister
Louise Nicholas	Luke Roberts	Lynne Redman
Louise Noorbergen	Luke Rolley	Lynne Yeardale
Louise Page	Luke Scicluna	Lynton Malley
Louise Puschner	Luke Silverback	Lyra Gattino
Louise Simpson	Luke Smeaton	Mac Stockdale
Louise Webb	Luke Warner	Maciej Kubicki
Louise Young	Luke Wierzbicki	Mackenzie Severns
Lozz Starseed	Luke Wilson	Madeleine Cruise
Luana Chieppo	Lulu Balbi	Madeleine Pitt
LuAnn Havers	Lyall Sheahan	Madeline Hance
Lucas Cooke	Lydia Kiteras	Madeline Pettet
Lucas Golby	Lyn Burton	Madison Meredith
Lucas Hamilton	Lyn Clarke	Mads Mackenzie
Lucas Lewit-Mendes	Lyn Hovey	Mae Ada
Lucas Moyes	Lyn Kitching	Magdalena Dudzik
Lucia Martiniano	Lyn Martin	Maggie Abbott
Lucia Morris	Lyn McMurdie	Maha Chaker
Lucia Smith	Lyn Payne	Mahmut Engin
Lucie Spencer	Lyn Sorrell	Mahsa Khatibi
Lucille Kennedy	Lyn Van Maanen	Mal Johnson
Lucinda Strong	Lynda Bristow	Malcolm Andison
Lucy McMahon	Lynda Gruessing	Malcolm Bayliss
Lucy Miller	Lynda Plummer	Malcolm Cameron
Lucy Thornton	Lynda Pope	Malcolm Dehne
Ludovic Laus	Lynda Wilson	Malcolm Dumesny
Luigi Buccheri	Lynda Yates	Malcolm Fisher
Luisa Tuazon	Lyndall Harrop	Malcolm Howarth
Luise Raeder	Lyndel Connolly	Malcolm Johnson
Luka Babic	Lyndell Green	Malcolm Lewis
Luke Ashcroft	Lynden Macgregor	Malcolm Macdougall
Luke Bellino	Lyndi Chapman	Malcolm Marshall
Luke Buchanan	Lynette Amaterstein	Malcolm McKinnon
Luke Davies	Lynette Curtis	Malcolm Metcher
Luke Dwyer	Lynette Eggleston	Malcolm Price
Luke Edson	Lynette Jones	Malcolm Rickarby
Luke Edwards	Lynette MacQueen	Malcolm Robins
Luke Evans	Lynette Ruby Jones	Malcolm Solomano
Luke Fenech	Lynn Browne	Malcolm Walsh
Luke Fisher	Lynn Gray	Mallacoota Gun Club
Luke Gatt	Lynn Hogan	Man Gajic

Mandy Goodwin	Margaret Murray	Mariam Kanj
Mandy Leeson	Margaret Noske	Marian Gedye
Mandy Whitlock	Margaret Phillips	Mariandel Rohde
Manfred Zabinskas OAM	Margaret Reid	Marianne Latham
Manuela Ferstl	Margaret Richardson	Marianne Montgomery
Marc Baptista	Margaret Slattery	Marianne Philips
Marc Crimmins	Margaret Sutherland	Marie Aaltonen
Marc Gatt	Margaret Wade	Marie Ann Phillips
Marc Smith	Margaret Walshaw	Marie Ashworth
Marc Szkwarek	Margaret Watson	Marie Attard
Marc Williams	Margaret White	Marie Casanova
Marceena Debrincat	Margaret Wright	Marie Dickenson
Marcel Chamblin	Marged Goode	Marie Humphries
Marcelle Scott	Margie Langtip	Marie Jones
Marcelle Stewart	Margit Rossi	Marie Kougllová
Marcia Riederer	Margo Kiesskalt	Marie Land
Marco Mallamaci	Margot Busch	Marie-Louise Campbell
Marco Murabito	Margot Capuano	Marie-Louise Drew
Marco Pagliaro	Margot Dunne	Marienne Mills
Marcus Agostinelli	Margot Francis	Marigold Hayler
Marcus Alonzo	Margot Harrison	Marilyn Berry
Marcus Bowen	Margot Lucas	Marilyn Capper
Marcus Fitzpatrick	Marguerite Cordell	Marilyn Copeland
Marcus Giannone	Margy Dowling	Marilyn Evenson
Maree Hooper	Mari Elvi	Marilyn Fletcher
Maree Mc	Mari Fitzpatrick	Marilyn Heggie
Maree McCabe	Mari Mennel-Bell	Marilyn Matye
Mareile Opitz	Maria Connell	Marilyn Williams
Marg Carroll	Maria Dadic	Marina Beradi
Marg Healy	Maria Ferraro	Marina Cox
Marg Jeffery	Maria Garbowski	Marina Mooney
Marg Shirley	Maria Gomez	Marina Ris
Margaret Bagalene	Maria Gotesman	Marinko Kovcic
Margaret Byron	Maria Holubecki	Mario Albanese
Margaret Canty	Maria Howard	Mario Calandro
Margaret Clarke	Maria Jawor	Mario Calleja
Margaret Coady	Maria Jesus Guillen	Mario Cavuoto
Margaret Coghlan	Maria Mercedes Lambies Hernandes	Mario DiNatale
Margaret Craig	Maria Morena	Mario Messina
Margaret Cullen	Maria Natoli	Mario Odak
Margaret Dwyer	Maria Paola Torti	Mario Salmetti
Margaret Fiebig	Maria Simitsis	Mario Sportelli
Margaret Gambold	Maria Sola	Marion Dawson
Margaret Golder	Maria Soupourzis	Marion Kavanagh
Margaret Grant	Maria van de Vusse	Marion Lustig
Margaret Hurley	Maria Zarpetea	Marion van Gemenen
Margaret Kelly	Mariah Dehnert	Marion Wasley
Margaret Kempf	Mariam Al Arab	Marisa Besteiro
Margaret MacDonald	Mariam Hamiche	Marissa Hewitt
Margaret McNeill		Marita Carter

Marita Gill	Mark Lewis	Marnie Hawson
Marita Hanigan	Mark Liersch	Marshall Kerry
Marita Jamieson	Mark Little	Marshall Younger
Marita Kennedy	Mark McIntyre	Martell Schmiedecken
Marita Rule	Mark Mifsud	Martha Poole
Marita Taylor	Mark Muhriz	Martin and Penny Potter
Marjo Chambers	Mark Newton	Martin Auldist
Marjorie Johnston	Mark Nicoll	Martin Bluml
Marjorie Smidt	Mark O'Grady	Martin Derby
Mark Beevis	Mark Parnis	Martin Drerup
Mark Berriman	Mark Ponton	Martin Exelby
Mark Bilney	Mark Prascevic	Martin Green
Mark Birkett	Mark Rankcom	Martin Howards
Mark Blomeley	Mark Regan	Martin Hunting
Mark Bollen	Mark Richardson	Martin Hurley
Mark Bolton	Mark Ripper	Martin Nikolov
Mark Borg	Mark Rodrigue	Martin Phillips
Mark Bruty	Mark Ruaro	Martin Reifinger
Mark Buhagiar	Mark Ryan	Martin Scerri
Mark Bulluss	Mark Rye	Martin Sciberras
Mark Campanella	Mark Schultz	Martin Wennagel
Mark Capraro	Mark Scoble	Martin Whatley
Mark Castaldo	Mark Shepherd	Martin Young
Mark Connelly	Mark Sherritt	Martina Colombo
Mark Coupe	Mark Spencer	Martine Brooks
Mark Cutler	Mark Stephens	Martine Holberton
Mark Daley	Mark Stevens	Martine Porret
Mark Davis	Mark Stevenson	Martine Spencer
Mark Day	Mark Stockdale	Martino Valastro
Mark Dober	Mark Summers	Mary Adam
Mark Douglas	Mark Swales	Mary Anderson
Mark Ellis	Mark Tarbett	Mary Ann Gourlay
Mark Fabris	Mark Vadas	Mary Anne Cutajar
Mark Ferguson	Mark Von Nagy	Mary Apostolopoulos
Mark Fermor	Mark Weekley	Mary Ayling
Mark Fox	Mark Wehner	Mary Camilleri
Mark Giese	Mark Weinberger	Mary Carter
Mark Gigliotti	Mark Weir	Mary Charalambous
Mark Gillono	Mark Wendelborn	Mary Dixon
Mark Glasser	Mark Wilson	Mary Dowling
Mark Gray	Mark Wloch	Mary Garoni
Mark Greening	Mark Wursthorn	Mary Goodall Tuohey
Mark Greenwell	Marko Dangubic	Mary Grech
Mark Hederman	Marlea Hutson	Mary Green
Mark Heydon	Marlene Douglas	Mary Hawkins
Mark Hocking	Marlene Millott	Mary Hayes
Mark Hollinrake	Marlene Nixon	Mary Madigan
Mark Howard	Marna Couve de Murville	Mary McLauchlan
Mark Konemann	Marnie Fitzsimons	Mary Meysztowicz
Mark Langley	Marnie Frost	Mary Papadopoulos

Mary Papaelia	Matt Turkovic	Matthew Wilson
Mary Rose	Matt Whitehead	Matthew Wright
Mary Souness Redacted	Matthew	Matthew Zerafa
Mary Wade	Matthew Aitken	Matthew Zervides
Maryann Hawthorn	Matthew Arthur	Maud Van Tol
MaryAnne Carroll	Matthew Ashton	Maureen Cooper
Maryanne Scott	Matthew Attard	Maureen Elkner
Maryborough Field Naturalists Club	Matthew Azzopardi	Maureen Gibbs
Maryetta Pinn	Matthew Baldwin	Maureen Hart
Marygrace Charlton	Matthew Boguske	Maureen Hayes
maryse vrambout	Matthew Bowler	Maureen Jackson
Mason Coomber	Matthew Bryan	Maureen Leverett
Mason Hergstrom	Matthew Burton	Maureen Schinck
Mason Little	Matthew Calvert	Maureen Vella
Mason Schoenberger-Smith	Matthew Cardigan	Maureen Wickham Kennedy
Mat Unwin	Matthew Clark	Maurene Conway
Mathew De Pretto	Matthew Cobb	Maurice Bexley
Mathew Gorman	Matthew Conti	Maurice Burns
Mathew Jolliffe	Matthew Costa	Maurice Clarke
Mathew Jones	Matthew Crozier	Maurice Mastroianni
Mathew Karamitanis	Matthew Debrincat	Maurice Matthews
Mathew Kelly	Matthew Forwood	Maurice O'Flynn
Mathew Mccrickard	Matthew Gray	Mauro Grassi
Mathew Nash	Matthew Green	Mauro Pasinati
Mathew Sandy	Matthew Hansen	Mauro Starc
Mathew Stevens	Matthew Heath	Mauro Totino
Mathew Warner	Matthew Hester	Max Beck
Mathew Wreford	Matthew Italia	Max Burrows
Mathewson Worth	Matthew Izzard	Max Greene
Matilda Bowra	Matthew Kessner	Max Jones
Matilda Hegarty	Matthew Lynch	Max Massaro
Matt Arnold	Matthew Majchrzak	Max Sargent
Matt Arthurson	Matthew Mostovac	Max Tandy
Matt Boydd	Matthew O'Neill	Maxim Balaganskiy
Matt Curry	Matthew Ottone	Maxine Clark
Matt Davis	Matthew Portelli	Maxine O'Brien
Matt Dowling	Matthew Rawson	Maxine Sando
Matt Gauci	Matthew Rigby	Maxwell Hall
Matt Goldman	Matthew Rogers	Maxwell Wellstead
Matt Grills	Matthew Rosa	Maya and Sarah
Matt Hazelman	Matthew Rota	Meagan Daley
Matt Hutchinson	Matthew Roughley	Meagan Dalton
Matt McCorriston	Matthew Scott	Meaghan Graham
Matt Morena	Matthew Slattery	Meaghan Hughes
Matt Parkinson	Matthew Sporton	Meeghan Auhl
Matt Payne	Matthew Tarbett	Meg Ashe
Matt Ruchel	Matthew Wall	Meg Butler
Matt Scicluna	Matthew Warner	Meg Butterfield
Matt Shingles	Matthew Warren	Meg Loveless
Matt Smith	Matthew Watson	Meg Odgers

Meg Polacsek	Melissa Williams	Michael Goulding
Meg Sattler	Melisse Clark	Michael Grech
Megan Ballinger	Mercedes Meikle-Stewart	Michael Gronow
Megan Chanom	Meredith Trevillion	Michael Grutzner
Megan DeFazio	Meredith Urie	Michael Haberman
Megan Foote	Merhi Moustafa	Michael Halls
Megan Heggie	Merina Van Roijen	Michael Hamilton
Megan McGowan	Merit Tabak	Michael Hegedus
Megan Pini	Merran Williams	Michael Hempel
Megan Reid	Merrilyn Serong	Michael Hepworth
Megan Rowsell	Merv Williamson	Michael Houlihan
Megan Scolyer-Gray	Metcalfe Darren	Michael James
Megan Smith	Mia Davies	Michael Karlik
Meghan Shaw	Mia Francisco	Michael Kenny
Meghan Street	Mica Edwards	Michael Kerkman
Mehmet Arif	Micah Garfinkel	Michael Ketelaar
Mel Ellis	Mich Schepers	Michael Langley
Mel Fraser	Michael Aboltins	Michael Lister
Mel Suppa	Michael Auty	Michael Manini
Mel Willard	Michael Bayliss	Michael Mann
Melanie Attard	Michael Bennett	Michael Mathews
Melanie Barsony	Michael Bonnici	Michael McCormick
Melanie Burge	Michael Bressan	Michael McKellar
Melanie Currie	Michael Brick	Michael McKernan
Melanie DiNatale	Michael Brincat	Michael McMahon
Melanie Dunbar	Michael Brown	Michael Mirabella
Melanie Fernandes	Michael Cannon	Michael Molinaro
Melanie Hanley	Michael Caruso	Michael Moloney
Melanie Ireland	Michael Clarkson	Michael Morgan
Melanie Morgan	Michael Clifton	Michael Mulqueeney
Melanie Pellow	Michael Condello	Michael Nammensma
Melbourne Duck Save	Michael Cook	Michael Nashar
Melinda Anderson	Michael Cunningham	Michael Nichols
Melinda Houston	Michael Dalgleish	Michael Noble
Melinda Little	Michael Demaio	Michael O'Sullivan
Melinda Molenda	Michael Dickson	Michael Pattinson
Melinda Naughton	Michael Doherty	Michael Podbury
Melinda Schultz	Michael Doukakis	Michael Reynolds
Melinda Vincent	Michael Ellis	Michael Richardson
Melissa Andersen	Michael Field	Michael Roberts
Melissa Ashcroft	Michael Fields	Michael Rowe
Melissa Black	Michael Filby	Michael Ryan
Melissa Cannon	Michael Forster	Michael Sanders
Melissa Fazlic	Michael Fowler	Michael Schofield
Melissa German	Michael Fuery	Michael Seager
Melissa Johnston	Michael Galatas	Michael Senior
Melissa Langfield	Michael Gatt	Michael Sill
Melissa Murphy	Michael Gibbs	Michael Simola
Melissa Staggs	Michael Gibson	Michael Smith
Melissa Steele	Michael Gorman	Michael Stambos

Michael Still	Michelle McKay	Mitch Easden
Michael Tannous	Michelle Nash	Mitch Hammet
Michael Taylor	Michelle Parker	Mitch Raay
Michael Thompson	Michelle Puglia	Mitch Whiting
Michael Thornley	Michelle Richards	Mitchel Fielding
Michael Thornton-Smith	Michelle Rowbotham	Mitchell Benton
Michael Turner	Michelle Ryan	Mitchell Dunnachie
Michael Tyndall	Michelle Tham	Mitchell Elliott
Michael Vanderheide	Michiele Leonardis	Mitchell Fenwick
Michael Vassallo	Mick Appleby	Mitchell Heyes
Michael Victor Meszaros	Mick Curcio	Mitchell Hobbs
Michael Vidale	Mick Fazlic	Mitchell Hodges
Michael Virgona	Mick Kealy	Mitchell Knox
Michael Wade	Mick Lacata	Mitchell Oates
Michael Warburton	Mick Lear	Modesto Calandrello
Michael Ward	Mick Moylan	Mohamed Al Arab
Michael Watson	Mick Thomas	Mohamed Kanj
Michael Wheller	Mick Valla	Mohammed Jowher
Michaela Clarkson	Mick Woodgate	Mohammed Moustafa
Michaela Cully-Hugill	Mickele Renna	Moir Steedman
Michaela Migdoll	Miguel Carneiro	Molly Daniels
Micheal Emanuelli	Miguel Muscat	Molly Dillon
Micheal Gulliver	Mikaela Crewes	Monica Cook
Michel Durand	Mikaela McCulloch	Monica Niewalda
Michele Abbey	Mikayla Craig	Monika Doeppen
Michele Finey	Mikayla Williams	Monika Marler
Michele Hosking	Mike Aylott	Monique Balaban
Michele Hurse	Mike Gotts	Monique Borg
Michele Iannello	Mike Kershaw	Monique Koelmeyer
Michele Layet	Mike Norman	Monisha Chand
Michele Normandin	Mike Rule	Moreno Franceschi
Michell Newton	Mike Shuttleworth	Morgan Banks
Michelle Atkinson	Mikhail Leikin	Morgan Devlin
Michelle Coillet	Mikhaila Hunter	Morgan Koegel
Michelle Collyer	Milena King	Morris Mascaro
Michelle Connolly	Miles Geldard	Morris Riddle
Michelle Cotterill	Milica Blagojevic	Morrissey James
Michelle Crilly	Milly Reid	Morwell Field & Game
Michelle Crosby	Milton Griffiths	Moses Brincat
Michelle Curtain	MIm Stewart	Mounir Al Arab
Michelle Donaldson	Mimi Rodriguez Litjens	Mounir Kanj
Michelle Gable	Mining & Energy Union - Victoria	Muhammet Aygun
Michelle Geiger	Mira Gittos	Murray Bajada
Michelle Gradwell	Miranda Brash-Brenan	Murray May
Michelle Holloway	Miranda Sherlock	Murray Sanders
Michelle Hayward	Miriam Orwin	Murray Sutton
Michelle Kenney	Mirjana Durovic	Murray Whitwell
Michelle Krueger	Miroslava Elfeky	Murtaza Millwala
Michelle Lee	Mish Mav	Myles Donaldson
Michelle Mabilia	Mitch Benders	myra berario

Myra Mcrae	Nathan Formosa	Neville Laffy
Nadai Kiteras	Nathan Kerr	Neville Power
Nadia Holmes	Nathan Komninoglou	Neville Stewart
Nadia Watson	Nathan McDonnell	Neville Thexton
Nadine Fardy	Nathan McManus	Neville Webster
Nadine McDonald	Nathan McSween	New Life for Animals Rehoming Centre
Nadine Speirs	Nathan Moylan	Ngan Ng
Najwa Amir	Nathan Myles Pearce	Nhan Le
Nalini Scarfe	Nathan Offer	Niall Finn
Nanette Ratcliffe	Nathan Spiteri	Niall McLaren
Naomi Bergersen	Nathan Thipthorp	Niamh Brown
Naomi O'Connor	Nathan Vale	Nic De Vito
Naomi Stewart	Nathan Vella	Nicholas Banham
Narelle Harbriht	Nathaniel McKay	Nicholas Bieber
Narelle Huxley	Natimuk Field & District and Game	Nicholas Bohan
Narelle Jolley	Natimuk Field & Game	Nicholas Brincat
Narelle O'Connor	Naveed Bhatti	Nicholas Charalambous
Narelle Rogers	Nazim El-bardouh	Nicholas Currell
Narelle Trippett	Nazzareno Vallelonga	Nicholas Dean
Nat White	Neal Billington	Nicholas Filippidis
Natali Cornell	Neal Smith	Nicholas Guerra
Natalie Brown	Neal Taylor	Nicholas Hand
Natalie Ciric	Neena Love	Nicholas Hulls
Natalie Duszynski	Neil Brammer	Nicholas Hume
Natalie Geddes	Neil Busby	Nicholas Isaacs
Natalie George	Neil Cann	Nicholas Jumara
Natalie Hayes	Neil De Coite	Nicholas Kazouris
Natalie Hrymakowski	Neil Gausson	Nicholas Koutsaliotis
Natalie Kopas	Neil Grigg	Nicholas Nagy
Natalie Ryan	Neil Hoffmann	Nicholas Roney
Natalie Rye	Neil Lett	Nicholas Swales
Natalie Utmar	Neil McBride	Nicholas Waters
Nataliya Butchart	Neil McFarlane	Nick Andrews
Natalya Vallelonga	Neil O'Brien	Nick Billington
Natasha Jankulovski	Neil Pascall	Nick Collins
Natasha Marty-Cripps	Neil Payne	Nick Galata
Natasha Verspeek	Neil Sinclair	Nick Grech
Natasha Zanolosso	Neil Smith	Nick Hargreaves
Nate Edge	Neil Stevems	Nick Hawkins
Nath Noel	Nell Thompson	Nick Manzo
Nathaly Jones	Nellie Muldoon	Nick Michalios
Nathan Beal	Nenand Andrejic	Nick Papaioannou
Nathan Birch	Neralie Thorp	Nick Rice
Nathan Butler	Nerida Fearnley-Gill	Nick Tarbett
Nathan Canning	Nerida Trask	Nick Valiontis
Nathan Coomber	Nev Brady	Nick Vassiliou
Nathan Coombs	Neville Andrews	Nick Zema
Nathan Craig	Neville Brearley	Nickolas Grech
Nathan Demasi	Neville Green	Nicky Zanen
Nathan Ellis	Neville Hayes	

Nico Courtney	Noel Willshire	Pamela Haw
Nicola Rae	Noela Sweeney	Pamela Leverett
Nicola Rushworth	Noelene Talbot	Pamela Mcdonald
Nicolas McKenzie	Nola Cranwell	Pamela Mitchell
Nicole Bath	Norie Neumark	Pamela Sutton-Legaud
Nicole Beasley	Norm Cobb	Pamela Tyrrell
Nicole Capotosto	Norm Elliott	Paola Catapano
Nicole Chapple	Norman Chant	Paola Torti
Nicole Elliott	Norman Nelson	Paolo Del Frate
Nicole Ford	Norman Quick	Paras Stavrianakos
Nicole Gerschman	Nunzio Mancuso	Parliamentary Budget Office
Nicole Irwin	Nunzio Spitaleri	Parris Alexander
Nicole Johansen	Olga Chapman	Pascale Vonghack
Nicole Jones	Oliver Butchart	Pasquale Maiolo
Nicole Linton	Oliver Darby	Pat Daley
Nicole McGregor	Oliver Parnaby	Pat Doyle
Nicole Murphy	Olivia Appleby	Pat du Plessis
Nicole Northrope	Olivia Charlton	Pat Giuliano
Nicole Page	Olivia Doyle	Pat Jones
Nicole Sandy	Olivia Gallus	Pat Morris
Nicole Tomazic-Spanger	Olivia Judd	Patricia Adam
Nicole Trantallis	Olivia Lay	Patricia Bleuel
Nicole Witham	Olivia Ong	Patricia Bond
Nicolle Deaves	Olivia Powell	Patricia Browne
Nigel Hugh Sinnott	Omar Halabi	Patricia Caldwell
Nigel Scullion	Omar Pivaral	Patricia Carden
Nigel Townley	Orlagh Doyle	Patricia Chacksfield
Nikki Grmusa	Orlita Santos	Patricia Coulton
Nikki Thompson	Otavio Figueiredo Carvalheira	Patricia Dangle
Nikki Wilson	Owen Kay	Patricia Davison
Nikolaos Tzaferis	Ozan Dogan	Patricia Denis
Nikolas Kovacs	Paddy Wray-Smith	Patricia Evans
Nikolce Trajkovski	Paige A Easden	Patricia Feast
Nina Gondos	Paige Easden	Patricia Galazzo
Nina Laitala	Paige Hawker	Patricia Hocking
Nina Storey	Pam Ahern	Patricia Hunt
Nirosha Hapuarachchige	Pam Connell	Patricia Ireland
Nizza Siano	Pam Evans	Patricia Kirby
Njck Manzo	Pam Fletcher	Patricia Reid
Noah Cassar	Pam Goble	Patricia Ryan
Noah McShanag-Munn	Pam Grills	Patricia Smith
Noah Rostan	Pam Hunter	Patrick Atherton
Noel Anderson	Pam Leaver	Patrick Baskett
Noel Asmussen	Pam Nulty	Patrick Boot
Noel Billing	Pam Price	Patrick Considine
Noel Butcher	Pam Treeby	Patrick Ellis
Noel Butterfield	Pam Turner	Patrick Hughes
Noel Cox	Pamela Bexley	Patrick Jones
Noel O'Connor	Pamela Dunlap	Patrick Kilkenny
Noel Ruedin	Pamela Gilbert	Patrick Mahon

Patrick Miller	Paul Jones	Pedram Akbari
Patrick Morrissey	Paul Kearsley	Pedro Petropoulos
Patrick Riley	Paul Kovzan	Penelope Bartlau
Patrick Sportelli	Paul Landmeter	Penelope Furphy
Patrick Torrens	Paul Lane	Penelope Klein
Patrick van den Corput	Paul Mahony	Penelope O'Connell
Patrick Sawyer	Paul Michael	Penn Russell
Patti Packer	Paul Minogue	Penny Carrington
Paul Aguirre	Paul Morrissey	Penny Carruthers
Paul Alberico	Paul Mudge	Penny Coulson
Paul Anderson	Paul Murphy	Penny Cumming
Paul Bartley	Paul O'Brien	Penny Edwards
Paul Beck	Paul O'Donovan	Penny Gillespie
Paul Bell	Paul Papadopoulos	Penny McMullin
Paul Bevan	Paul Phillips	Pertile Riccardo
Paul Biondo	Paul Prestney	Pet Medical Crisis Jennifer Hunt
Paul Blackborrow	Paul Rahman	PETA Australia
Paul Blake	Paul Reynolds	Peta Simao
Paul Boag	Paul Riddell	Pete Dacy
Paul Bonett	Paul Schilling	Pete Lancaster
Paul Boomert	Paul Sharp	Pete Muskens
Paul Brincat	Paul Sly	Peter & Julie Grant
Paul Brown	Paul Smith	Peter Adamson
Paul Burmeister	Paul Spitaleri	Peter and Andrea Hylands
Paul Butler	Paul Spiteri	Peter and Robyn Sandy
Paul Caine	Paul Stirton	Peter Anderson
Paul Carrick	Paul Swinton	Peter Andrews
Paul Cerretti	Paul Thermos	Peter Aspin
Paul Chick	Paul Thomas	Peter Atkinson
Paul Chivers	Paul Thompson	Peter Attard
Paul Clancey	Paul Tonson	Peter Austin
Paul Clifford	Paul Valastro	Peter Baldwin
Paul Cosaitis	Paul Weingott	Peter Baxter
Paul Davidson	Paul Whiley	Peter Bettens
Paul de Weerd	Paul Zervides	Peter Boulos
Paul Dobbs	Paula Boer	Peter Breuer
Paul Edwards	Paula Davidson	Peter Bullock
Paul Fairless	Paula James	Peter Burke
Paul Fantin	Paula Jane Reid	Peter Butterfield
Paul Foxworthy	Paula McGlashan	Peter Carter
Paul Galea	Paula Polson	Peter Clarence
Paul Gray	Paula Radecki	Peter Collins
Paul Green	Paula Rust	Peter Condron
Paul Griggs	Paula Thurston	Peter Cooper
Paul Harland	Pauline Borg	Peter Corica
Paul Hastings	Pauline Egan	Peter Crohan
Paul Haw	Pauline Holland	Peter D'Adam
Paul Hiscock	Pauline Hollywood	Peter Doley
Paul Jenkins	Pauline McLaughlin	Peter Duncan
Paul Jesse	Pauo Deering	Peter Eisen

Peter Elliott	Peter McKenzie	Peter Whatley
Peter Evans	Peter McManammy	Peter Whelan
Peter Falconer	Peter Mill	Peter Whykes
Peter Falkiner	Peter Mitchell	Peter Wilcock
Peter Farrar	Peter Moncrieff	Peter Wilmot
Peter Fava	Peter Mooney	Peter Wolfel
Peter Fenney	Peter Moretti	Peter Woods
Peter FitzGibbon	Peter Muscat	Peter Zahra
Peter Fitzpatrick	Peter Newell	petrushka Owen
Peter Fleming	Peter Newitt	Phat Ho
Peter Fraser	Peter O'Keefe	Phil Brown
Peter George	Peter Onley	Phil Defrancesco
Peter Gibson	Peter Paton	Phil Nicholson
Peter Gingell	Peter Paulka	Phil Rendell
Peter Gorgorinis	Peter Pendlebury	Phil Sansom
Peter Grealy	Peter Pini	Phil Smith
Peter Halastanis	Peter Preuss	Phil Walter
Peter Hall	Peter Price	Phil Watson
Peter Harkness	Peter Race	Phil Young
Peter Hart	Peter Read	Philip Blain
Peter Hawker	Peter Risk	Philip Cachia
Peter Hawking	Peter Robertson	Philip Dalrymple
Peter Heard	Peter Ronalds	Philip Farrugia
Peter Helms	Peter Rotiroti	Philip Pietsch
Peter Hercules	Peter Roupas	Philip Straw
Peter Hiskins	Peter Ruthven	Philip Taubert
Peter Hjorth	Peter Rylander	Philip Thompson
Peter Hodgson	Peter Sandy	Philip Walker
Peter Holden	Peter Scilini	Philip Whatley
Peter Illidge	Peter Sedgwick	Phillip Constantinou
Peter Jenkins	Peter siamelis	Phillip Dwyer
Peter Jurcevic	Peter Sims	Phillip Hawkes
Peter Kakridas	Peter Smith	Phillip Higgins
Peter Katsalas	Peter Spiteri	Phillip Hipwell
Peter Keck	Peter Steele	Phillip Hogan
Peter Kelly	Peter Stokes	Phillip Island Conservation Society
Peter Kinchington	Peter Stroud	Phillip Koufos
Peter Klikenny	Peter Taylor	Phillip Lancaster
Peter Kriesner	Peter Thamm	Phillip Linard
Peter Kurz	Peter Thermos	Phillip Long
Peter Latham	Peter Thompson	Phillip Oates
Peter Lauria	Peter Tzagarakis	Phillip Papaioannou
Peter Lee	Peter Tzalaris	Phillip Stevens
Peter Lemarrec	Peter Van Haeff	Phillip Thompson
Peter Lindsay	Peter Vaughan	Phillip Tuffen
Peter Lucas	Peter Warner	Phillippa Hilsden
Peter Mannaert	Peter Watkins	Phoebe Pomazan
Peter Markey	Peter Watson	Phoebe Song
Peter Marshall	Peter Wayne Watson	Phyl Westhorpe
Peter McCormick	Peter Westhorpe	Pia Engwandt

Pia Karaspuro	Rachel Peat	Raymond Goodwin
Pie Wee	Rachel Potter	Raymond Stephens
Piera Larocca Warke	Rachel Sussman	Raymond White
Pierantonio Tosato	Rachel Unicom	Rebecca Andersen
Pierre Du Preez	Rachel Young	Rebecca Cameron
Pietro Galvan	Radka Shaw	Rebecca Cooper
Pili Ortega	Rae Cecil	Rebecca Cornish
Pip Masters	Rae Le Serve	Rebecca Ford
Pippa Gallus	Rae Mitchelson	Rebecca Gerber
Plumbing and Pipe Trades Employee Union	Rael Kuperholz	Rebecca Holland
Polly Bastow	Raeleene Gregory	Rebecca Kirley
Polly Watkins	Raelene Bake	Rebecca Ramsay
Pouya Bagheri	Raf Dimachki	Rebecca Reynolds
Pranil Kooverjee	Rafael Fabris	Rebecca Sargeant
Price Dalrymple	Rafael Giurleo	Rebecca Treloar
Priscilla Luvara	Rafael Gomez	Rebekah Wood
Priscilla Martinez	Rafael Martinez	Red Box Wildlife Shelter
Priya Caldera	Raffael Laino	Reece Atherton
Professor Don Mc Robert JP	Raffaele Scarfo	Reece Collins
Professor Linda Kouvaras	Rafic Dimachki	Reece Ellul
Professor Michael Phillips	Rahmon Rivero	Reece Murray
Prospectors and Miners Association	Rajdeep Deo	Reece Shaw
Protect our Native Ducks	Rajni Kurichh	Reece Turner
Pru Ervin	Ralf Thesing	Rees Lawrence
Prue O'Mara	Rallou Lubitz	Regan Johnston
Qaiser Nazir	Ralph Blake	Regina Mühlegg
Quentin Dresser	Ralph Giuliano	Regional Victorians Opposed to Duck Shooting
Quin Nowak	Ralph Graham	Remo Moretti
Rachael Bennett	Ralph Lester	Rena Gaborov
Rachael Blyth	Ram Eskeif	Renáta Varga
Rachael Brown	Ramona Blankinship	Renato Pagliarosi
Rachael Germano	Ramsey Russell	Renay Drendel-Arthur
Rachael Hollander	Rana Halwani	Renee Blight-Clark
Rachael Laver	Randall Brouillette	Renee Blundell
Rachael Locky	Ravi Pannell	Renee Ludekens
Rachael Neville	Ray Collins	Renee Mattson
Rachael O'Neill	Ray Grainger	Renee Maxwell
Rachael Schinck	Ray Grech	Renee Mead
Rachael Zahra	Ray Haas	Renée Passalacqua
Rachel Bowen	Ray Hanna	Reno Scriha
Rachel Busbridge	Ray Hilder	Reuben Patience
Rachel Desumma	ray lowry	Rex Breen
Rachel Gladman	Ray Niven	Rex Collyer
Rachel Jackson	Ray Pastoors	Rex Watson
Rachel Kidman	Ray Weeks	Rex Willmer
Rachel Kipman	Raylene Kee	Rhea Bonnici
Rachel Morgan	Raylene Mckenzie	Rheya Linden
Rachel Murphy	Raymond Agg	Rhian Davies
	Raymond Colban	Rhiannon Armstrong
	Raymond Farnsworth	

Rhonda Chapman	Rick Micallef	Robert Baker
Rhonda Green	Rick Murray	Robert Baranello
Rhonda Humphries	Rick O'Neill	Robert Bertoli
Rhonda Ivanisevic	Rick Price	Robert Brekalo
Rhonda Oliver	Rick Rossiter	Robert Brewer
Rhonda Sutton	Ricky Arvidson	Robert Briggs
Rhys Eames	Ricky Cairns	Robert Cachia
Rhys Hendrickson	Ricky Carvill	Robert Carter
Ric Carter	Ricky Crawford	Robert Caruana
Rica Garcia	Rigel Best	Robert Cauchi
Ricardo Simao	Rigo Perrella	Robert Ceravolo
Riccardo Galvan	Rikki Bandeko	Robert Chapman
Richard Arnold	Rikki Nicholson	Robert Clark
Richard Aspland	Riley Cox	Robert Clements
Richard Bakker	Rina Sunar	Robert Cobb
Richard Barnes	Rino Minichiello	Robert Cumming
Richard Bartolo	Rippley Ryan	Robert Da Ros
Richard Bell	Rita Camilleri	Robert Danieli
Richard Boland	Rita Grech	Robert Dimeski
Richard Bonavia	Rita Harrington	Robert Durbridge
Richard Branton	Rita O'Sullivan	Robert Ferris
Richard Brown	Rita Thio	Robert Fickling
Richard Chan	Ritchie Donald	Robert Foody
Richard Clarke	Ritchie Powell	Robert Fuller
Richard Doery	Rivers Borg	Robert Geddes
Richard Emmerson	Ro Bailey	Robert Graner
Richard Foster	Ro Bell	Robert Gully
Richard Gordon	Ro Marks	Robert Gusman
Richard Hatfield	Roasario Caravello	Robert Hart
Richard Holz	Rob Craig	Robert Heritage
Richard Hughes	Rob Crawford	Robert Hocking
Richard Karl	Rob Demasi	Robert Hudson
Richard Kite	Rob Dexter	Robert Jackett
Richard Lines	Rob Donovan	Robert Jeffs
Richard Mann	Rob Giblett	Robert Jenkins
Richard Norris	Rob Granter	Robert Kedge
Richard Oppenheimer	Rob Gray	Robert Kee
Richard Purcell	Rob Hobbs	Robert Kohne
Richard Reina	Rob Jones	Robert Krizman
Richard Riseley Maurice	Rob Mckay	Robert La Ferla
Richard Sharman	Rob O'Connell	Robert Laforanara
Richard Truter	Rob Prior	Robert Lansell
Richard Turner	Rob Shepherd	Robert Lopatecki
Richard Tuttleby	Rob Signorini	Robert Love
Richard Woolley	Rob Wallace	Robert Luck
Rick Bardis	Rob Sheehan	Robert Lyndon
Rick Carter	Robbie Prince	Robert Marston
Rick Henshall	Robbyn Strickland	Robert Mcburnie
Rick Johnston	Robert Adamson	Robert Murray
Rick Lovell	Robert Algeri	Robert Neave

Robert Nichele	Robyn Miotello	Rohan McCarthy
Robert Officer	Robyn Payne	Rohan Musa
Robert Passarin	Robyn Powell	Rohan Neave
Robert Pugh	Robyn Smith	Rohan Oliver
Robert Quinsee	Robyn Tyson	Rohan Parker
Robert Reynolds	Robynne Burchell	Rohan Pettit
Robert Ricketts	Rocco Di Vitto	Rohan Todd
Robert Riedy	Rocco Maglio	Rohanna Mohr
Robert Rizzo	Rocco Papaluca	Roland Rohm
Robert Sandlant	Rochelle Jupp	Roland Stott
Robert Sawyer	Rocky Furnell	Roland Wade
Robert Scholes	Rocky Speranza	Rolene London
Robert Schwuch	Rod Bell	Rolf Caruso
Robert Scott	Rod Berger	Roma Cavanagh
Robert Scull	Rod Corin	Roman Headifen
Robert Stephen	Rod Dean	Romeo Disimone
Robert Stephenson	Rod Ferrigno	Romina Diaz
Robert Sulzberger	Rod Fry	Ron Anstis
Robert Taylor	Rod Pratt	Ron Barrett
Robert Templer	Rod Sewell	Ron Bell
Robert Treble	Rod Shaw	Ron Berliner
Robert van de Groenekan	Rod Styles	Ron Crozier
Robert West	Rod Tetlow	Ron Geurts
Robert Whalley	Rod Watt	Ron Kopamica
Roberto D'Andrea	Rodd Flower	Ron Raab OAM
Robin Dzedins	Roderic Morgan	Ron Rahan
Robin Green	Roderick Carmichael	Ron Wilson
Robin John Murdoch	Roderick Geard	Ronald McColl
Robin Lao	Rodney Armstrong	Ronald Todd
Robin Madill	Rodney Dal Pozzo	Ronald Winther
Robin Ramsay	Rodney Howard	Ronan Capraro
Robin Thompson	Rodney Manning	Ronda Conway
Robin Tullett	Rodney Martin	Ronda Watts
Robin Zakharov	Rodney Place	Roni Emkies
Robyn Armstrong	Rodney Stares	Ronnie Clegghorn
Robyn Bedford	Rodney Trigg	Ronnie Harrington
Robyn Burfurd	Roger Ada	Ronnie Mifsud
Robyn Butler	Roger Barbetti	Rony Brida
Robyn Clark	Roger Brenton	Rory Knight
Robyn Cochrane	Roger Frair	Ros Cole
Robyn Curtain	Roger Kolenaty	Ros Farrugia
Robyn Dance	Roger Meade	Rosa Morris
Robyn Fitzgerald	Roger Needham	Rosa Morstyn
Robyn Fynmore	Roger Phelps	Rosa Prol-Ledesma
Robyn Gerrard	Roger Sambell	Rosalie Betts
Robyn Hooper	Roger Stout	Rosalie Crocker
Robyn Hyde	Roger Thomas	Rosalie Dean
Robyn Kirby	Roger Van Roosmalen	Rosalie Grutt
Robyn Lee	Rohan Atherton	Rosalie Walle
Robyn McTavish	Rohan Evans	Rosalind Bradey

Rosalind Crisp	Rudi Clarke	Ryan Curran
Rosalind Hustler	Rudy Horvat	Ryan Demarco
Rosario Caravello	Rudy Hose	Ryan Dickson
Rose Benstead	Rueben Steen	Ryan Ep
Rose De La Cruz	Rugby McLean	Ryan Hofmann
Rose O'Neill	Runanset Kennels English Setters for the Field	Ryan Massaro
Rose Wedler	Rupert Macgregor	Ryan Mckibbin
Roselea Miller	Rupert Tieman	Ryan Moss
Rosemarie Robb	Rupert Veitch	Ryan O'Mahony
Rosemary Biggins	Rushworth Field and Game	Ryan Pedley
Rosemary Kidd	Russ Peel	Ryan Perkins
Rosemary Lavin	Russel Barnes	Ryan Pickles
Rosemary Nilsson	Russell Armstrong	Ryley Patterson
Rosemary Race	Russell Bate OAM	Rylie Evers
Rosie Jacka	Russell Bechaz	S G Wasfi
Rosie Suter	Russell Breguet	S Green
Roslyn Gibson	Russell Charters	S Morris
Roslyn Wathen	Russell Cockman	Saa Kovacevic
Roslynn Bolton	Russell Edwards	Sabah Jbara
Ross Alford	Russell Foulsham	Sabina Crawley
Ross Auchetti	Russell Goodwin	Sabina Weilbier
Ross Bigelow	Russell Hutchins	Sabine Widjaja
Ross Bird	Russell Jones	Sabrina Nizeti
Ross Clancy	Russell Leitch-Smith	Sade Rose
Ross Cockle	Russell Moyes	Safari Club International
Ross Condello	Russell Murdoch	Saffron Bennington
Ross Dwyer	Russell Rowley	Said Merheb
Ross Garlick	Russell Taylor	Sal Briganti
Ross Herman	Russell Thomas	Salaiman Ehab
Ross Hogan	Russell Whitehead	Sale Field & Game Association
Ross Izzard	Russell Williams	Sale Field and Game Club
Ross Lawrence	Ruth Abbey	Sally Abbott Smith
Ross McIntyre	Ruth Ames	Sally Allen
Ross Middleton	Ruth Arnone	Sally Balfort
Ross Ormond	Ruth Barrett	Sally Bewsher
Ross Taylor	Ruth Hodgson	Sally Doyle
Ross Threlfall	Ruth Jenkins	Sally Jandric
Ross Tipping	Ruth Minifie	Sally Kellett
Rossana Calò	Ruth Parramore	Sally Laffy
Rowena Groundwater	Ruth Sutherland	Sally Maish
Roxanne Tipping	Ruth Tai	Sally Melzer
Roy Caruso	Ruth Weston	Sally Michael
Roy OHagan	Ruth Wilson	Sally Norden
Roy Skelton	Ruwani Ekanayake	Sally Perkins
Royce Wojtowycz	Ryan Athurson	Sally Rodgers
Roz Germov	Ryan Brown	Sally Stafferton
RSPCA Victoria	Ryan Burke	Sally Thomason
Ruairidh Jamieson	Ryan Clancy	Sally Warmington
Ruby Leppik	Ryan Cooke	Sally-Anne Hains
Ruby Rose		Salv Spitaleri

Salvatore Cullia	Samuel Wood	Sarah Marks
Salvatore Daniel Murabito	Sandra Betts	Sarah McColl
Salvatore Murabito	Sandra Bortoli	Sarah McGee
Salvatore Torre	Sandra Couch	Sarah McNabb
Sam Bodinnar	Sandra Ferns	Sarah Milford
Sam Coles	Sandra Flint	Sarah Otterburn
Sam Collins	Sandra Foster	Sarah Samosir
Sam Day	Sandra Gangemi	Sarah Smith
Sam Fitzpatrick	Sandra Green	Sarah Walker
Sam Gibson	Sandra Hess	Sarah Yeomans
Sam Gilliver	Sandra Kelly	Sarvin Conner
Sam Greene	Sandra Marley	Sascha Burakowski
Sam Heyes	Sandra Materi	Sasha Cust
Sam Jolly	Sandra Myers	Saskia Lemerande
Sam Mur	Sandra Shrubbs	Satvir Singh
Sam Robinson	Sandra Thwaites	Savas Antoniou
Sam Rocco	Sandra Vertigan	Save Sydney's Koalas
Sam Stiling	Sandrine Laurens	Savvas Stephanou
Sam Turner	Sandy Cameron	Scar Cook
Sam Vallelonga	Sandy Campbell	Scarlet Kohane
Sam Wilson	Sandy Fernee	Scott Anderson
Sam Withoos	Sandy Goncarovs	Scott Bain
Sam Zervides	Sandy Lincoln	Scott Boucher
Samantha Ashmore	Santo Condello	Scott Clemens
Samantha Bentincontri	Sara Lagonigro	Scott Cumming
Samantha Cohen	Sarah Barnes	Scott Fesmire
Samantha Crowe	Sarah Bartlett	Scott Gibney
Samantha Dimachki	Sarah Beaumont	Scott Grimes
Samantha Fisher	Sarah Bongiovanni	Scott Gulbin
Samantha Heyes	Sarah Branton	Scott Hayes
Samantha Keir	Sarah Briggs	Scott Henderson
Samantha Kent	Sarah Brincat	Scott Jones
Samantha Kurikawa	Sarah Brown	Scott Malone
Samantha Miller	Sarah Browne	Scott McDonald
Samantha Moile	Sarah Byrnes	Scott McRae
Samantha Wilson	Sarah Crowley	Scott O'Donnell
Samara Williams	Sarah Davey	Scott Rae
Samer Skeif	Sarah Davis	Scott Richardson
Sami El Moslemani	Sarah Fitzgerald	Scott Steensma
Sammy Petrevski	Sarah Forster	Scott Templeton
Samual Gulino	Sarah Gargiulo	Scott Tweed
Samuel Grew	Sarah Glass	Scott Woodward
Samuel Jensen	Sarah Hawkins	Scott Wright
Samuel Johnson	Sarah Jahans	Scottie Charalambous
Samuel Jones	Sarah Johnson	Seamus Macdonald
Samuel Maroulis	Sarah Jones	Sean Doherty
Samuel Maslen	Sarah Kennedy	Sean Farmer
Samuel Prentice	Sarah King	Sean Frazer
Samuel Sweeny	Sarah Kortschak	Sean Heffernan
Samuel Tyler	Sarah Mabin	Sean Komninos

Sean Logue	Shannon O'Connor	Sheri Williams
Seán Marsh	Shannon Stanger	Sheridan Heaton
Sean Morris	Shanon Bell	Sherrill Carta
Sean Slattery	Sharlene Brimley	Sheryl Teese
Sebastian Folloni	Sharon Bondy	Sheryl Vicino
Sebastian Seager	Sharon Clerke	Shez Gay
Secilia Mechin	Sharon Ferguson	Shini Pararajasingham
Selin Rahman	Sharon Fish	Shirley Andersson
Sentient	Sharon Ganter	Shirley Birney
Serafino Sacchetta	Sharon Jennings	Shirley Conway
Serap Istekli	Sharon Kuper	Shirley Corlett
Sereen Wehbe	Sharon Louisa Hampton	Shirley Cowling
Sergio Bonotto	Sharon McLay	Shirley Deviesseux
Sergio Fazzari	Sharon Monk	Shirley Diver
Sergiy Korovin	Sharon Oppenheimer	Shirley Mills
Sevag Ipradjian	Sharon Pedder	Shirley Stannard
Sevelin Asali	Sharon Phillips	Shohre Mansouri Jajae
Seymour Field & Game	Sharon Ray	Shona Cornwall
Shad Denmen	Sharon Redman	Shona Thornton
Shae Nechwatal	Sharon Reid	Shooting Industry Foundation of Australia
Shae Salmon	Sharon Rigby	Shooting Sports Council of Victoria
Shae Wilson	Sharon Rodziewicz	Sian Gautier
Shan Bramley	Sharon Scull	Sidney Matthews
Shan Shnookal	Sharon Thompson	Siegfried Tuenker
Shanan Baker	Sharon Twining	Siena Callander
Shane Allen	Sharon Williams	Sienna Stevens
Shane Bacon	Sharon Wolstenholme	Sila Kunoo
Shane Bailey	Sharyn Cornthwaite	Sima Barokas
Shane Bartlett	Shaun Adams	Simeon Zisimopoulos
Shane Elders	Shaun Altmann	Simon Abernethy
Shane Emond	Shaun Cook	Simon Agius
Shane Farley	Shaun Galea	Simon Bird
Shane Foley	Shaun Gray	Simon Bolding
Shane Goodall	Shaun Green	Simon Cammell
Shane Heenan	Shaun Jeffrey	Simon Dillon
Shane Johns	Shaun Mcgauran	Simon Hore
Shane Kennedy	Shaun Smith	Simon Joachim Sindl
Shane Molloy	Shaun Spencer	Simon Kirton
Shane O'Callaghan	Shaun Thomson	Simon Little
Shane Osborne	Shaun Vercoe	Simon Moussa
Shane Pianto	Shawn Panton	Simon Orszaczki
Shane Sims	Shawna McLarty	Simon Ortega
Shane Summers	Shay Mottrom	Simon Phillips
Shane Thornton	Shayne Anscombe	Simon Plausinaitis
Shaneen Smith	Sheila Boulton	Simon Pradhan
Shani Vetter	Sheila Hotmer	Simon Rowell
Shannon Brand	Shelley Sullivan	Simon Smith
Shannon Carlson	Shelly Kent	Simon Solohub
Shannon Hederman	Sheree Fitzgerald	Simon Stroud
Shannon McMillan	Sheree Wierzbicki	

Simon Taranek	Stanley Barker	Stephen Rose
Simon Verdon	Stanley Fielder	Stephen Taylor
Simon Wendt	Stefan Zervides	Stephen Toumbourou
Simon Williamson	Stefan Zito	Stephen Vider
Simone Arnott	Stella Bartlett	Stephen Vines
Simone Booth	stella coleiro	Stephen Wallis
Simone Grant	Stella Severs	Stephen Wride
Simone Kistler	Steph Green	Stephen Young
Simone Knott	Steph Vulgaris	Steve Asmussen
Simoun Hakim	Stephan Warner	Steve Austin
Siobhan Foster	Stephanie Adler	Steve Bacon
Siobhan McCarthy	Stephanie Goulding	Steve Blogg
Siobhán O'Shea	Stephanie Jeffery	Steve Burke
Siriluck Ovenden	Stephanie Jones	Steve Chenery
Siva Reddy	Stephanie Lim	Steve Dreher
Sjakon Tahija	Stéphanie Rossenu	Steve Flounders
Sofia Cairns	Stephanie Watt	Steve Garcia
Sofia Frew	Stephanie Wright	Steve Garlick
Solana Payne	Stephen Alan	Steve Hancock
Sonia Stewart	Stephen Benetti	Steve Hunter
Sonja Ristevski	Stephen Bloomfield	Steve Irvin
Sonya Chan	Stephen Cooke	Steve Jabke
Sonya Louise Vanderhorst	Stephen Daldy	Steve Kach
Sonya McClelland	Stephen David	Steve Lohr
Soo Balbi	Stephen Debrincat	Steve Madeley
Soo yeon Hodgman	Stephen Fantin	Steve Mcrabb
Sophie Davidson	Stephen Foster	Steve Meacher
Sophie Galatas	Stephen Gill	Steve Oneil
Sophie Leete	Stephen Goodall	Steve Pellegrino
Sophie Lloyd	Stephen Haberman	Steve Petyerak
Sophie Lu	Stephen Hall	Steve Pilcher
Sophie Paterson	Stephen Hill	Steve Rogers
Sophie Solway	Stephen Howard	Steve Stepic
Sophie Watt	Stephen Hunt	Steven Atkinson
Sophie Wilcher	Stephen Hunter	Steven Bates
Soulla Skoumbri	Stephen Jones	Steven Berry
South Aussies for Animals Inc (SAFA)	Stephen Jozsa	Steven Biggs
Spiro Aretoulis	Stephen Kirby	Steven Box
Spiros Foscolos	Stephen Lancater	Steven Budich
Sporting Shooters Association Australia (Victoria)	Stephen Lees	Steven Busana
Sri Durga Karthik	Stephen Leith	Steven Carr
St Arnaud Field Naturalist Club	Stephen Lucas	Steven Ciberlin
Stace Lee	Stephen Luck	Steven Cleary
Stacey Banks	Stephen Lyne	Steven Coates
Stacey Larson	Stephen Madeley	Steven Cotterell
Stacy Whitehorse	Stephen Malkin	Steven Day
Stan Luxford	Stephen Martinich	Steven Dimitrakellis
Stan Wierzbicki	Stephen Mcquinn	Steven Gawley
	Stephen Melia	Steven Giordimaina
	Stephen Nicholls	Steven Grima

Steven Harris	Sue Crowley	Susan Jenkins
Steven Humphreys	Sue Dickson	Susan Koci
Steven Johnson	Sue Dietrich	Susan Kopittke
Steven Kayler-Thomson	Sue Goldberg	Susan Lester
Steven Knapp	Sue Goodman	Susan Liddicut
Steven Lane	Sue Grad	Susan Linley
Steven Mikkelsen	Sue Hamilton	Susan McMahon
Steven Morrissey	Sue Harris	Susan Metcalfe
Steven Muscat	Sue Hodges	Susan Meyer
Steven O'Connor	Sue Horsley	Susan Musil
Steven Pack	Sue Jellett	Susan Myers
Steven Puopolo	Sue Kelly	Susan O'Brien
Steven Rice	Sue Litchfield	Susan Parr
Steven Rypalski	Sue Matheson	Susan Rees
Steven Szrenko	Sue McFadyen	Susan Ridoutt
Steven Trembath	Sue Mckinnon	Susan Slode-Mel
Steven Tucker	Sue Nightingale	Susan Sorensen
Steven Val Barry	Sue Pennicuik	Susan Townsend
Steven Wade	Sue Richardson	Susan Truter
Steven Watts	Sue Saliba	Susan Viergever
Steven Zammit	Sue Schofield	Susan West
Stewart Campbell	Sue Tardif	Susan Williams
Stewart Cook	Sue Todd	Susana Ball
Stewart Ellicott	Sue Tomat	Susann Vetma
Stewart McEwen	Sue Tweg	Susanna Moore
Stewart Webster	Sue Wans	Susanne Kerr
Stirling Clarke	Sue White	Susie Asmussen
Stu Hazelman	Sue Wilkinson	Susie Hearder
Stuart Allen	Suellen Lee	Sussan Condello
Stuart Bowd	Sunil Hussain	Suying Aw
Stuart Chan	Suramya Rajapakse	Suzanne Burns
Stuart Coggin	Susan Alexander	Suzanne Hopkins
Stuart Collins	Susan Arnold	Suzanne Jordan
Stuart Ford	Susan Ashman	Suzanne Law
Stuart French	Susan Bailey	Suzanne McCarthy
Stuart Gillahan	Susan Barber	Suzanne Shirley
Stuart Gray	Susan Begg	Suzanne Teese
Stuart Ikin	Susan Broman	Suzanne Todd
Stuart Inchley	Susan Cahir	Suzanne Trist
Stuart Love	Susan Carey	Suzanne Unthank
Stuart McDonell	Susan Clarke	Suzanne Van Den Broeck
Stuart Mckay	Susan Coward	Suzanne Vigenser
Stuart Perera	Susan Dennehy	Suzette Miller
Stylianios Stephanou	Susan Gleeson	Suzi Beaton
Subramaniam Sivasubramaniam	Susan Gerner	Suzi Ross
Sudath Herath	Susan Hardy	Suzie Don Leonard
Sue Behrent	Susan Hayman	Suzie Faulkner
Sue Bourke-latham	Susan Henshall	Suzy Lyons
Sue Carolane	Susan Howard	Suzy Markovski
Sue Crickmore	Susan Howells	Suzy Williams

Sven Sorge	Tayla Knight	Association
Swathy John	Taylah Locantro	Thea Allan
Syd Voogt	Taylor Bonavia	Thelma Law
Sylvana Arguello	Taylor Theggie	Themis George
Sylvia Cooper	Team OzHunting	Thenuk
Sylvia Slod	Ted Hume	Theo Argyropoulos
Sylvia van der Peet	Teegan McCloy	Theo Banabakis
Sylvie Constantine	Tegan Dixon	Theo Herring
Sylvie MacFarland	Telwater	Theo Miteokas
Tabitha Wilmot	Tenille Thorburn	Theo Sarris
Tahni	Terance Welch	Theo Zwetsloot
Taksin Suksanit	Terence Breen	Theodoros Aslanoglou
Talia Madigan	Terence Frawley	Theresa Bradley
Tamara Albers	Terence Scott	Theresa DiTullio
Tamara Drury	Teresa Castley	Theresa Vanderwyk
Tamara Griffiths	Teresa Spitaleri	Therese Carew
Tamara Schermer	Teresa Vokes	Therese Grinter
Tamara Veltre	Teresa Walpole	Therese Maskell
Tameka Murrain	Terrell Haley	Therese Schram
Tamika Wan	Terrence Armstrong	Therese Tippet
Tammo Frisch	Terrence Masterson	Therese Walton
Tammy Bevis	Terri Agostino	Thomas Altmann
Tammy Donovan	Terri Henderson	Thomas Bilney
Tammy Sherar	Terri Howe	Thomas Bishop
Tamsin Ramone	Terry Boucher	Thomas Butt
Taneale Hrymakowski	Terry Butterworth	Thomas Chick
Tania Begg	Terry Daskaleros	Thomas Cornish
Tania Davis	Terry Duff	Thomas Hardman
Tania Farrugia	Terry Frawley	Thomas Hepburn
Tania Reid	Terry Frewin	Thomas Hobbs
Tania Russell	Terry Grant	Thomas Ingram
Tania Sinni	Terry Ingram	Thomas Jones
Tania Staples	Terry Jefferies	Thomas Kevin Strang
Tanja Rieger	Terry Martin	Thomas Lett
Tanya Clark	Terry O'Brien	Thomas May
Tanya Johnson	Terry Preston	Thomas Mayne
Tanya Kelly	Terry Ramadge	Thomas McDonald
Tanya Meldrum	Terry Saliba	Thomas Nunan
Tanya Pejnovic	Terry Scott	Thomas Odak
Tanya Reidy	Tessa Keslake	Thomas Osment
Tanya Watts	Tessa Killingbeck	Thomas Paterson
Tanya Williams	Tessa Lynch	Thomas Paul
Tara Barker	Tessa Raeburn-Keslake	Thomas Prestney
Tara Patwardhan	Tessa Rubinstein	Thomas Scerri
Tara Poole	Thambawitage Gunasekara	Thomas Shaw
Tariq Mohammed	Thang Van La	Thomas Smith
Taslima Rahman	The Australia Institute	Thomas Tsolakakis
Tasmin Miles	The Australian Veterinary Association	Thomas Tweedie
Tatiana Chashchina	The Victorian Duck Hunters	Thomas Young
Taya Paterson		Thomas Zahra

Thu Thao Truong	Tom Cran	Tracy Birrell
Thusyanthi Jayasinghe	Tom Curphey	Tracy Cleaves
Thuy Tran	Tom Day	Tracy Harris
Tiana Iuculano	Tom Dowd	Tracy King
Tiani Farrugia	Tom Kordos	Tracy Muskett
Tiffany Slater	Tom Lawrey	Tracy Wooding
Tim Anderson	Tom Manifold	Tracy Young
Tim Bowman	Tom McRae	Tracy-ann Layton
Tim Brown	Tom Phillips	Transport Worker's Union
Tim DiGenova	Tom Porter	Traudy Glasencnik
Tim Downes	Tom Russell	Travis Greig
Tim Edgerton	Tom Slattery	Travis Lewis
Tim Farrell	Tom Tweed	Travis Parsons
Tim Ferguson	Tom Wallace-Hodgkin	Travis Smith
Tim Finnegan	Tommi Gargiulo	Travis Southall
Tim Hawthorne	Tommy Gibson	Travis Sutherland
Tim Hensler	Tommy Pepe	Travis Twentyman
Tim Hodges	Toni Cooper	Trent Ashcroft
Tim Mathews	Toni Kilsby	Trent Leen
Tim Minter	Toni Skinner	Trent Malcolm
Tim Raine	Tony Condello	Trent Perry
Tim Ross	Tony Connell	Trent Prosser
Tim Stephens	Tony Corso	Trent Schulze
Tim Thomas	Tony Delaney	Trent West
Tim Vasudeva	Tony Evans	Trev Linguey
Timothy Cavill	Tony Fletcher	Trevor Atherton
Timothy Cutrona	Tony Hill	Trevor Barnett
Timothy Gribble	Tony Ibrahim	Trevor Blatchford
Timothy Hurley	Tony Leen	Trevor Bolton
Timothy Randall	Tony Lindsay	Trevor Carr
Timothy Robinson	Tony Maiolo	Trevor Clark
Timothy Straw	Tony Ortego	Trevor Cotterell
Tina Agostinelli	Tony Puopolo	Trevor Dean
Tina Arnold	Tony Ryan	Trevor Dennis
Tino Dal Negro	Tony Sorgiovanni	Trevor Dumesny
Tissa Wijeratne	Tonya Kolceg	Trevor Hawking
Tiz Zucchet	Tory Bird	Trevor James
Tobias McConville	Tracee Tromp	Trevor McNair
Toby Campbell	Tracey Cammock	Trevor Pattinson
Toby Darvall	Tracey Clare	Trevor Pescott
Toby Linklater	Tracey Fregon	Trevor Phillips
Todd Dickson	Tracey Healand	Trevor Rowntree
Todd Malkoutzis	Tracey Keenan	Trevor Schultz
Todd Smeaton	Tracey Mitchell	Trevor Steele
Tom Antony	Tracey Ricketts	Trevor Vincent
Tom Aulsebrook	Tracey Spitaleri	Trevor Williamson
Tom Brereton	Tracey Turner-Mann	Trevor Work and Will Gerrard
Tom Caldwell	Tracey Wareham	Triana Meagher
Tom Callery	Tracey Young	Tricia Sievers
Tom Challis	Tracy Andrews	Trina Mcmillan

Trish Carney	Vaughan Bones	Vincent Grillo
Trish Cornell	Vaughan Coffey	Vincent Nativo
Trish Stuart	Venkata Kantamani	Vincent Ritchie
Tristan Boston	Vera Gerber	Vincent Saliba
Tristan Clark	Vera Sissons	Vincenzina Del frate
Troy Bormann	Veronica Maunder	Virginia Bortoluzzo
Troy Cassar	Veronica Rickard	Vishal Kukal
Troy Malthouse	Veronika Friedrich	Vishal Shah
Troy Passarin	Veronique Smith	Visho Zeqaj
Troy Robinson	Vic Bostock	Vito Albanese
Troy Summerhayes	Vic Rippon	Vito Dipasquale
Trudi Aitken	Vicki Carey	Viv Hari
Trudy Burney	Vicki Fox	Vivian Tee
Trudy der-Kinderen	Vicki Jackson	Vivien Dews
Trudy Smith	Vicki La Praik	Vivien Rutter
Trust for Nature	Vicki Longman	Vivien Santer
Tuesday Browell	Vicki Philipp	Vivien Smith
Tyron Lockwood	Vicki Webster	Vivien Williams
Tyrone Foggiano	Vicky Hudson	Vivienne Mountain
Tyrone Jones	Vicky Shukuroglou	Vivienne Ortega
Tyson Aylmer	Victor Bezv	Vivienne Willia
Tyson Jack	Victor Suppa	Vlado Juric
Tyson Younh	Victor Willms	Voula Theophilopoulos
Ubaldo D'Antino	Victoria Barnes	Wade Howard
Una Allender	Victoria Fernandez.pdf	Wade McGirr
Urszula Horbacz	Victoria Hall	Wade Wright
Usama Khan	Victoria Loxton	Walid Hazim
Vadim Z	Victoria Mason	Walid Kassab
Valeria Maurer	Victoria Thompson	Walter Albert
Valerie Evans	Victorian Deer Association	Walter Carbonari
Valerie Greenough	Victorian Drag Boat Club	Walter Carbonari Carbonari
Valerie Hanley	Victorian Game Hunters Association	Walter Lucas
Valerie La May	Victorian Hound Hunters	Wanda Ginnane
Valerie Lawford	Victorian Traditional Owner Land Justice Group	Ward Young
Valerie Moore	Victorian Wildlife Shelters Coalition	Warranty Keane
Valerie Newman	Vikki McInnes	Warren Ball
Valerie Parkin	Vikki Warr	Warren Brewster
Valerie Thiessen	Vikram Jaggi	Warren Chapman
Vanathy Arudselvan	Viktoria Vazorka	Warren Cousins
Vanessa Azzopardi	Vin Walkinshaw	Warren Hodge
Vanessa Craven	Vince Astuto	Warren Oliver
Vanessa Gray	Vince Bailey	Warrick Benton
Vanessa Mignon	Vince Burzomi	Warrick Grass
Vanessa Reynolds	Vince Leo	Warringal Conservation Society
Vanessa Thomas	Vince Manganelli	Warwick Armstrong
Vanessa Thompson	Vince Mathews	Warwick Hamer
Vanessa Williamson	Vince Raschilla	Warwick Mears
Varol Hussein	Vincent Franz	Wayde Hawkins
Vasanta Suddock		Wayne Arvidson
Vasilios Chrisomalidis		Wayne Bone

Wayne Bordieri	Will Heily	Yilbay Turkoglu
Wayne Brideson	Will Wyatt	Yolande Pickett
Wayne Butler	William Bird	Yvette Dorr
Wayne Coulton	William Blacker	Yvette Dullaghan
Wayne Douthat	William Cawood	Yvonne Ching
Wayne Gibson	William Davidson	Yvonne Collins
Wayne Griffiths	William Davies	Yvonne Horsfield
Wayne Hobson	William Dow	Yvonne Stokes
Wayne Hogan	William Emmett	Zac Penn
Wayne Jolly	William Fleming	Zach Hussong
Wayne Lawrance	William Fraser	Zachary Felmingham
Wayne Lieshout	William Green	Zachary Jorgensen
Wayne Parkinson	William Griffiths	Zachary Kendal
Wayne Rigg AFSM	William John Stevens	Zachary Sharp
Wayne Vella	William Knight	Zane Brown
Weelam Wildlife Shelter	William Kosakiewicz	Zappone Felice
Wei Feng	William Lane	Zdenka Anderson
Wellington Shire Council	William Lawrey	Zeke Yarak
Wendy Anderson	William Mooney	Zena Kaye
Wendy Archer	William Morris	Zero-In Pest Control
Wendy Bernet	William Murray	Zito Frank
Wendy Davis	William O'Shea	Zoe Borbiero
Wendy Donovan	William Ogden	Zoe Gallent
Wendy Duncan	William Parkin	Zoe Irwin
Wendy Fisher	William Paul	Zoe Kleinitz
Wendy Flahive	William Pini	Zoos Victoria
Wendy Forsyth	William Ramsay	Zorro Parmigiani
Wendy Lydall	William Scott	
Wendy McIntyre	William Shellard	
Wendy McWilliams	William Stephson	
Wendy Millar	William Toogood	
Wendy Morris	William Turner	
Wendy Morrison	William West	
Wendy Oliver	William Wilkinson	
Wendy Radford	William Woodmason	
Wendy Round	Williams Ash	
Wendy Russell	Willie Richardson	
Wendy Wall	Wilma Bedford	
Wendy-Mae Rapson	Winifred Logan	
Weng Yien How	Working Gundog Association of Australia (SA)	
Wes Hokin	Yalukit Willam Nature Association	
Wes Treloar	Yana Catanese	
Wessam Asmar	Yarra Valley Field and Game	
Whitney Hendrix	Yarra Valley Hunting and Recreation	
Whitney Watters		
Wicks David	Yash Misra	
Wil Tippet	Yasmin Elmore	
Wildlife Victoria	Yasmine Bowen	
Will Brereton	Yianni Stavrou	
Will Cumper		

Extracts of proceedings

Legislative Council Standing Order 23.20(5) requires the Committee to include in its report all divisions on a question relating to the adoption of the draft report.

All Members have a deliberative vote. In the event of an equality of votes, the Chair also has a casting vote.

The Committee divided on the following questions during consideration of this report. Questions agreed to without division are not recorded in these extracts.

Committee meeting—21 August 2023

Chapter 1: Overview and key recommendations

Georgie Purcell moved, that when referencing other forms of animal hunting (not ducks), change invasive to introduced throughout the entire report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland

Amendment defeated.

Georgie Purcell moved, omit the word ‘pest’ when referring to duck control throughout the entire report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland

Amendment defeated.

Melina Bath moved, omit Recommendation 1 and insert:

RECOMMENDATION X: That the Victorian Government allows the continuation of the annual recreational native bird hunting open season on all public and private land, under regulations administered by the Victorian Game Management Authority (GMA) using the adaptive harvest model (within three years) to determine length of season and bag limits.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell

The ayes and noes being equal, the Deputy Chair gave his casting vote with the noes.

Amendment defeated.

Jeff Bourman moved, in Recommendation 1 omit 'Government ends' and insert 'Government continues'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell

The ayes and noes being equal, the Deputy Chair gave his casting vote with the noes.

Amendment defeated.

Georgie Purcell moved, at the end of Recommendation 2 insert:

However the Government should review the process in which land owners can obtain an ATCW permit.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland

Amendment defeated.

Melina Bath moved, omit Recommendation 3 and insert:

RECOMMENDATION X: That Traditional Owner hunting rights are retained as long as the Victorian Government continues an annual native bird hunting season.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell

The ayes and noes being equal, the Deputy Chair gave his casting vote with the noes.

Amendment defeated.

Melina Bath moved, omit Recommendation 4 and insert:

RECOMMENDATION X: That State Game Reserves continue to be used and maintained for their intended purpose.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell

The ayes and noes being equal, the Deputy Chair gave his casting vote with the noes.

Amendment defeated.

Jeff Bourman moved, omit Recommendation 4.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell

The ayes and noes being equal, the Deputy Chair gave his casting vote with the noes.

Amendment defeated.

Melina Bath moved, omit Recommendation 5 and insert:

RECOMMENDATION X: That the Game Management Authority should continue in its intended purpose as an independent authority responsible for the regulation of game hunting through education, research, and enforcement to achieve responsible and sustainable game hunting in Victoria.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell

The ayes and noes being equal, the Deputy Chair gave his casting vote with the noes.

Amendment defeated.

Georgie Purcell moved, omit Recommendation 5 and insert:

That the Game Management Authority consider the viability of supporting and expanding game hunting for non-native species, such as deer, fox and rabbit, to assist with the control of introduced species.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland

Amendment defeated.

Katherine Copsey moved, omit Recommendation 5: That the Game Management Authority should focus on supporting and expanding game hunting for non-native species, such as deer, fox and rabbit, to assist with the control of these invasive species.

The Committee divided.

Ayes	Noes
Melina Bath	Michael Galea
Jeff Bourman	
Katherine Copsey	
Evan Mulholland	
Georgie Purcell	

Amendment agreed to.

Melina Bath moved, after line 16, Insert:

Recommendation X: That the Victorian Government provided addition resources to DEECA and ParksVic to better control non-native invasive species.

The Committee divided.

Ayes	Noes
Melina Bath	Georgie Purcell
Jeff Bourman	
Katherine Copsey	
Michael Galea	
Evan Mulholland	

Amendment agreed to.

Georgie Purcell moved, omit Recommendation 6 and insert:

Game licences holders who are only endorsed for duck and quail should receive information and education about attaining accreditation to hunt non-native species.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland

Amendment defeated.

Melina Bath moved, omit Recommendation 6: That supports be made available for game licences holders who are only endorsed for duck and quail to gain accreditation to hunt non-native species such as deer, fox and rabbit.

The Committee divided.

Ayes	Noes
Melina Bath	Michael Galea
Jeff Bourman	
Evan Mulholland	
Katherine Copsey	
Georgie Purcell	

Amendment agreed to.

Melina Bath moved, omit lines 23 to 25 and insert:

Game hunting in Victoria is a sustainable activity based on science and conducted in a safe and responsible way. Victoria’s recreational native bird hunting is highly regulated and under the Sustainable Hunting Action Plan (SHAP), hunter education, animal welfare and research are being strengthened.

The majority of surveyed respondents (56% to 61%) support a continuation of duck hunting under new rules to protect native species, including 39% of Labor voters who were opposed to a ban on duck hunting in Victoria.

Resources are in place to train and assess native game bird hunters in all aspects of the activity and implement any new training requirements that may be required.

An open duck hunting season lasts no more than 12 weeks between March and June and avoids the season of breeding and moulting, and typically lasts about 10 weeks, but was only 5 weeks in 2023.

Prior to ruling on the annual hunting arrangements, the Victorian Government is provided with output from a scientifically based interim harvest model designed to deliver scientifically based guidelines for the upcoming season. This model uses aerial surveys, priority wetland counts and the amount of water in the landscape over the preceding three-year period in south-eastern Australia.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, that After line 31, insert:

The authority to control wildlife scheme should be reviewed with a focus on

(1) tightening of regulations around lethal and non-lethal methods of control and

(2) overall improved scrutiny and transparency of the scheme.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 32 to 33 and insert:

The Committee supports the hunting rights of Traditional Owners as long as the Victorian Government continues an annual native bird hunting season.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 34 to 71.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 73 to 133 and insert:

Victoria's Game Management Authority is responsible for regulating game shooting in Victoria. They report exceptionally high compliance with regulations - 99.9% for duck hunting and 100% for quail in 2022.

In 2019 Victorian hunters contributed \$356 million and 3,138 jobs to the Victorian economy with most in regional Victoria. If hunting expenditure were replaced by other expenditures, some regional towns that are particularly reliant on hunting expenditure would be adversely affected. The areas of regional Victoria that benefit from native bird hunting include many regional communities that have been adversely affected by contraction in economic activity caused by the Andrews governments forest, energy and water policies.

The Victorian Government receives about \$4 million pa from game licence revenue **plus** another \$4.4 million in gun licence revenue – total \$8.4 million from 58,000 licenced hunters.

The analysis of net economic impact by the Parliamentary Budget Office (PBO) understates the contribution to gross regional product and regional employment because the substitutability assumptions are unknown or uncertain. The Parliamentary Budget Office estimated increase in the state budget net position from recreational native bird hunting is understated as PBO did not consider revenue from firearms licences in assessing the impact of duck and stubble quail hunting.

Loss of wetland habitat is the key issue effecting waterbird populations and hunting has a very small effect that is considerably overridden by loss of habitat.

Managing environmental flows in the Murray-Darling is required to improve waterbird habitat. We need to explore how we may engineer both improved flood mitigation and harvest the water from damaging peak floods and use it to enhance environmental flows.

In Victoria duck hunting is sustainable and regulated according to an adaptive harvest model based on good science, and hunting does not put a dent in the population given the biology of ducks – they are prolific breeders.

Hunting has little impact on game bird populations, because mortality impacts from hunting, predation, starvation, malnutrition and disease are not additive but are compensatory. Competition for food is often reduced when hunting or predators remove some animals from the population and therefore fewer animals die from starvation, malnutrition, sickness or disease.

There is no scientific basis for changing the length of the hunting season, so it is best to just change the hunting bag, which has been shown in other countries to be an effective way of regulating hunting.

Ducks reproduce at an early age, have large broods with no density dependence, and are less affected by loss of habitat, with wood ducks taking over farm dams and golf courses.

Flood and drought cause an ‘episodic irruptive boom-bust cycle of waterfowl’. In boom flood times chestnut teal or grey teal or black ducks may double brood and produce up to 18 ducklings to fledging age that are likely to die from starvation, disease or predation when the bust comes.

Regulation of the harvest in the busts reduces the impact on the core breeding population.

Native game bird hunting does not pose an added threat to non-target species because licenced hunters take care to avoid doing that.

Hunting organisations and animal welfare groups have established and agreed on a Wound Reduction Action Plan. The plan has been in the hands of the Victorian Government since September 2022.

RECOMMENDATION X: The Victorian Government immediately endorses and funds the implementation of the Waterfowl Wounding Reduction Action Plan.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit lines 92 to 100.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit ‘In contrast, popularity of deer hunting is growing rapidly.’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit ‘In particular by converting the existing State Game Reserves used for duck hunting to outdoor recreation reserves, with a priority on recreational activities at these sites.’ and insert:

In particular by converting the existing State Game Reserves used for duck hunting to reserves, with a priority on environmental restoration and recreational activities at these sites.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit ‘However it is clear that efforts in recent years to improve its practices are showing results,’

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Katherine Copsey moved, in line 155 after ‘hunting.’ insert:

and the considerable public sentiment against native bird hunting as publicised in a number of survey findings throughout Australia over the years, and reflected in the larger numbers of submissions to the inquiry opposing native bird hunting.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in line 340 after ‘branch.’ insert:

The Committee also heard evidence of damage to Victorian water systems, for example the 2009 illegal diversion of water onto Heart Morass by a Field & Game representative, and that for many shooters their efforts to care for the environment and undertake activities such as building nesting boxes was contingent on their continued ability to shoot ducks as part of a recreational hunting season.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in line 350 after 'fauna.' insert:

Therefore, resourcing and support for environmental conservation and habitat restoration activities should be provided to a broad range of First Nations, conservation and community groups, not solely to shooting groups.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Michael Galea
	Jeff Bourman
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit lines 398 to 406 and insert:

Allegations of poor behaviour on the wetlands were made by shooters and by rescuers.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, that Chapter 1 as amended be adopted and stand part of the report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Motion agreed to.

Chapter 2: Native bird hunting in Victoria

Georgie Purcell moved, in line 3 omit 'colonial times' and insert 'since colonisation'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Georgie Purcell moved, in line 10 omit 'humane'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Melina Bath moved, in line 86 After 'duck hunting,' insert 'for a limited season,'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, in lines 51 to 52 omit 'This is concerning and increases the public safety risk.'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of Line 57 insert 'It should be noted that one of the RVOTDS presenters wore a disguise.'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 61 to 63.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of Finding 2 insert 'and needs to be fixed as soon as possible. Resources should be added as a priority'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, omit 'Finding 2' and insert Recommendation X: That the Victorian Government ensures'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit Finding 3 and insert:

FINDING X: Hunting should be allowed to continue on private and public land.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit Finding 3.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 109 to 115 and insert:

2.3.1 The number of game licenses and license revenue

There were 58,016 fully licenced game hunters (58,332 including provisional licenses) in Victoria on 30 June 2022. Of these, 27,810 were licenced with an entitlement to hunt game birds. Victoria receives 4 million dollars in game licence revenues and about another \$4.4 million in gun licence revenue (Table 2.X).

Table 2.X: The number of game licenses and game and gun license revenue

Category	Licences (No)	Fee (\$/yr)	Game Licence Revenue (\$000/yr)	Gun Licence Revenue (\$000/yr)
Deer (Stalking)	27,699	60.92	1,687	2,093
Deer (Stalking & Hounds)	2,770	60.92	169	209
Game Birds, including Duck	11,083	60.92	675	837
Game Birds, excluding Duck	1,089	60.92	66	82
Deer (Stalking) & Game Birds, including Duck	9,712	91.38	887	734
Deer (Stalking & Hounds) & Game Birds, including Duck	2,085	91.38	191	158
Deer (Stalking) & Game Birds, excluding Duck	3,442	91.38	315	260
Deer (Stalking & Hounds) & Game Birds, excluding Duck	181	91.38	17	14
Total all licence categories	58,061		4,007	4,387

FINDING X: The Victorian Government receives about \$4 million pa from game licence revenue plus about another \$4.4 million in gun licence revenue from 58,000 licenced hunters.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, in line 121 omit 'by a modest amount' and insert 'as well'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 122 to 131.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved after line 37, insert:

The National Firearms Agreement advises against the licensing of guns to children under the age of 18. The Committee notes that the licensing of guns to children as young as 12 for the purpose of recreational duck shooting goes against this agreement.

In their evidence to the Committee the Australian Cypriot Sport Shooting Association confirmed that juniors can obtain a membership to their association without authorisation of an adult.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 152 omit 'limited areas of'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 165 insert:

Finding X: Currently land holders can apply for an ATCW to control duck species. Authorities have issued 20% less lethal control permits and 267% more non-lethal control permits from 2021-22.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 215 insert ‘in contravention to the advice received by the GMA’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 222 insert ‘and the minister wilfully chose to ignore the scientific evidence’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 230 after 'Act', insert 'based on flimsy 'evidence' provided by protestors'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 263 to 267.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, in lines 288 to 289 omit 'indicating 39.3% surveyed, with the majority in regional Victoria, support a ban on duck shooting' and insert:

indicating 39.3% of respondents strongly supporting and 19.2% supporting a ban on duck shooting, the majority from regional Victoria.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit lines 288 to 289.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Katherine Copsey moved, the Chapter 2 as amended be adopted and stand part of the report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Motion agreed to.

Chapter 3, Regulation of native bird hunting in Victoria

Jeff Bourman moved, in line 8 after 'subject to' insert 'ministerial'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in lines 8 to 9 omit 'bird populations and' and insert 'bird populations, political factors and'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 17 insert 'The RAMSAR convention specifically allows for hunting on these wetlands as a 'wise use'.'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 77 to 82.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 122 insert ‘Hunting is allowable under ‘wise use’.’

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, at the end of line 147 insert ‘Hunting is also an allowable ‘wise use’ under the RAMSAR convention.’, and at the end of line 156 insert ‘This will be due to hunting being allowable under ‘wise use’ in the convention.’

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, after line 212, insert:

The Committee notes that for the 2023 duck season, the Minister for Outdoor Recreation ignored GMA Board recommendations for a full season length with a daily bag limit of four ducks per day, commencing on Wednesday 15 March and ending on Monday 12 June.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 214 insert 'The minister is not required to, and didn't follow this advice in 2023.'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, after line 340 insert:

Though it must be acknowledged that in wet year the dispersal of waterfowl to temporary wetlands will result in a lower count in the usual wetlands that get counted.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 360 After '7 days' Insert:

This can be done with no supporting evidence at all and in the opinion of one of 3 responsible ministers.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved after line 457, insert:

The Committee asked Victoria Police if there was a limit on the number of firearms a person with a licence may own to which John Cahill replied 'With category A firearms, which is essentially what we are talking about, there is no limit.' The Committee has concerns around the potential stockpiling of weapons.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, that Chapter 3 as amended be adopted and stand part of the report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Motion agreed to.

Chapter 4: Environmental and economic issues

Jeff Bourman moved, omit lines 3 to 13.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in lines 7 to 8 omit 'In addition, there is a considerable risk during open season that threatened species will be wounded or killed' and insert:

In addition, there is a considerable risk during open season that threatened and non-game species will be disturbed, wounded or killed.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit lines 11 to 13 and insert:

Native bird hunting comprises only a small impact on total populations.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit lines 11 to 13 and insert:

Although deaths from bird hunting may comprise a relatively small number in relation to total bird population numbers, in the Committee's view we should not be placing additional pressure on already strained native fauna.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit lines 14 to 16 and insert:

The Committee acknowledges that the loss of wetland habitat is the key issue effecting waterbird populations, while hunting has a very small effect that is considerably overridden by loss of habitat.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit lines 17 to 19.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Michael Galea
	Jeff Bourman
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, in line 18 after ‘hunters’ insert ‘and conservation groups’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 19 insert ‘and it wouldn’t be reasonable to expect the same level of effort should waterfowl hunting be banned because of political considerations and personal dislikes.’

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 20 to 24 and insert:

The Committee also considered the economic impact of native bird hunting. Victorian Game Licence holders hunt to spend time in places special to them and to spend time outdoors and contribute to regional economies across Victoria. In 2019 these hunters contributed \$356 million and 3,138 jobs to the Victorian economy with most in regional Victoria. The stimulus effect of native bird hunting, particularly in regional Victoria is considered in this chapter.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 20 to 24 and insert:

There is direct evidence that native bird hunting proved a tangible positive benefit to the Victorian economy, particularly the regional economy even though the RMCG estimate and PBO estimates are different. The Australia Institute report had no credible evidence and was primarily criticising the RMCG report though the criticism had no facts to present.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in lines 22 to 24 omit 'Whilst there is a clear direct benefit to some regional towns in Victoria,'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, at the beginning of line 30, insert 'Victoria is in the midst of an extinction crisis and thousands of waterbirds are already under extreme stress.'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 51 after ‘decade’ insert ‘but recognises that wet conditions can create temporary wetlands that spreads the birds into areas that aren’t counted’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 72 after ‘ecologist’ insert ‘and Animal Justice Party candidate’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in lines 126 to 132 omit ‘However, the Committee is particularly concerned with the downward trends in native bird populations since the Eastern Australia Waterbird Aerial Survey for the past 40 years.

In the context of decreasing habitat and the impacts on the environment caused by climate change and water management, native bird hunting puts undue pressure on already strained bird populations.’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit line 130 and insert:

In the context of decreasing habitat, the extinction crisis and the impacts on the environment and biodiversity caused by

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 168 after 'are' insert 'though harvest levels can be set to 0 (zero) should the science dictate this'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, in line 197 after 'populations' insert 'and further acknowledges that the waterbirds may be located in temporary wetlands that aren't counted'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 198 to 201 and insert ‘The Committee’s view is that the IHM sufficiently allows for Climate Change and habitat loss.’

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 204 insert:

The RVOTDS video showed a protestor illegally taking a wounded duck and failing to dispatch it immediately as is required by law, instead keeping it inhumanely alive until it could be used for media benefit.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, after line 223, insert:

The Wildlife Victoria CEO admitted that they had never rescued a bird, then later changed her answer to ‘I’ proving this is a protest or activist movement, not a rescue movement.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit line 346 and insert:

Many pro-shooting submitters highlighted the conservation work undertaken by hunter-

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 352 insert:

Evidence heard by the Committee that conservation work is undertaken by environmental protection organisations including First Nations groups.

Dr Holly Sitters stated:

we have some fantastic groups out there who are doing some brilliant work involved in wetland research and restoration – for example, DEECA working with ARI....they are currently undertaking the WetMAP project, which is designed to improve wetland health across the state. They are working with CMAs and wetlands specialists to manage grazing such that it helps remove weeds and does not degrade wetland systems. ARI is also undertaking an assessment of wetlands habitat connectivity at the statewide scale. The Blue Carbon Lab’s Victorian coastal wetland restoration program is a multidisciplinary project that is focused on restoring wetland conditions in the more coastal areas. The Victorian Landcare program of course is highly successful. It is a community-based volunteer movement that facilitates and coordinates action to care for the environment again across the state and across ecosystems. Several NGOs, like the Nature Conservancy and Trust for Nature, work a lot with private landholders to restore habitat and maintain habitat quality, and the Wetland Revival Trust is also working with the community and traditional owners in order to restore wetland condition. So we have large networks of people out there working to conserve and restore wetlands

Contrary evidence presented by the Victorian Traditional Owner Land Justice Group detailed environmental destruction including habitat loss at the hands of shooters.

Paul Haw stated:

As I said before, there are numerous wetlands around Boort. The only thing I ever hear is destruction. I cannot name one project in the last 20 years – what they have done around the wetlands in Boort. I have to go and do it myself out of my own pocket. At the moment I am growing 4000 trees to plant back in Lake Boort, and I have to call upon schoolchildren to plant them. There is just nothing they do around Boort.

...

The firewood – it actually goes out in tons and tons now, out of especially Yando Swamp and Lake Leaghur, because they have got lots of black box trees.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, after line 358 insert:

the committee notes that none of the protestor or activist movement could boast a similar program.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in Case Study 4.1 paragraph 1, after ‘donations’ insert ‘ from hunters’

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Katherine Copsey moved, in Case Study 4.1 after paragraph 2 insert:

In 2009 a Field & Game representative was prosecuted and fined for illegally diverting water onto Heart Morass.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit lines 359 to 368 and insert:

Volunteers enhance wetland habitat and breeding of waterbirds

Heart Morass a case study of habitat restoration by hunter – conservationists.

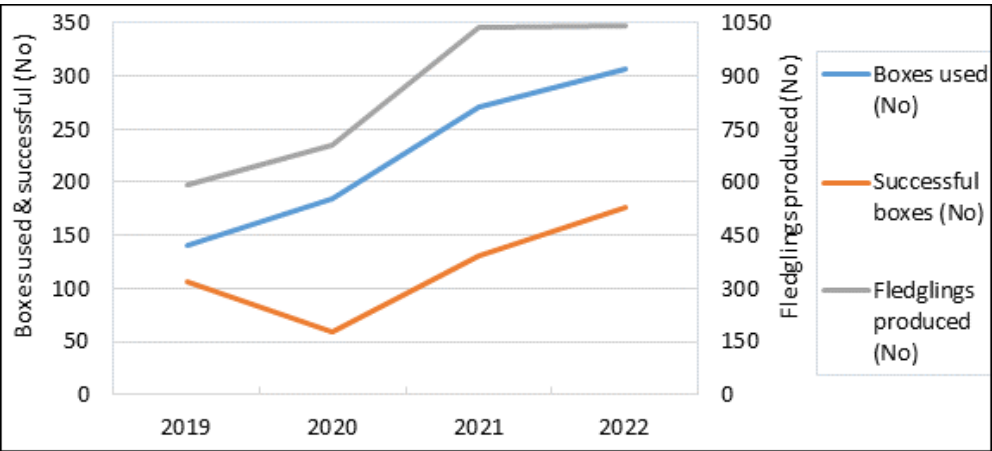
In response to a question in the hearings from Melina Bath on the artificial nesting boxes, Dr Brian HILLER replied:

Habitat is key. If you have habitat, you have birds.”

These are artificial nest boxes that are erected by the Field and Game association at Sale. They have over 500 of them currently scattered around Heart Morass in the Lake Wellington area. So my interest in that was: what is coming out of them from a biology standpoint? What additional birds are being produced if these things were not here? And so I instructed them and sort of gave them some guidance on how they might be able to collect data so that they could have a better understanding of what their work was actually accomplishing and if it was accomplishing anything.

We started the work in 2019, which was sort of the end of the bust period. That bust period, again, you shrink back to your core population, and your core population at that time – we had relatively few boxes being used, but the boxes being used had a 75 per cent success rate. So if a bird nested in the box, 75 per cent of those boxes actually produced at least one duckling. That is considered a successful nest. And in that case, I want to say we had about 730-something ducklings that were produced that year. In each of the past three years where we have had these boom periods we have had a lot of excess birds on the landscape (Figure 4.X).

Figure 4.X: Volunteer’s nesting boxes enhance breeding of waterbirds at Heart Morass



Impact of duck hunting on non-target species

In response to a question in hearings from Georgie PURCELL: ‘Do you think that duck shooting poses an added threat to species that are not on the game species list that are already struggling due to the other factors,’ Richard Kingsford offered the following reply:

But generally they are fairly small numbers in the big scheme of things because people are not doing that. I do not think non-target species is an issue.

In response to a question in hearings on non-target species Danny Ryan, Chairman Field and Game Australia offered the following comments:

The hunting community is very interconnected. We have a large amount of members not only nationwide but with the majority in Victoria, and we constantly get reports in the lead-up to the season in particular, because that is always an issue that the hunting community looks at and tries to second-guess and work out where they will be going and what potential closures there may be. And then in turn, in our lead-up discussions with the GMA we often bring up those particular points, particularly where they are large quantities of protected birds or congregations of protected birds.

Finding X: Native game bird hunting does not pose an added threat to non-target species because licenced hunters take care to avoid doing that.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit Finding 1 and insert:

Finding X: Hunter-conservationists, most of whom are volunteers, have contributed a considerable amount to conservation and restoration projects of Victorian wetlands.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit Finding 1 and insert:

Finding X: The Victorian Government should ensure that there is adequate funding and support to enable increased conservation and restoration projects of Victorian wetlands by First Nations, community (including hunting groups) and environmental organisations.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, in line 325 omit ‘birds—particularly waterfowl—’

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Georgie Purcell moved, after line 401, insert:

Dave Evans also stated:

I have four 44-gallon drums full of shotgun shells that beg to differ that the wetlands are clean. These are shotgun shells that are picked up by rescuers, because we clean up the wetlands as we rescue birds.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Georgie Purcell moved, omit Recommendation 1 and insert:

Recommendation X: That the Victorian Government amends the Victorian wildlife framework to discontinue the use of lead shot for all types of bird hunting and undertakes further investigation into plastic pollution and other forms of wetland degradation as a result of hunting.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Georgie Purcell moved, after line 425, insert:

The Committee heard evidence that culling from NSW rice fields is less than 5-6% of the harvest from Victoria's recreational duck shooting season. Jo Wilkson stated:

I am happy to say that a lot has been made about the rice crop protection in New South Wales. People do not necessarily look at the stats. But if you look at the last eight years of stats, which are publicly available, the average cull in the New South Wales rice crop program is 5 percent of our recreational cull for that same eight-year period – 5 per cent. Ours is for recreation; theirs is for economic purposes.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, omit lines 426 to 430 and insert:

The Committee recommends that the Victorian Government review pest populations of ducks in the coming years to consider widening the scope for pest control.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in lines 428 to 430 omit 'The Committee has also recommended that the Victorian Government review pest populations of ducks in the coming years and to consider widening the scope for pest control.'

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 436 after 'participants' insert 'yet still placed a substantial positive value of money being injected into the economy'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 437 to 440 and insert 'The Australia Institute submission was short on detail and methodology and long on baseless criticism of other work.'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in lines 461 to 464 omit ‘Those who supported native bird hunting believed it illustrated considerable direct and flow on benefits to the economy. Those opposed to native bird hunting believed the findings were overstated and did not reflect the true economic impact of the activity.’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 480 to 482 and insert:

According to the Parliamentary Budget Office, native bird hunting has a small direct positive impact on the Victorian Budget, however it ignored RMCG’s estimates of economic contribution and focused on net economic impact, using assumptions that are not supported by hard data.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 482 after ‘2023–24’, insert ‘the remainder being spent in small businesses and other private enterprise’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Katherine Copsey moved, omit Finding 2 and insert:

Finding X: There is little data on the direct economic impacts of native bird hunting in Victoria. Total figures provided to the Committee had a significant difference in their range and had inconsistent methodology. The Parliamentary Budget Office assessed that native bird hunting has a small net revenue impact on the Victorian Budget (\$2.7 million received from licence and test fees in 2023–24). The Parliamentary Budget Office estimated the economic impact of native bird hunting at \$12 million (0.002% of Victoria's gross state product) and 118.2 full-time equivalent employees (0.003% of Victoria's employment).

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Evan Mulholland
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved omit Finding 2 and insert:

There is data that there is a direct positive economic impact of native bird hunting. Total figures provided to the committee varies but the Australia Institute was unqualifiable and primarily attacked the RMCG report.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit Finding 2.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, after line 501 insert, insert:

Following the closure of Morwell and Hazelwood Power Stations and coal mines the Andrews Government spent over \$300 million on substitutional economic activity/employment yet the number of jobs in the Latrobe Valley declined by 8% over a decade. In rural Victoria it is the contribution to regional rather than state socioeconomic outcomes that is vitally important.

Parliamentary Budget Office estimate that native game bird hunting is expected to increase the state’s budgeted net position by \$2.7 million in 2023–24, (\$3.3 million in revenue, partially offset by \$0.5 million in staffing expenses).

Finding X: The Parliamentary Budget Office estimated increase in the state budget net position from recreational native bird hunting is understated as PBO did not consider another \$4.4 million from firearm licences in assessing the impact of duck and stubble quail hunting.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, after line 501, insert the following case study:

Case Study 4.X: Wellington Shire

Socioeconomic contribution in Wellington Shire

Hunting expenditure by Victorian game licence holders across all animal groups in Wellington during 2019 was \$18.3 million. Of this, \$3.1 million was attributed to duck hunting, compared with \$12.5 million to deer hunting, \$2.2 to pest animals and \$0.5 million for quail. Expenditure in Sale for duck hunters was \$2.3 million, compared with \$4.1 million for deer hunters, \$1 million for pest animals and \$0.4 million for quail.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, after line 596, insert:

The RMCG estimates of economic contribution would have been higher if based on a full 87 day season and normal 10 bird per day bag limit. RGCC’s estimated economic contribution was based on the 2019 season of only 65 days and bag limit of only 4 to 5 birds per day, and hunters took an average of 6 hunting trips.

The majority or 69% of expenditure was located outside Melbourne in regional Victoria. The Local Government Areas with the highest gross economic contribution were Mansfield (\$12M), East Gippsland (\$11M) and Latrobe (\$11M). The towns with the highest hunting-related expenditure were Mansfield (\$21M), Horsham \$11M), Wodonga (\$10M) and Bendigo (\$9M). 5

The areas of regional Victoria that benefit from native bird hunting include regions that have suffered considerable socioeconomic hardship, as a result of Andrews Government policies that have contributed to thousands of job losses in these regions. Jobs have been lost as a result of closure of power stations and coal mines, reduced access and eminent closure of native forests for timber production and reduced water allocation for agriculture diminishing scale economies in agricultural processing.

Finding X: The areas of regional Victoria that benefit from native bird hunting include many regional communities that have been adversely affected by contraction in economic activity caused by the Andrews governments forest, energy and water policies.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 589 to 629.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, after line 629, insert:

The Australia Institute report lacked substance and basis in any fact and primarily attacked the RMCG report.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, in lines 672 to 673 omit ‘Nature-based tourism is a substitute outdoor activity that could offset any economic impacts of an end to native bird hunting.’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 682 insert:

The Committee also heard how recreational activities including First Nations led cultural tours are put on hold while duck shooting takes place. Paul Haw described the impact duck shooting has on his cultural tours of Boort:

No. I cannot conduct them in season because my place is only 20 metres from the edge of the lake. By law I can get fined even for being that close. What shocked me is that the Dja Dja Wurrung themselves are not allowed in the water while duck shooting is on, and it is to do with native title. I just find that hard to believe – that duck shooters have got more rights than native title.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Melina Bath moved, after line 697 insert:

However other submissions assert that certain nature-based tourism locations like Winton Wetlands are yet to be economically sustainable without significant Victorian Governments grants.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Evan Mulholland	
Sheena Watt	

Amendment agreed to.

Georgie Purcell moved, that Chapter 4 as amended be adopted and stand part of the report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Motion agreed to.

Chapter 5: Cultural and social impacts of native bird hunting

Jeff Bourman moved, in lines 3 to 5 omit 'The Committee received concerning evidence of destruction of Aboriginal cultural heritage sites cases by hunters during open season, and a disappointed 'and insert 'The Committee is disappointed'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 7 to 9 and insert:

Acknowledging native bird hunting open season is only for a small portion of the year, the Committee understands the Victorian public has access to much of the 8 million hectares of Government owned land. Most of this is Crown land reserved for national parks and state forests.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 14 to 18 and insert:

However, Committee also acknowledges the significant impact native bird hunting as an outdoor recreational activity has for hunters.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, on lines 15 to 18 omit 'In the Committee's view it important that when ending recreational native bird hunting that the Government invest resources into maintaining outdoor recreational sites and ensuring public land is available for outdoor recreational use.'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, on lines 15 to 18 omit 'In the Committee's view it important that when ending recreational native bird hunting that the Government invest resources into maintaining outdoor recreational sites and ensuring public land is available for outdoor recreational use.' and insert:

In the Committee's view it important that when ending recreational native bird hunting that the Government invest resources into maintaining outdoor recreational sites and ensuring public land is available for outdoor recreational use.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Katherine Copsey moved, on lines 17 to 18 omit 'restoring the natural environment for the benefit and enjoyment of Victorians now and into the future, maintaining outdoor recreational sites and ensuring public land is available for environmental restoration and outdoor recreational use.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 22 omit 'However others disliked the use of guns and the presence of hunters at important cultural sites.' and insert 'Some just didn't like guns.'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, at the end of line 104 insert:

We are trying to showcase our cultural heritage to schools and universities, public servants and parliamentarians and all that. How can we do that during the duck season when there are guns out there? Why would we take 60 kids and 20 leaders camping at that lake near Paul's keeping place when in the morning you are going to hear shotguns going off.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Georgie Purcell moved, at the end of line 127 insert 'and taken off site'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit lines 133 to 147.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, after line 245, insert:

Recommendation X: That the Victorian Government requires, in addition to passing the Wildlife Identification Test, hunters participate in an Aboriginal cultural heritage awareness education program.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 245, insert:

Recommendation X: That the Victorian Government requires hunters participate in an Aboriginal cultural heritage awareness education program.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, omit lines 247 to 248.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 259 to 266 and insert:

State Game Reserves were purchased with hunters' money for the express purpose of hunting.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in lines 262 to 264 omit 'as distinct from non-native birds and other pest animals such as deer which the Committee considers should remain available for hunting', and in lines 267 to 269 omit 'It is clear that the considerable skill of hunters could be well utilised in many other places and activities, such as the hunting of non-native species such as deer, fox, rabbit and feral horses, to control the invasive nature of these species on our local environment.'

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 267 to 269.

The Committee divided.

Ayes	Noes
Melina Bath	Michael Galea
Jeff Bourman	Georgie Purcell
Katherine Copsey	Sheena Watt
Evan Mulholland	

Amendment agreed to.

Melina Bath moved, in lines 294 to 295 omit 'However, it is clear that there is no other recreational activity that excludes members of the public at the same scale as native bird hunting.'

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 425 to 440 and insert:

Recommendation X: That State Game Reserves continue to be used and maintained for their intended purpose.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 425 to 440.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in line 427 after ‘activities’ insert:

and to restoring the natural environment for the benefit and enjoyment of Victorians now and into the future

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Amendment agreed to.

Katherine Copsey moved, in line 433 omit ‘outdoor recreation reserves, with a priority on recreational activities at these sites.’ and Insert:

reserves, with a priority on recreational activities ‘and environmental restoration at these sites.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in line 437 after ‘activities’ insert ‘and experience the benefits of connection with nature’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit Recommendation 2 and insert:

Recommendation X: That State Game Reserves used for duck hunting be converted into Reserves to improve environmental outcomes and provide greater access to outdoor recreation for all Victorians, with appropriate investment in environmental restoration, camping, boating, and related infrastructure.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Evan Mulholland
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit Recommendation 2.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, after line 509, insert:

The Committee recognises the importance of active public land management by government agencies. Over many years there has been a contraction of workforce away from the regions.

A recent DELWP annual report indicated in 2021 over half of DELWP's staff were located in the CBD of Melbourne and only 11% were field staff – not ideal for the management of public land.

The Victorian Government should ensure that year-round management actions such as promoting and supporting forest health and diversity, more strategic fuel management interventions, maintaining roads for public and first responder access and protection, as well as intervention to manage invasive pests.

Recommendation X: That the Victoria Government optimise the use of its relevant agencies' resources including decentralising its workforce to ensure there is active, adaptive and accountable management on all public land, principally to address the broader threats of bushfires, invasive species and climate change.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
Evan Mulholland	Georgie Purcell
	Sheena Watt

Amendment defeated.

Sheena Watt moved, that Chapter 5 as amended be adopted and stand part of the report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Motion agreed to.

Chapter 6: Compliance with recreational native bird hunting regulations and guidelines

Georgie Purcell moved, in line 11 after 'enormous' insert '(and unknown)'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after 'often replete with' insert 'inaccessible'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit lines 17 to 30 and insert:

Victoria's Game Management Authority is responsible for regulating game shooting in Victoria. They report exceptionally high compliance with regulations - 99.9% for duck hunting and 100% for quail in the 2022 season.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 107 to 114 and insert:

The Committee acknowledges that the Game Management Authority (GMA) has undertaken a significant restructuring since the release of the Pegasus Report in 2017 and that the GMA has the appropriate governance and policies in place to manage both actual and perceived conflicts of interest.

CEO Graeme Ford outlined the progress the GMA has made since the Pegasus Report during a Hearing in stating:

The Pegasus report was one of the catalysts for that change. I think some people have been suggesting that was a report commissioned by government – it was not; it was commissioned by the GMA. We obviously took those recommendations seriously. The board has then changed some of the management structures. We have created four divisions inside the GMA; prior to that it was really one very flatline structure. We have a compliance and intelligence division, led by Paul, which is all the enforcement work. We have stakeholder and hunting programs, which looks after the education and

licensing systems; strategy and research, which looks at how we do our communications and research programs – which was probably very limited prior to 2017; and of course there is the corporate service, the back-office functions.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in line 108 omit ‘significant’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit lines 115 to 119 and insert:

Finding X: The Game Management Authority has made significant progress to implement changes based on the findings of the Pegasus report in 2017.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in line 115 omit ‘significant’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of Finding 2 insert 'and recommends an immediate funding overhaul'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in lines 139 to 140 omit 'and environmental sustainability issues in relation to recreational native bird hunting'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit lines 189 to 192.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 191 omit 'evidence' and insert 'reports'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 300 insert:

George Bucchorn, a former Manager of Compliance at the Game Management Authority described the difficulties in performing his role at the GMA from 2016-2018

when I tried to increase the level of reporting accountabilities, I was criticised and stopped. I was told that I was creating too much paperwork and was stopping the senior game officers from doing their jobs. I also wanted to develop working relationships with various protest groups and rescuers, as I saw them as a valuable resource in assisting with enforcement and an invested stakeholder. I felt that if we could develop mutual trust and goodwill, we could work together along the lines of the police and Neighbourhood Watch system. Again I got no support. I started to see that complaints that were being lodged with the GMA were being routinely dismissed without any effort being made. I also witnessed the turning of a blind eye to cruelty offences.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit Finding 2 and insert:

Finding X: The majority of the Game Management Authority's compliance and enforcement resources are deployed ensuring public safety at a range of locations where hunters and rescuers are both in attendance. This is in line with the GMA's statutory requirements.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, At the end of line 345, insert ‘and recommends protestors, activists or people who identify as rescuers be completely banned from wetlands during hunting season to allow the enforcement bodies to concentrate on hunters’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 379, insert:

Hunting is permitted in areas where retrieval of wounded birds is very difficult, such as reeds that are inaccessible to shooters, rescuers and officials.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, omit lines 380 to 386.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 406, insert ‘The Committee believes adding more resources to the GMA would assist in solving this dilemma.’

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, omit Finding 3.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 460, insert:

The Committee acknowledges that hunters are not necessarily engaging with educational efforts. As Jo Wilkinson from Animals Australia described:

Only 29 percent of game hunters belong to gun clubs. More than 70 per cent of game hunters do not even buy a membership, which is about \$100, give or take. That is how interested they are in learning about best practice and being educated by the leaders.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 469, insert:

The committee also asked Gary Howard if he had reported other shooters for non compliance to which he answered the following:

I did once, on one occasion. But yes, I probably still live to the old Australian adage ‘you don’t dob anybody in’. I do not like it, but it is something I have got to get my head around. I have reported once some people that were doing the wrong thing because I could not get to them.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 514, insert:

The Committee notes that hunters visiting from overseas or interstate, and children aged 12 to 17, do not need to pass the WIT as long as they are accompanied by a hunter that has passed it.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Amendment agreed to.

Katherine Copsey moved, that Chapter 6 as amended be adopted and stand part of the report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Motion agreed to.

Chapter 7: Hunter and rescue compliance with regulations

Jeff Bourman moved, In Chapter 7 omit all instances of ‘rescuer’ and insert ‘protester’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, omit line 8 and insert ‘This included allegations of breaches to regulations on proximity to shooters and retrieving downed birds’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, in line 9 after ‘them’ insert ‘and fail to humanely dispatch them rather they are kept alive and in pain from a media stunt’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, in lines 10 to 11 omit 'strongly condemns anti-social and otherwise unlawful behaviour'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Melina Bath moved, after line 17, insert:

Wounding is an unintentional consequence of hunting. All hunters aim to dispatch their quarry as quickly as possible. Ideally, every bird shot at would be immediately dispatched. However, the fact is that despite best efforts wounding may occur. Hunters would argue that whilst wounding could occur as a result of infrequent behaviour, it is never 'intentional.' The intent is always to dispatch the bird.

Field & Game Australia has a long and proud history of educating and engaging hunters to reduce the occurrences of unintentional wounding. Specialists in the fields of ecology and wildlife management agree that this as the most effective way to drive improvements in hunting outcomes.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, in line 40 After 'bird hunting' insert 'including the cluster pellet action of shotguns'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit line 61.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved after line 69, insert:

Along with welfare groups, Field & Game Australia is a core member working in the Wounding Reduction Action Plan Committee, which consists of a cohort of invested stakeholders (Sporting Shooters Association Australia, Beretta Australia, RSPCA and more) and have established an agreed Wounding Reduction Action Plan which was presented to the Minister for Agriculture in September 2022, and the newly-created Minister for Outdoor Recreation in December 2022, for approval and implementation.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit Finding 1 and insert:

Finding X: The Committee notes that hunting organisations and animal welfare groups have established and agreed on a Wound Reduction Action Plan. The plan has been in the hands of the Victorian Government since September 2022.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, on line 177 omit 'The Committee is satisfied there would be reductions in the rate of wounding' and insert 'The committee believes there is potential for a reduction in the rate of wounding'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 179 after 'implemented' insert 'the committee also notes that there was a majority support for duck hunting in both the RSPCA and SSAA polls should it be 'reformed', that is that the WWRAP be instituted'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 180 to 182.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 189 insert:

Mhairi Roberts from the RSPCA also explained that there were inconsistencies in comparing a wounding study with geese in Denmark to outcomes for native water birds in Victoria, Australia.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, omit lines 207 to 218.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Sheena Watt	

Amendment agreed to.

Georgie Purcell moved, in lines 227 to 228 omit 'The Committee accepts that wounding is not the ultimate goal of hunters, and that some birds that are wounded may recover. Regardless, the Committee' and insert:

The Committee accepts that wounding of birds is not the ultimate goal of hunters but that most wounded birds are unlikely to recover. The Committee

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Amendment agreed to.

Jeff Bourman moved, in lines 228 to 231 omit ‘the Committee believes that wounding thousands of birds each year as part of the recreational native bird hunting season—even at the lower estimated rate of 6%—is unacceptable and constitutes a serious animal welfare concern.’

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit Finding 2.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit Finding 3 and insert:

Finding X: The wounding reduction action plan as commissioned by the government would greatly reduce the wounding of birds.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, omit Finding 3 and insert:

Finding X: Knowledge and proficiency testing, once-off or otherwise, for both prospective and existing game license holders may help to reduce the rates of wounding during the recreational native bird hunting season.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Georgie Purcell moved in line 264 after ‘difficult’ insert ‘or impossible’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 285 after ‘bird’s insert ‘in contravention to the guidelines which require immediate humane dispatchment.’.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, after line 293 insert:

It should be noted that the animals taken by the protestors should have been humanely dispatched as per the legal requirements and given that very little to no birds are ever rehabilitated it should be a priority and the failure to do this should be met with the full force of the law regardless of what the motivations of the person in possession of the wounded animal may purport to be.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, after line 293 insert:

In total 73 unretrieved native water birds were assessed and X-rayed by their triage teams, including 8 threatened species.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, in line 301 before 'extent' insert 'alleged'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, in line 307 before ‘wounded’ insert ‘shooting is permitted at wetlands where’.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit line 330.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Sheena Watt	

Amendment agreed to.

Katherine Copsey moved, omit lines 409 to 413 and insert:

The Committee agrees with the Game Management Authority’s approach in not recommending the practice of windmilling.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Amendment agreed to.

Melina Bath moved, omit lines 418 to 420 and insert:

Recommendation X: That the Victorian Government immediately endorses and funds the implementation of the Waterfowl Wounding Reduction Action Plan.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit Finding 4.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, in line 480 omit 'However, the Committee is concerned about' and insert 'The Committee is concerned with events of deliberate over shooting and'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 480 to 484.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit lines 488 to 494.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, after line 509 insert:

It must be noted that the committee attended the opening at Lake Connewarre and did not hear any shooting before time despite a protester alleging much later that there was some early shooting there.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Georgie Purcell moved, in line 511 omit 'The Committee also received evidence regarding breaches of regulations by people associated with the rescuer movement.' and insert 'The Committee also received allegations of breaches of regulations by wildlife rescuers.'.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, in line 563 after 'care' insert 'and race hunters for birds, both dead and wounded, to keep the hunters from getting them'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, at the end of line 630, insert 'The committee subsequently received evidence in the form of video forwarded by the SSAA, that this was in fact a lie and Mr Levy had in 2017 been indulging in these practices.'.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Katherine Copsey moved, omit lines 633 to 639.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Georgie Purcell	Jeff Bourman
	Michael Galea
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, omit Finding 5 and insert:

Finding X: Protestors put themselves in danger when they break the law to enter specified hunting areas during the recreational native bird hunting season.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Melina Bath moved, after line 655, insert:

The Committee agrees with the view that Protestors can exercise their right to protest from the shore – but should not be able to directly enter active hunting areas and put themselves and hunters at risk. Any persons protesting can enter water – but must remain at least 100m from any hunter.

Recommendation X: That the Victorian Government introduce civil penalties for persons entering a wetland whereby they are within 100 metres of a hunter.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Michael Galea
	Georgie Purcell
	Sheena Watt

Amendment defeated.

Jeff Bourman moved, after line 655 insert:

Victoria Police noted that they had cancelled some shooters licenses based on the holders of those licenses not having a genuine reason as outlines by the relevant legislation and had the licenses under false pretences. The decision by Vic Pol was subsequently overturned by VCAT.

The Committee divided.

Ayes	Noes
Melina Bath	Katherine Copsey
Jeff Bourman	Georgie Purcell
Michael Galea	
Sheena Watt	

Amendment agreed to.

Georgie Purcell moved, that Chapter 7 as amended be adopted and stand part of the report.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	
Sheena Watt	

Motion agreed to.

Georgie Purcell moved, that the draft final report, (Chapters 1 to 7 including Findings and Recommendations, together with Appendices A and B), be adopted as the Report of the Committee, and that it be Tabled on 31 August 2023.

The Committee divided.

Ayes	Noes
Katherine Copsey	Melina Bath
Michael Galea	Jeff Bourman
Georgie Purcell	Evan Mulholland
Sheena Watt	

Motion agreed to.

Minority reports

Native Bird Hunting inquiry

Minority Report – *Jeff Bourman MLC*

Overview

The native bird hunting inquiry was forced upon the Upper House by the government in response to some incorrect reports of 'hunter misbehaviour', the details of which were not forthcoming. Game Management Authority enforcement data showed a negligible offence rate by hunters and that offence rates by protestors were about the same, with one notable offence being for a protestor failing to humanely dispatch an animal.

The inquiry was divided upon in the upper house with the SFFP, Liberal Democrats (now the Libertarians), PHON and the coalition voting against it. The numbers of the Labor party, Greens and AJP prevailing.

An unrealistic timeline of 31 August for the tabling of the report was set (after an unsuccessful attempt to add two months to the report date) and requests for submissions made.

More than 10,000 submissions were made to the committee, many of which are still not made public (due to technological limitations), though the committee had access to the entirety of the submissions.

It is my interpretation of the submissions and the evidence presented, and I would contest that it would also be the interpretation of any unbiased and open minded individual, that regulated duck hunting as currently performed in Victoria is environmentally wise, sustainable, economically beneficial to the most vulnerable communities in Victoria; regional and rural communities. Also animal welfare concerns have already been addressed in a report previously commissioned by the government that was being held back for about 18 months, presumably until the Government bans duck hunting as the report did provide a way forward that reduced wounding.

Ecology

Professors Kingsford & Klassen are two eminent ecologists who provide a base line index of waterfowl numbers which the government has been using to inform its Interim Harvest Model. The count is not a raw numbers count, rather it is a long term index of numbers. Those opposed to recreational duck hunting repeatedly quote Profs Kingsford and Klassen in their efforts to have recreational waterfowl hunting banned.

During their presentation, Profs Kingsford and Klassen repeatedly stated that the long term decline of waterfowl was due to habitat loss, habitat mismanagement and that duck hunting had a tiny effect on waterfowl numbers.

Professor Brian Hiller also presented evidence to the committee that properly regulated duck hunting was sustainable.

Those opposed to duck hunting could only rely on the evidence of Profs Kingsford and Klassen though the evidence those same professors presented that negated their claims was ignored.

Sustainability

The evidence of previous professors highlighted that properly regulated waterbird hunting is sustainable and the Interim Hunting Model (which when completed would lead to the Adaptive Harvest Model) allows for the vagaries of climate change and other factors to lead the season determinations. There is a report that has been commissioned and presented to the government which outlines sustainability issues and how waterbird hunting is sustainable. The report is titled something like 'Sustainability Window Report' and has been requested by the committee twice and has not been presented and as such the committee should note the lack of co-operation from the DJSIR. It is my contention that the report is being held within the bureaucracy deliberately.

Economics

The economics of regulated duck hunting is very clear though the figures are obviously different depending on methodology and data sourcing.

RMCG are a reputable consulting firm specialising in regional and rural subjects. Being a reputable firm, they use industry standard processes with data cleansing and weighting. The RMCG report was originally commissioned by the agriculture minister (now Attorney General) in 2019. The report showed that waterbird hunting has a tangible and direct impact on the Victorian economy, particularly regional economies in the region of \$65 million per year.

The Parliamentary Budget Office ran another inquiry into waterfowl hunting which provided a lower figure.

The Australia Institute (AI) is a left wing 'think tank' and their report was a farce with no economic substance. The AI report was mostly criticising the RMCG report, frequently misreporting it as the 'GMA report' despite not being commissioned by the GMA. The report is so lacking in any credibility it shouldn't be a factor in anything except an indictment of the waste of resources required to print it.

Public Opinion

Regional Victorians Opposed to Duck Shooting (RVODTS) presented an opinion poll that wasn't credible as it was self selecting and was shared around anti hunting groups so was only ever going to produce a skewed result. It must also be noted that one of the RVODTS representatives made their submission via MS Teams whilst wearing a disguise.

RSPCA Vic after a previous parliamentary inquiry in 2016 stated they wouldn't indulge in any more activism yet shortly after started on anti duck hunting activism. The RSPCA Vic, at the time of the previous parliamentary inquiry, commissioned a report by Neil Comrie, a retired Victoria Police Chief Commissioner, that stated that having statutory enforcement roles was inconsistent with activism. The RSPCA Vic presented two polls to the committee, one was a poll commissioned by themselves, run by themselves and not surprisingly the results showed what they wanted. In fairness to the RSPCA Vic they did present a second credible report on notice which showed essentially the same as a subsequent report commissioned by the Sporting Shooters Association Victoria (SSAA Vic) that there was majority support for recreational waterfowl hunting with reform.

Animal Welfare

The Waterfowl Wounding Reduction Action Plan (WWRAP) was provided to the committee as an appendix to the SSAA Vic and not by the government. The WWRAP was commissioned by the Andrews government and was presented to the government about 18 months ago. The government has not actioned the WWRAP in any way and it had been languishing in the Environment Ministers office since then. The WWRAP provides a clear and achievable pathway to reducing the wounding rate of waterfowl being modelled on similar initiatives in Denmark, initiatives which had showed an immediate and appreciable drop in the wounding rate.

Traditional Owners

Rodney Carter of the Dja Dja Wurrung said during his presentation that Traditional Owners want to share in the bounty of the land and that waterfowl hunting was traditional but also there was no reason to stop one group from partaking in the activity whilst banning another. To allow TO to continue waterfowl hunting whilst saying it is too cruel for non TO to hunt is Incredibly patronising and incites division.

Groups Opposed to Native Bird Hunting.

The 'evidence' provided by opposition groups tended towards over exaggeration, supposition and hyperbole. Numerous times the 'crimes' they reported were in fact the result of legal activities. The most obvious examples were finding 'pits' of breasted birds. There was nothing illegal about disposing of birds in this manner and the breasting demonstrated that the hunters complied with relevant regulations.

A complete lack of any idea about what is evidence, how it needed to be collected, documented and presented to enforcement agencies was a clear issue with those opposed to duck hunting.

The majority of the evidence provided by these groups and individuals was that they didn't personally like duck hunting so it should be banned.

Quail Hunting.

It is clear from the whole process that Quail Hunting was nothing more than an opportunistic grab at something that never been really a contested space. The inclusion of Quail hunting demonstrated that this issue is nothing more than a cynical political exercise aimed at pleasing a single member of parliament who is not even a member of the Labor party.

Recommendations & observations

Recommendation 1 in the main report is simply not defensible against the evidence presented. This recommendation alone completely destroys the overall credibility of the Committee Report.

Recommendations;

1. Waterfowl hunting should continue under the current regime.
2. Protestors should be banned from water ways used for hunting during hunting season to allow enforcement agencies to concentrate on hunters and not separating those illegally present from hunters.
3. Funding for Traditional Owner education and appropriate signposting/fencing to protect sites of importance should be increased across the board, not just for places such as State Game Reserves.
4. Funding for Professors Kingsford and Klaasen needs to be locked in otherwise important research will cease, further exacerbating the overall decline in waterfowl numbers due to lack of information.
5. The Wounding Reduction Action Plan should be immediately released and discussed.



Sheena Watt MP

Report, Findings and Recommendations from the Legislative Council Select Committee Inquiry into Victoria's Recreational Native Bird Hunting Arrangements

Authored by Committee Member Sheena Watt, MLC for Northern Metro Region.

25 August 2023

Introduction

This minority report has been produced in response to the submissions and hearings held to gather evidence for the Legislative Council Select Committee on Victoria's Recreational Native Bird Hunting Arrangements (the Committee). This report is informed by evidence and experiences of people who presented at the hearings and in the many thousands of submissions to the inquiry. Through the course of the inquiry and the subsequent majority report, the Committee would have benefitted from a more considered examinations of the following:

- Traditional Owner involvement;
- Sustainable regulations, enforcement and compliance; and
- The economic, social and cultural wellbeing of Victorian communities.

My contribution as outlined in this report and subsequent recommendations is informed by my work as a Committee member in evaluating the evidence heard by this Inquiry. Additionally, I have drawn upon my experiences in formulating public policy in environmental regulation, Native Title and Indigenous land use and my cultural responsibility to listen to the wisdom and knowledge of my Elders. As Committee proceedings have progressed, it has become clear that further action was needed to adequately address and acknowledge the value of First Nations connections to Country and their land-based practices and traditions. The opportunities to forge greater partnerships with other parties that work on Country, including government, civil society, and the outdoor recreation sector, also need to be addressed.

I felt it necessary to make recommendations that speak to a commitment to self-determination and that highlight the cultural practices important to the path to Treaty that this state boldly embarked upon, in this, a most pivotal year for First Nations Peoples in Victoria.

My recommendations will enable the continued practice of hunting for the people of Victoria, in particular First Nations Victorians, who demonstrated across numerous submissions and evidence that they wish to share the cultures and traditions of our connection to Country that span many thousands of generations. I recognise and honour Uncle Rodney Carter for his esteemed leadership in Indigenous land use, Native Title and more recently as the elected Elders' Voice co-convenor on the First Peoples' Assembly of Victoria. I also recognise and honour Uncle Gary Murray and thank him for sharing his wisdom with the Committee through evidence that provided Committee Members with the perspective needed to consider the aspirations of First Nations Victorians.

The recommendations presented below contrast to the recommendations of the majority report, which gave prominence to non-Aboriginal aspirations for land use and outdoor recreation activities in this state. Furthermore, my recommendations effectively balance the need to address both regulatory and compliance issues and the social, emotional and cultural wellbeing of working people through the practice of native bird hunting, especially those located in regional areas. Regulatory and compliance issues in native bird hunting should not be relegated to the 'too hard' basket as a matter of course and expedience, with an approach that denies the community the outdoor recreation of native bird hunting, in favour of 'best guess' estimations and wholesale change that involves complex transitions in land use for regional communities. The recommendations of the majority report, if implemented, will deny ordinary working Victorians an activity that they treasure.

The Committee missed the opportunity to adequately examine and consider the public land management issues surrounding environmental degradation and remediation, costs and resources currently apportioned by community groups and land users, and the overall cost to the Victorian Government of the recommendations to change land use practices resulting from ending native bird hunting.

It is my view that the findings and recommendations outlined in the majority report did not appropriately consider the above issues. The majority report did not explore the regulatory complexity of land management, nor the cost, substantive time frame or the need for ongoing care that is associated with this. This ineffective consideration of associated risks also has the added effect of undermining the ability of First Nations Victorians to undertake the age-old cultural practice of native bird hunting, as the vast majority of land in Victoria is not covered by Native Title Natural Resource Agreements (NRAs). There are only three such areas in Victoria outlined in the majority report.

Findings on Recreational Bird Hunting in Victoria

Native bird hunting is an activity that was shown through the submissions and evidence provided to the Committee to contribute positively to mental health outcomes. We know that ill mental health and well-being will impact most Victorians at some point in our lives - and some of the most at-risk segments of our community are working people and their families.

Throughout the evidentiary process, the Committee heard that, for many working Victorians, native bird hunting can contribute to positive mental health outcomes. We saw through evidence provided to the Committee that outdoor activities such as native bird hunting are important recreational activities for working people, many of whom work in physically demanding roles and enjoy these outdoor activities during their recreation time. In this way, such outdoor recreational activities can act as an anchor for these communities, providing them with an outlet and an opportunity to relax and recharge when not at work.

We can't promote mental health on the one hand and deny working people the opportunity to take part in an activity that clearly has positive mental health outcomes on the other. The Committee received dozens of personal stories from ordinary Victorians who have told us the important role native bird hunting plays as they deal with the stresses and anxieties of everyday life. Looking after Victorians and allowing them to take part in the activities they love should be an integral focus as seen in the thousands of submissions to the committee that highlight the long and strong heritage of native bird hunting in the community, a heritage that spans back to my ancestors.

Many in the native bird hunting community have shared their personal stories about what this activity means for them, their families and their communities. It's clear that neglecting to effectively listen to and engage with community members involved in native bird hunting will have a negative impact on the many communities that we call home. Native bird hunting is more than just a sport or obscure hobby as some would portray it. It's a way of life, a part of their culture and identity.

This was a recurring theme in the thousands of submissions from ordinary Victorians. One submission outlined how as a rural veterinary nurse, native bird hunting was a family pastime. It continues to be a pursuit that her family does together, a recreation activity that teaches her children about the importance of responsible hunting practices and the sustainable harvesting of wild game. It is ordinary members of the Victorian community like this that show the importance of this practice as a family and social activity done responsibly with sustainable environmental considerations at its core.

At a time when cost of living pressures are acute for many regional communities, we don't have the luxury of closing an entire industry that contributes so significantly to rural communities. The committee received submissions and reports on the value of the native bird hunting industry. Of note was the report commissioned by the current Victorian Government in 2020 that estimates the contribution of the industry to the Gross State Product (GSP) as being over \$350m (2019). This industry employs more than 3100 Victorians in some of the most outlying regions of our state.

We can't let down the rural communities who rely on the tourism income from interstate and intra-state visitors for native bird hunting. Many people from these industries and these communities have reached out to me directly and contributed submissions, showing how tough they're doing it. There is simply a lack of other industries and economic alternatives that can replace the lost economic benefits caused by a ban on native bird hunting. This was explored in detail through the committee process however it was often framed as hunting to the exclusion of all other outdoor pursuits and recreation opportunities, not being explored in a complementary framework, including positive opportunities for First Nations people.

There is another way. We can prevent the 'closed' signs going up on the doors of many local rural businesses by simply addressing regulatory, compliance and enforcement concerns from the community through better practice and management. Management that adopts scientific and evidence-based approaches at its core, and management with adequately resourced compliance and enforcement.

Protecting Indigenous cultural heritage and practice

Hunting as a cultural practice and an expression of identity for Indigenous people in Victoria did not garner appropriate weight through the deliberation of the committee. Overwhelming evidence was provided by Traditional Owner Groups, and submissions by the First People of Victoria, showing the importance of hunting.

Traditional Owners have rights, interests, and responsibilities to care for Country that stem from their own systems of governance. Indigenous concepts around caring for Country often do not align with the approach taken through mainstream or non-Indigenous management of landscapes. Considering this, the current Victorian Government supported the development and adoption of the Traditional Owner Game Management Strategy, launched by Minister Thomas in March 2021.

The Federation of Traditional Owners best expressed the importance of hunting, game and wildlife management to the First Peoples of Victoria:

"Hunting, game and wildlife management is both a way of life and expression of identity for the Aboriginal people of Victoria. Traditional Owners within Victoria continue the cultural practices of their ancestors, particularly with respect to the animals they hunt as game." (Federation of Traditional Owners, submission 1,612.)

The importance of continuing these cultural practices was highlighted throughout many submissions by First Nations people:

"I am a proud Wurundjeri Man and have lived most of my life on Dja Dja Wurrung country. I am a Koori Court Elder and although I will retire soon, I currently serve my local community as the Justice Worker at the Bendigo and District Aboriginal Cooperative. Hunting and eating native fauna is a major part of my culture (dating back 60,000 plus years), as is sharing native game food with Community" (Mark Little, submission 665.)

“I am an Aboriginal woman with close cultural connections to Victorian traditional areas of country. It is vitally important to me to learn and maintain for future generations the cultural practices, including the women’s business practice of using duck feathers, to strengthen my connection to land and water” (name withheld, submission 10,394.)

These recommendations embody the wishes of Victorians, especially those in regional communities, and centralise the importance of traditional cultural practices to the identity of First Nations Victorians.

RECOMMENDATIONS

This report recommends the following:

RECOMMENDATION 1:

That the Victorian Government implements more stringent management, regulation and compliance in regard to the annual recreational native bird hunting season. That these strengthened provisions apply to all existing public and private land that is currently used for native bird hunting and that the further restrictions and protections are to be implemented as recommended in this report.

This recommendation is set in stark contrast with the majority report, which did not effectively engage with several thousand submissions from ordinary working Victorians, many from regional Victoria, outlining how the outdoor recreational pursuit of native bird hunting is important to them, their families and their communities. These submissions outlined the importance of their experiences in hunting native birds and how this hunting can be improved and strengthened through harnessing;

- Indigenous traditional knowledge and care of country;
- Stronger regulation;
- Stronger enforcement;
- Inclusion of traditional knowledge and local Aboriginal land managers; and
- Adherence to scientific and evidence-based game management in regulating and managing native bird hunting.

RECOMMENDATION 2:

The GMA must be supported to implement the outstanding action items related to native bird hunting and the lands used for native bird hunting as stated in the ‘*Traditional Owner Game Management Strategy*’ as released in 2020 and currently in place as a Victorian Government policy and hunting regulation strategy.

Evidence presented and further evidence made readily available to the committee by First Nations People was not given due consideration by members of the committee. The '*Traditional Owner Game Management Strategy*', developed and adopted by the Victorian Government, containing actions on how to make hunting a more ethical and environmentally sustainable practice was not given proper consideration and weight within the committee's deliberations.

The implementation of the actions set out within this strategy would lead to hunting practices being more consistent with the aspirations as outlined by Uncle Rodney Carter as a representative of a recognised Traditional Owner Group. Furthermore, the Committee failed to consider the future of our state and the growth of the Indigenous land estate under Native Title, future Natural Resource Agreements under the Traditional Owner Settlement Act and other opportunities such as the forthcoming Treaty.

RECOMMENDATION 3:

The Victorian Government must explore the involvement of First People's in the management of game reserves as a reflection of its commitment to the partnerships with Traditional Owners groups.

The Committee heard that Traditional Owners are seeking further opportunities for leadership and decision making on the management of game reserves within Victoria. Pilot programs funded under the Traditional Owner Game Management Strategy such as the example of the Tang Tang Swamp, highlighted the interest that Traditional Owners have in future management, restoration and employment opportunities that hunting on country presents. Increasing the statewide involvement of First Nations communities in the management of game reserves and having traditional land management practices being undertaken by Traditional Owners will significantly increase the health of these environments.

RECOMMENDATION 4:

That state game reserves, used for duck and quail hunting, be used for other outdoor recreational activities outside of the time specified by game management authorities for native bird hunting. This must be accompanied by appropriate investment in camping, boating and outdoor recreation related infrastructure.

Evidence to the committee often approached the competing uses for land from a 'winner takes all' standpoint, not exploring complementary or diverse activities and subsequent increased usage, a practice which already occurs in so many outdoor spaces in Victoria with other outdoor pursuits such as fishing, prospecting, bushwalking, trail bike riding and foraging amongst many others. There are several clear examples as ways forward to ensure that the Victorian community can benefit from the public use of game reserves outside of the defined hunting season permitted. This should also be combined with traditional land use and Indigenous land management practices.

RECOMMENDATION 5:

The GMA should receive further recurrent funding and resourcing to be able to check compliance adequately and effectively with native bird hunting requirements.

A consistent theme of the evidence presented to this inquiry was that game management regulators were underfunded and suffered a lack of recurrent resourcing. Given the recommendations for added measures of regulation, compliance and enforcement. Game management authorities need this support to be able to carry out their duties effectively.

A stronger game management regulator will allow for proper compliance to be carried out throughout Victoria and significantly decrease illegal hunting activity and behaviours to occur.

RECOMMENDATION 6:

The Victorian government strengthened the requirements to be able to receive endorsement for duck and quail hunting licences by instituting a yearly competency and knowledge test for duck and quail hunters in addition to making the waterfowl identification test a yearly requirement.

Identification is crucial, knowledge should be kept current and bird species may be deemed off limits for hunting as evidence demands. Ensuring that these bird species are not targeted by hunters can be achieved through an increase in hunter competency training that would occur yearly before the start of each season.

Further knowledge of endangered and off limit species along with good practice hunting behaviours being a mandatory prerequisite for a hunter to be allowed to hunt native birds will see the number of at-risk bird species injured during hunting decrease significantly.

RECOMMENDATION 7:

Membership of government approved native bird hunting clubs which have mandatory training as a component of membership being stipulated as a necessary requirement for native bird hunters.

Given the majority recommendation to effectively end native bird hunting, the Committee then limited its exploration of effective models of training and education. A model that I wished to explore includes the further integration of mandatory training into hunting clubs to appropriate training as recommended in recommendation 6 and the majority report. Furthermore, compulsory membership of a government approved club may enhance hunter knowledge and compliance rates. Hundreds of submissions detailed native bird hunting as a family and community activity and reinforcing this with mandatory club membership will further cement a strong

community knowledge base and further embed responsible native bird hunting practices through training.

Conclusion

I thank the many thousands of people who so thoughtfully and meaningfully engaged in the work of the Committee and submit this report, finding and recommendations to shape the path ahead for the regulation and practices of recreational native bird hunting in Victoria.

Sheena Watt, MLC for Northern Metro Region
Committee Member - Legislative Council Select Committee Inquiry into Victoria's Recreational Native Bird Hunting Arrangements.

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INQUIRY INTO VICTORIA'S RECREATIONAL NATIVE BIRD HUNTING ARRANGEMENTS

REPORT OF THE LIBERALS and NATIONALS



Prepared by the Liberals and Nationals

August 2023

Cover: Heart Morass near Sale where almost 3,200 acres, worn down by a century of stock grazing and salinity, was brought back to life as a wetland primarily by volunteers. Since the first land was purchased in 2006, over 50,000 native trees have been planted, 20 tonnes of introduced (and invasive) carp have been removed, and seeds have been collected from over 50 native plant species for revegetation, thanks to hunters and the Heart Morass project partners Field & Game Australia, Watermark Inc., Bug Blitz, West Gippsland Catchment Management Authority, and the Hugh D.T. Williamson Foundation. Field & Game Australia formed the Wetlands Environmental Taskforce (WET) in 2002 with the purpose of purchasing, restoring and maintaining wetland habitats, rehabilitating ecosystems and restoring biodiversity. Other WET projects include the Australian National Hunting Archive on the role of hunting in Australia's history and culture; the project at Connearre, where Field & Game Australia volunteers have constructed a centre for research into wetland habitats, waterfowl nesting and breeding habits, as well as educating hunters and the public on the benefits of wetland habitats and hunter-led conservation efforts. (*Field & Game Australia webpage 2023*).

"Habitat is key - If you have habitat, you have birds."

Dr Brian Hiller (Professor of wildlife ecology Bemidji State University, Minnesota)

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SUMMARY RECOMMENDATIONS

Summary

Native game hunting in Victoria is a sustainable activity based on science and conducted in a safe and responsible way. Victoria's recreational native bird hunting is highly regulated and under the Sustainable Hunting Action Plan (SHAP), hunter education, animal welfare and research are being strengthened.

The Game Management Authority (GMA) is responsible for regulating game hunting in Victoria. GMA has made significant progress implementing changes based on the findings of the independent Pegasus report in 2017. The GMA has undertaken a comprehensive restructuring and has the appropriate governance and policies in place to manage conflicts of interest. The majority of the GMA's compliance and enforcement resources are deployed ensuring public safety at a range of locations where hunters and rescuers are both in attendance. This is in line with the GMA's statutory requirements.

The majority of surveyed respondents (56% to 61%) support a continuation of duck hunting under new rules to protect native species, including 39% of Labor voters who are opposed to a ban on duck hunting in Victoria. There is strong union support for the continuation of duck hunting. Unionists acknowledge the significant impact on wellbeing that native bird hunting has as an outdoor recreational activity for hunters.

Australia's peak hunting body runs accredited training programs on the use of firearms and game bird hunting, providing a sound pathway to licencing of game bird hunters. Resources are in place to train and assess native game bird hunters in all aspects of the activity and implement any new training requirements that may be required, including training in the protection of cultural heritage. We respect the importance of identifiable Aboriginal Cultural Heritage sites on public wetlands and recognise the value in improving hunter and community education to preserve sites.

Prior to ruling on the annual hunting arrangements, the Victorian Government is provided with output from a scientifically based interim harvest model designed to deliver scientifically based guidelines for the upcoming season. This model uses aerial surveys, priority wetland counts and the amount of water in the landscape over the preceding three year period in south-eastern Australia.

An open duck hunting season lasts no more than 12 weeks between March and June and avoids the breeding and moulting cycle, and typically lasts about 10 weeks, but was only 5 weeks in 2023. For the 2023 duck season, the Minister for Outdoor Recreation ignored the GMA Board recommendations based on the scientific Interim Harvest Model. GMA recommended a full season length season (15 March to 12 June), but with a reduced daily bag limit of only four ducks per day.

Hunting has little impact on game bird populations because mortality impacts from hunting, predation, starvation, malnutrition and disease are not additive but are compensatory. Competition for food is often reduced when hunting or predators remove some animals from the population, and therefore fewer animals die from starvation, malnutrition, sickness or disease.

Victoria's Game Management Authority reports exceptionally high compliance with regulations - 99.9% for duck hunting and 100% for quail in 2022.

In 2019 Victorian hunters contributed \$356 million and 3,138 jobs to the Victorian economy with most in regional Victoria. If native bird hunting is banned, some regional towns that are particularly reliant on hunting expenditure would be adversely affected. The areas of regional Victoria that benefit from native bird hunting include many regional communities that have been adversely affected by contraction in economic activity caused by the Andrews governments forest, energy and water policies.

The Victorian Government receives about \$4 million pa from game licence revenue **plus** another \$4.4 million in hunter firearm licence revenue – total \$8.4 million from 58,000 licenced hunters.

Loss of wetland habitat is the key issue affecting waterbird populations and hunting has a very small effect that is considerably overridden by loss of habitat. Managing environmental flows in the Murray-Darling is required to improve waterbird habitat. We need to explore how we may engineer both improved flood mitigation and harvest the water from damaging peak floods and use it to enhance environmental flows.

In Victoria duck hunting is sustainable and regulated according to an Adaptive Harvest Model based on good science. Hunting does not put a dent in the population given the biology of ducks – they are prolific breeders.

There is no scientific basis for changing the length of the hunting season (as the Minister did for the 2023 season). It is best to just change the hunting bag limit, which has been shown in other countries to be an effective way of regulating hunting.

Ducks reproduce at an early age, have large broods with no density dependence, and are less affected by loss of habitat. Wood ducks are taking over farm dams and golf courses.

Flood and drought cause an ‘episodic irruptive boom-bust cycle of waterfowl’. In boom flood times chestnut teal or grey teal or black ducks may double brood and produce up to 18 ducklings to fledging age, that are likely to die from starvation, disease or predation when the bust comes. Regulation of the harvest in the busts periods (e.g. lower bag limits) is an effective way to reduce the impact on core breeding populations.

Native game bird hunting does not pose an added threat to non-target species because licenced hunters are trained to take care to avoid impact on non-game species.

Hunting organisations and animal welfare groups have established and agreed on a Wound Reduction Action Plan. The cohort of invested stakeholders included Field & Game Australia - Victoria, Sporting Shooters Association Australia, Beretta Australia, RSPCA and more. They presented the Plan to the Minister for Agriculture in September 2022, and the newly created, Minister for Outdoor Recreation in December 2022, for approval and implementation.

Field & Game Australia has a long and proud history of educating and engaging hunters to reduce the occurrences of unintentional wounding. Specialists in the fields of ecology and wildlife management agree that this is the most effective way to drive improvements in hunting outcomes.

Protestors should exercise their right to protest from the shore and not directly enter active hunting areas and put themselves and hunters at risk. Protesters should remain at least 100m from any hunter.

The economic benefit from game bird hunting is unlikely to be replaced by nature-based tourism. Nature-based tourism operations like Winton Wetlands are yet to be economically sustainable without significant Victorian Governments grants. Winton Wetlands 2021-22 annual report shows a loss of \$542,000 despite government grants totalling \$1.32 million. The combined impact on the ‘public purse’ being \$1.86 million in one year.

Volunteer hunting organisations such as Field & Game Australia have demonstrated a great track record in voluntarily improving wetland habitat and breeding of wildlife across Victoria. Examples are Connewarre Wetland, near Geelong and Heart Morass, near Sale. This valuable volunteer resource should be encouraged and supported. These hunter–volunteer conservationists, have contributed a considerable amount to conservation and restoration projects across many Victorian wetlands.

For millennia Traditional Owners hunted for sustenance and for connection to country. In doing so they managed and respected a renewable resource.

Non-native invasive species are a threat to water birds. DEECA and Parks Victoria have been unable to deliver effective control of non-native invasive pests that threaten native wildlife and habitat, due to inefficiencies, including managing a rural operation with a workforce that is predominantly city-based.

Recommendations

Implement a consistent, balanced, and permanent native game bird hunting season based on a robust and defensible scientific model to set the season and retain Traditional Owner hunting rights.

That the Victorian Government continues the annual recreational native bird hunting open season on public and private land, under regulations administered by the Victorian Game Management Authority (GMA) using the Interim Harvest Model and eventually the Adaptive Harvest Model (within three years). The hunting regulations are based on sound science and the GMA report a high degree of compliance.

The Game Management Authority should continue with its intended purpose as an independent authority responsible for the regulation of game hunting, through research, education and enforcement, to achieve responsible and sustainable game hunting in Victoria. State Game Reserves should continue to be used and maintained for their intended purpose which is sustainable hunting and conservation.

The Victoria Government should optimise the use of the resources of relevant agencies to ensure there is active, adaptive and accountable management on all public land, to address the broader threats of bushfires, invasive species and adverse climatic events such as droughts and floods. Optimising resources includes decentralising the Government's city-based workforce.

The Victorian Government should review the process to report damage or destruction of Aboriginal cultural heritage and introduces additional protections for these sites.

In addition to passing the Wildlife Identification Test, hunters should participate in an Aboriginal cultural heritage awareness education program.

The Victorian Government should immediately approve and fund the implementation of the Waterfowl Wounding Reduction Action Plan, which has bilateral support from hunting and animal welfare organisations.

The Victorian Government should continue to use the Interim Harvest Model (IHM) and fully fund the transition to an Adaptive Harvest Model (AHM) within three years.

Future game bird hunting seasonal arrangements should be determined based on the Interim Harvest Model (IHM and eventually AHM) recommendations, and the arrangements announced no later than the 31st of December in the year preceding the upcoming game duck season.

The Victorian Government implements additional measures to restrict the capacity of protesters to hinder the lawful conduct of duck hunters.

That the Victorian Government introduces a new civil offence for non-hunting persons (i.e. protesters) entering a wetland whereby they are within 100 metres of a hunter.

The Victorian Government explores ways to deliver improved environmental flows that enhance waterfowl habitat, and if possible in conjunction with much needed improvement in flood mitigation.

The Victorian Government assist volunteer hunting organisations such as Field & Game Australia with their efforts to improve wetland habitat in Victoria, by way of grants such as funding some of the consumables required.

1. About the Inquiry

1.2 Terms of Reference

A Select Committee of nine members be established to inquire into, consider and report by 31 August 2023 on Victoria's recreational native bird hunting arrangements, including but not limited to —

- (a) the operation of annual native bird hunting seasons;
- (b) arrangements in other Australian jurisdictions;
- (c) their environmental sustainability and impact on amenity;
- (d) their social and economic impact.

Committee Chair Ryan Batchelor said, "This Inquiry is looking at the operation of annual native bird hunting seasons here in Victoria, as well as arrangements in other Australian jurisdictions." "We'll also examine the environmental sustainability of the practice, it's impact on amenity and the social and economic consequences."

The Committee received over 10,000 submissions to the Inquiry including the 'dumping' of submissions on an 'industrial scale' by those opposed to current arrangements.

1.2 Committee Membership

Ryan Batchelor – Chair, Labor Party

Michael Galea – Deputy Chair, Labor Party

Melina Bath – The Nationals

Bev McArthur - Liberal Party

Evan Mulholland – Liberal Party

Georgie Purcell – Animal Justice Party

Jeff Bourman – Shooter, Fishers and Farmers Party

Sheena Watt – Labor Party

Katherine Copsey – Greens Party

1.3 Forward by the Liberals and Nationals

The Liberals and Nationals members on the Select Committee Inquiry into 'Victoria's recreational native bird hunting arrangements', were motivated to prepare this Minority Report because of major concerns with the Committee Report.

Our concerns were primarily to ensure balance, equity and fairness - the cornerstone of a democratic society. We have strived to ensure that our findings are based on scientific and socioeconomic evidence and expert opinion backed with factual data.

One of the challenges for rural and regional Victoria has been decisions made in Spring Street based on the demands of minority but noisy activists, focus groups, and electoral expediency. Many of these 'city centric' decisions have resulted in a raft of policies that have had devastating social, economic and environmental impacts on rural and regional communities (e.g. misguided forest, fire, flood and energy policies). We have tried to ensure that the voice of rural and regional Victorians as well as metropolitan Melbourne are heard.

We have tried to ensure that key submissions are used in decision making and that the findings of knowledgeable and experienced experts have been captured. In many cases, rather than paraphrase points made in submissions or hearings, we have quoted verbatim key points, taking care to ensure context.

We have also strived to ensure that our recommendations are consistent with a balanced approach to ecologically sustainable development, balancing the environmental, economic and social dimension of decision making. Without balance you are unable to deliver equity and fairness and you increase the risk of adverse outcomes.

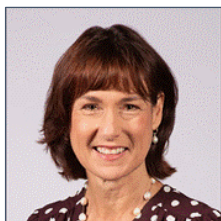
Based on submissions and testimony it became obvious that the cornerstone of conservation of water birds in Australia **is sufficient habitat** and more can be done to improve wetland habitat. We also heard of the **considerable voluntary work undertaken by hunting organisations to improve water bird conservation**.

Rural and regional Australia has always rode on the back of hard working volunteers. At the Inquiry evidence in submissions and testimony spoke of the substantial voluntary contribution duck hunters make to the establishment and maintenance of wetland habitat and breeding conditions for water birds.

This is a prime example of how making something 'valuable' helps with conservation, not just valuable in a monetary sense but valuable spiritually. Because duck hunting is a valuable recreational activity, volunteers pitch in and develop new wetlands and maintain them essentially without using the public purse.

Volunteers have a vested interest in enhancing wetlands, improving conservation outcomes and in ensuring compliance with hunting regulations. Why - because they have a vested interest in being able to continue their recreation. They have 'skin in the game'. Ban duck hunting and you risk losing this. We applaud volunteer effort and call on the Victorian Government to encourage this contribution.

The Victorian Government should not be banning duck hunting, but working out ways to harness hunter contribution to enhance water bird habit and ensuring hunter compliance with regulations.



Melina Bath
The Nationals

Melina Bath



Evan Mulholland
Liberal Party

Evan Mulholland



Bev McArthur
Liberal Party

Bev McArthur

2. Introduction

This report has been prepared by the Liberals and Nationals to ensure that sound and balanced commentary, findings and recommendations have not been ignored, and that they rightly inform policy decisions.

We heard time and time again that habitat is the main constraint to the conservation of waterbirds – if you have habitat you have birds. Below are some photos of the Heart Morass before volunteer hunters became involved (2007) and after their efforts in 2023 (**Figure 1**).

Figure 1: Heart Morass before volunteers established the wetland (LHS) and afterwards (RHS)¹



¹ Source Field and Game Australia.

3. Regulation of recreational native game bird hunting in Victoria

3.1 Legislative control of native game bird hunting

Hunting in Victoria is one of the most highly regulated in Australia, in relation to firearm ownership and accountability. Subsequently, hunters are subjected rightly to a host of licencing and regulatory scrutiny.

The Wildlife Act sets the rules around how we protect, conserve, sustainably manage and use wildlife in Victoria. The Act outlines the objectives and scope for wildlife in Victoria and a best-practice regulatory framework for achieving its objectives. It recognises and protects the rights and interests of Traditional Owners and Aboriginal Victorians around wildlife and their role in decision-making, along with the best way to encourage compliance with the Act and appropriate deterrence and punishments.²

In Victoria, native game bird hunting, such as sanctioned duck species and stubble quail, is legal and is controlled by the Wildlife (Game) Regulations 2012 which sets out the basis for a legislated season and daily limits on harvest. This legislation stipulates that birds shot in Victoria MUST be collected, and at least the breast meat taken for human consumption. So not only do hunters eat what they harvest – they are REQUIRED to do so by law! Field & Game Australia firmly refutes any reference to hunting as “sport.” This is incorrect and misleading. Sporting shooting occurs when firing at targets for scores, not ducks for food.²

The Ramsar Convention 1975 defines WISE USE as ‘the sustainable use of wetland resources in such a way as to benefit the human community while maintaining their potential to meet the needs and aspirations of future generations. Field & Game Australia and its members understand and comply unquestionably with the intent of the Ramsar Convention 1975 and dedicate significant resources (financial, physical and intellectual) towards its full compliance.²

3.2 Regulation restricts an ‘open’ duck season to no more than 12 weeks

Public land in Victoria covers approximately 8 million hectares in area, which is approximately one third of the State. It is made up of over 110,000 parcels which form parks, reserves and areas of State Forest.³

State Game Reserves occupy 75,000 hectares or less than 1% of Victoria’s total public land.

An open duck hunting season lasts no more than 12 weeks between March and June and avoids the breeding and moulting cycle, and typically lasts about 10 weeks, but was only 5 weeks in 2023.

For the 2023 duck season, the Minister for Outdoor Recreation ignored the GMA Board recommendations (based on the Interim Harvest Model) for a full season length with a daily bag limit of four ducks per day, commencing on Wednesday 15 March and ending on Monday 12 June.

FINDING 1: The native game bird hunting season is short (less than 12 weeks) and during the ‘open season’ the Victorian public still have access to almost all of the 8 million hectares of Crown land. In 2023 the ‘open season’ was reduced to 5 weeks by the Minister for Outdoor Recreation, who ignored expert opinion and the recommendation from the Game Management Authority to just reduce the bag limit, consistent with expert advice.

² Field and Game Australia Submission No 1872.

³ www.forestsandreserves.vic.gov.au/land-management/managing-crown-land.

3.3 Victorian Game Management Authority regulate game bird hunting

In Victoria game hunting is closely regulated by the Game Management Authority (GMA) who reported⁴:

“We aim to ensure game hunting in Victoria meets community expectations as a sustainable and well-regulated activity. Sustainable game hunting is based on science and conducted in a safe and responsible way.”

“As part of the newly funded Victorian Government’s Sustainable Hunting Action Plan 2021-2024 (SHAP), announced in the 2021 State budget, the Game Management Authority (GMA) has a number of responsibilities across the areas of education, animal welfare and research. The GMA is already making progress towards delivering on the SHAP, including developing a suite of education modules aimed at educating and training new hunters on firearm safety, hunting laws and methods. The GMA is also enhancing hunter education for existing experienced game hunters wanting to increase their knowledge of hunting laws, responsible hunting methods and firearm safety”.

“Reducing waterfowl wounding is a strategic priority for the Game Management Authority (GMA) and is a key action in the Victorian Government’s SHAP. A draft Waterfowl Wounding Reduction Action Plan was endorsed by the GMA Board in June 2022 and has been submitted to government for consideration.”

In hearings David LAIRD Hunting Development Manager, Sporting Shooters Association Australia (Victoria) supported the waterfowl wounding reduction action plan and the adaptive harvest model:

“The association does consider the waterfowl wounding reduction action plan is a critical part of the logical path forward for duck hunting in Victoria. It is informed by international best practice, which is not a bad thing, but it is a uniquely Victorian plan developed by an expert panel covering the broad range of interests and chaired by an acknowledged impartial expert. The other critical path forward is the continued development of the interim harvest model leading into an adaptive harvest model.”

In hearings Lucas COOKE, Chairman, Field & Game Australia commented on the favourable impact of good hunting practises:

“We have certainly seen in the last 25 years an advancement in information technology in particular; we have seen a lot more emphasis on certain good, high-level hunting practices to ensure that you bring birds in closer and ensure that you do everything that you possibly can to make good decisions.”

During 2021-22 the Game Management Authority (GMA) provided advice to the Victorian Government on several matters relating to regulation of game hunting, including:

- 2022 duck season arrangements, which included use of the interim harvest model to inform the daily bag limit.
- Closure or partial closure of six wetlands for 2022 duck season.
- Re-opening of one wetland to duck hunting during the 2022 duck season.
- Prohibition of electronic quail callers for the 2022 stubble quail season.
- Reform of the sunseting Wildlife (Game) Regulations 2012.

FINDING 2: Game hunting in Victoria is a sustainable activity based on science and conducted in a safe and responsible way. Recreational native bird hunting is highly regulated and under the Sustainable Hunting Action Plan (SHAP), education, animal welfare and research are being strengthened.

⁴ Game Management Authority Annual Report 2021-22.

3.4 Compliance with regulations for recreational native game bird hunting is high

Of the 358 matters assessed by the Game Management Authority (GMA) in 2021-22, those pertaining to duck hunting were only 14% of the total and quail hunting only 2% of the total.

Matters relating to deer and illegal hunting were 49%, kangaroos 8%, animal cruelty/welfare 4%, hunting with hounds 3%, protestors 2% and non-game hunting related matters 18%⁴.

RECOMMENDATION 1: The Game Management Authority should continue with its intended purpose as an independent authority responsible for the regulation of game hunting, through research, education and enforcement, to achieve responsible and sustainable game hunting in Victoria.

For the 2022 duck season the Game Management Authority (GMA) reported 99.9% hunter compliance with the legislated daily bag limit based on attending 641 wetlands with numerous wetlands receiving multiple visits and checking 1,253 Game Licences and 979 hunter bags⁴.

For the 2022 quail season the Game Management Authority (GMA) reported 100% hunter compliance with the legislated daily bag limit based on conducting 35 dedicated quail patrols and checking 31 Game Licences and hunter bags⁴.

FINDING 3: The Victorian Game Management Authority responsible for regulating game hunting in Victoria report exceptionally high compliance with regulations – compliance was 99.9% for duck hunting and compliance was 100% for quail.

3.5 Hunters require game and firearms qualifications and licences

Regulation in place ensure new and existing hunters are prepared and aware of their responsibilities because there is a significant upfront commitment prior to being able to partake in a live field hunting experience.

Hunters in general, but in particular those who hunt native game birds, are highly regulated and acutely aware of their obligations. They willingly subject themselves to a rigorous process including:

- Basic firearms licence training course and test which includes a thorough police check and takes a minimum of three months to complete.
- Completion of a 'permit to acquire' in order to purchase and own a firearm which comes with yet another round of validation and an additional 28-day approval period.
- Duck hunters must specifically undergo a Waterfowl Identification Test (WIT) that requires considerable financial cost.
- The time commitment - in excess of 100 hours to prepare - requires a significant investment by hunters.
- Game licence application and the associated costs.
- Once successful, becoming beholden to numerous agencies including Victoria Police, GMA, Parks Victoria and DEECA.

In response to a question in hearings David LAIRD, Hunting Development Manager, Sporting Shooters Association Australia (Victoria) offered information on improvements to firearm training and licensing:

"We do a lot of education in gun safety. We run a practical firearms training program for new shooters, and that is part of the pathway for people to get their shooters licence. We have been running that for about the last five years. We started it initially as a firearm safety course to teach people how to competently use firearms. Victoria Police then came on board and recognised it as an approved safety course for the purposes of getting a shooters licence."

We have subsequently become a registered training organisation, and that course is a nationally recognised course. We also do a lot of training. We run courses for various corporate entities teaching them how to safely use firearms. We are involved in a partnership with the Game Management Authority running hunter education courses with them. We have obviously got the shotgun education program that we have been running for quite a few years, and we have run some pilot programs with GMA on duck and quail hunting and also deer hunting for newly licensed game licence holders.”

FINDING 4: Australia’s peak hunting body runs accredited training programs on the use of firearms and game bird hunting, providing a sound pathway to licensing of game bird hunters.

3.6 The science supports current regulation of game bird hunting in Victoria

During hearings in response to this question from Melina BATH: “The interim harvest model you have both worked on and formatted – how robust is the science and are you convinced of the sustainability of this model,” Professor Marcel KLAASSEN offered the following reply:

“Yes,……. Regarding robustness, I think it is robust. I think we did a good job there.”

During hearings Professor Marcel KLAASSEN elaborated:

“In 2021 Richard and I were tasked to develop a model to guide the duck harvesting in Victoria, and as Richard just explained, such a model needs to take into consideration not only the numbers of ducks in Victoria but also outside of Victoria and also the breeding conditions, both in Victoria and outside Victoria, because ducks have wings and they do migrate over long distances.”

“Based on the aerial surveys and the so-called priority wetland counts, which are in Victoria – these are counts, just before the hunting season, of a number of wetlands in Victoria – those counts, the aerial surveys, the priority wetland counts and water in the landscape over a three-year period throughout all of south-eastern Australia are being taken into consideration to end up with these five indices. We proposed this model, and it was accepted. So for the 2022 hunting season and this year’s hunting season the model was used to advise, ultimately, the minister to make a decision on the hunting arrangements for 2022 and this year.”

FINDING 5: Prior to ruling on the annual hunting arrangements, the Victorian Government is provided with output from a scientifically based Interim Harvest Model designed to deliver scientifically based guidelines for the upcoming season. This model uses Aerial surveys, priority wetland counts and the amount of water in the landscape over a three year period in south-eastern Australia.

RECOMMENDATION 2: That the Victorian Government allows the continuation of the annual recreational native game bird hunting open season on public and private land, under regulations administered by the Victorian Game Management Authority.

3.7 Comments from Hunters.

Organisations and entities with ‘skin in the game’ can make a profound impact on delivering improved environmental, social and economic outcomes and deliver spill-over benefits to the community as a whole, not just the members of the entity. The Inquiry was presented with evidence of the considerable improvements to the Heat Morass and Lake Connemara undertaken by volunteers belonging to Field & Game Australia and the Sporting Shooters Association of Australia. Testimony was also provided on the importance of hunting as a connection with the land.

3.7.1 Comments from Traditional Owners

Rodney CARTER, Chief Executive Officer of **Dja Dja Wurrung Group** made some very important points in the hearings⁵. Mr CARTER believed that others should have the opportunity to hunt:

"I think – with the brilliant respect that the state has afforded First Nations people – that my descendants and I will enjoy hunting for all time. If the inquiry and the government can somewhat see it in their mind to afford other Victorians the opportunity – and visitors to our homelands – to be able to enjoy something similar, I think truly it can be managed."

"I think more broadly to the importance of being a hunter – a hunter as such holding a very significant place within society, within a family, as a provider of sustenance to people. We also describe ... the importance for us as First Nations people – but extending that to us as humans – of the need for us actually to be in landscape, to be at place, to be connected..."

Mr CARTER explained to the Committee that hunting created a connection to the environment and a respect for the animals being hunted. He believed it would be unfortunate if Victorians who are not traditional owners would no longer be able to continue the practice:

"I think it is extremely unusual in that it is a legal or licensed activity at the moment, which for my people, in a sense, is something we will enjoy no matter what. We think it is important in our advocacy and leadership that we support the continuance of something that is culturally significant to us that other Victorians enjoy. There is so little, I think, as Victorians, that we can enjoy of what I and what my ancestors enjoyed."

Mr CARTER believed that it was important to educate hunters at wetlands that have Aboriginal Cultural Heritage sites about their importance:

"I think what happens through the education is just a greater awareness and appreciation of that value that now is a little bit transferable to me as a person and/or a people. So you are there, say, hunting as an example at a state game reserve, now you learn something about cultural heritage. I would like to think then that you are better for that and then indirectly it is better for me and my people because the opportunity might not have arisen otherwise."

FINDING 6: Hunters identify the importance of being connected to the landscape through an ancient and traditional pursuit.

3.7.2 Comments from Field & Game Australia

Field & Game Australia strongly advocated for a consistent, balanced, and permanent native game bird hunting season based on a robust and defensible scientific model to set the season. Some key points from their submission⁶ are:

- Compelling, independent evidence has been provided to confirm that hunting and conservation can and does co-exist, not only in Victoria, but in the majority of OECD countries across the world. Hunting is embraced by progressive societies and not vilified as an outdated activity or pastime but a necessary practice.
- The Victorian native game bird hunting season is heavily regulated by domestic and international laws and conventions currently in place. Victorian hunters are amongst the most compliant and regulated members of our public.
- Ducks can be legally hunted or controlled in every state of Australia under appropriate permits or exceptions.

⁵ Mr Rodney Carter, Chief Executive Officer, Dja Dja Wurrung Group, public hearing, Transcript of evidence Melbourne, 29 June 2023.

⁶ Field and Game Australia (2023). Submission No 1872.

- Recreational hunting does not threaten native bird abundance and that, overall, regulated duck hunting is good for populations. It promotes engaged, pro-active hunters who take ownership of the resources and improve animal welfare and management.
- Hunter-led conservation practices benefits all species, flora and fauna, not only native game birds.
- This is why the Ramsar Convention 1975 recognises hunting as a 'wise use' of natural environments.
- Victoria's wetlands are so important that they are internationally recognised under the Ramsar Convention in relation to wetlands. Victoria's Ramsar sites are home to as many as 1,300 species of native plants and 450 species of native animals, including more than 100 species of waterbirds of which hunters hunt only eight game species.
- Remove the political subjectivity of native game bird seasons and implement a scientific season setting process.
- End the farce of "wildlife rescue" in Victorian wetlands by implementing safe and sound protocols for protesters.
- The Game Management Authority should (like the Victorian Fisheries Authority) proactively grow hunting in Victoria and the associated economic and social benefits (for regional communities).

3.7.3 Comments from the Sporting Shooters Association of Australia

The Sporting Shooters Association of Australia has a vested interest in maintaining their 'social licence' and made specific representations that support good regulation of native game bird hunting. SSAA asked that the Select Committee should:

- Acknowledges that native bird hunting is a well-regulated, beneficial activity that should continue.
- Acknowledges that the Game Management Authority (GMA) has undertaken a significant restructuring since the release of the Pegasus Report in 2017 and that the GMA has appropriate governance and policies to manage actual and perceived conflicts of interest.
- Acknowledges that the Waterfowl Identification Test (WIT) must be successfully completed before hunters are licenced and clarify that the assertion that licenced hunters have not successfully completed the WIT is false.
- Note that modifying seasonal bag limits is the most effective method of manipulating the total harvest and that altering the length of the hunting season has an unnecessary negative impact.
- State that a well-regulated game hunting season in Victoria in the twenty-first century has no demonstrable impact on the populations of game species.
- Recommend GMA develop a transparent and objective procedure for managing the potential impacts of game duck hunting. Stakeholders, such as hunting organisations and Birdlife Australia, should be involved in this process, and closure of public wetlands should be a last resort.
- Recommend that the Minister for Outdoor Recreation immediately endorse, fund and implement the Waterfowl Wounding Reduction Action Plan.
- Recommend that the Victorian Government acknowledge Victoria's position as Australia's best practice game management leader.
- Recommend the Government continue using the Interim Harvest Model (IHM) and fully fund a transition to an Adaptive Harvest Model within three years. Future seasonal arrangements should be determined based on the IHM recommendations and announced via the GMA website no later than the 31st of December in the year preceding the upcoming game duck season.
- Recommend that the Government restricts protestors' hindering lawful duck hunting.
- Recommend that future economic reports remove speculative and irrelevant questions about substitutability. Alternatively, the committee could recommend that every government-sponsored industry economic report include similarly framed questions about substitutability.

FINDING 7: The Game Management Authority (GMA) has made significant progress implementing changes based on the findings of the Pegasus report in 2017, including a significant restructuring and ensuring appropriate governance and policies in place to manage conflicts of interest.

RECOMMENDATION 3: That the Victorian Government immediately endorses and funds the implementation of the Waterfowl Wounding Reduction Action Plan.

RECOMMENDATION 4: The Victorian Government continues to use the Interim Harvest Model (IHM) and fully fund a transition to an Adaptive Harvest Model (AHM) within three years.

RECOMMENDATION 5: Future game bird hunting seasonal arrangements should be determined based on the Interim Harvest Model (IHM) recommendations and announced no later than the 31st of December in the year preceding the upcoming game duck season.

RECOMMENDATION 6: The Victorian Government implements additional measures to restrict the capacity of protesters to hinder the lawful conduct of duck hunters.

3.8 Training by Sporting Shooters Association of Australia

In response to a question on notice on current training offerings, the Sporting Shooters Association of Australia (SSAA) replied indicating a high capability of professional training. SSAA Victoria's training department offers both accredited and non-accredited courses covering a range of needs and recreational and occupation-specific obligations. Courses include:

Recreational

- Course in Practical Firearm Training (RTO accredited; recognised by Victoria Police)
- Firearm Safety Course (recognised by Victoria Police)
- Introduction to deer hunting (collaboration with GMA)
- Advanced deer hunting
- Introduction to duck and quail hunting (collaboration with GMA)
- Shotgunning Education Program / Gamebird Hunting Essentials
- Waterfowl Identification Course training
- Advanced centrefire rifle shooting
- Advanced shotgun shooting

Occupational

- Humane dispatch of animals (RTO accredited)
- Use of firearms on an airfield (RTO accredited)
- Practical Firearm Training Course for Airport Officers
- Practical Firearm Training Course for Council Officers
- Practical Firearm Training Course for Zoo Rangers
- Commercial Kangaroo Firearms Proficiency Accreditation Course

Internal

- Range officer training
- Conservation and Pest Management Accreditation (collaboration with Parks Victoria)
- Thermal optics training (collaboration with Parks Victoria)

In response to a question on notice on the availability of trainers and training locations, the Sporting Shooters Association of Australia (SSAA) replied indicating that they have good training facilities:

- SSAA Victoria operates a Registered Training Organisation (RTO). The Association employs an RTO Manager, a Training Development Manager, and an Administration Officer full-time; together with sixteen casual trainers (Certificate IV in Training and Assessment qualified) across their network.
- In addition, SSAA Victoria has a similarly sized pool of experienced trainers who do not hold this formal qualification.
- We currently operate, or have access agreements with, fifteen shooting facilities located across Victoria that are suitable for shotgun training.
- SSAA Victoria's new, purpose-built training centre at the Eagle Park complex (near Avalon Airport) is due to open later this year. Classroom-type facilities are also available at most of the Association's other venues.

In response to a question on notice on the cost of training, the Sporting Shooters Association of Australia (SSAA) replied indicating that they offer training at low cost (excluding Waterfowl Identification Test WIT that requires over 100 hours and considerable financial cost):

- As a not-for-profit association, SSAA Victoria offers training to recreational hunters and shooters at a low cost.
- The Association's Practical Firearm Training Program (PFTP), for example, is an intensive, one-day training course aimed at ensuring that new firearm licence holders are suitably skilled to use firearms safely and effectively. PFTP is labour and resource intensive (2 x Trainers, plus 1 x Range Officer administers each practical session). The cost to participants is just \$160.
- SSAA Victoria has a proven history of delivering quality training for recreational hunters at a minimal cost.

In response to the question on notice "*State of preparedness to run additional training programs for Native Bird Hunting should that become a requirement of licensing*", the Sporting Shooters Association of Australia (SSAA) replied indicating that they are well prepared to provide additional training programmes:

- SSAA Victoria is well positioned to quickly bring online new training offerings and make them available across metropolitan Melbourne and regional Victoria.
- Whilst longer lead times are ideal, some courses have previously been conceived, developed, and successfully delivered within just a few months.
- The Association stresses that if additional training programs were to become a requirement of obtaining a Game Licence, the focus should be on 'training and assessment' rather than simply 'proficiency testing'. Best practice training courses, such as the Shotgunning Education Program and Practical Firearms Training Program, go beyond testing a baseline level of marksmanship or theoretical knowledge. Put simply; testing is an event; assessment is an educative process.

FINDING 8: Resources are in place to train and assess native game bird hunters in all aspects of the activity and implement any new training requirements that may be required, including training in the protection of cultural heritage.

3.9 Protection of cultural heritage values

We respect the importance of identifiable Aboriginal cultural heritage sites on public wetlands and recognises the value in improving hunter and community education to preserve sites.

Mr CARTER from the Dja Dja Wurrung Group in testimony⁵ shared his vision of the value of education for hunters at wetlands to recognise and better understand Aboriginal cultural heritage sites.

“I think what happens through the education is just a greater awareness and appreciation of that value that now is a little bit transferable to me as a person and/or a people. So, you are there, say, hunting as an example at a state game reserve, now you learn something about cultural heritage. I would like to think then that you are better for that and then indirectly it is better for me and my people because the opportunity might not have arisen otherwise.”

RECOMMENDATION 7: That the Victorian Government reviews the process to report damage or destruction of Aboriginal cultural heritage and introduces additional protections for these sites.

RECOMMENDATION 8: In addition to passing the Wildlife Identification Test, hunters should participate in an Aboriginal cultural heritage awareness education program.

4. Community support for native game bird hunting

4.1 Surveys support native game bird hunting

This section draws heavily on considered replies to Questions on Notice supplied to the Committee from the Australian Sporting Shooters Association (SSAA).⁷

In February 2023, before the opening of the season, SSAA commissioned Community Engagement to undertake a survey of 2,003 Victorians of voting age in several electorates held by government members in peri-urban and suburban Melbourne and regional Victoria. RSPCA Victoria commissioned Redbridge to ask 1,908 people the same question in early 2022. These two independent surveys both found majority support for hunting to continue under new rules to protect native species:

- 56% +/-3.2% of respondents supported “new rules on duck hunting to protect native species and allow hunting to continue, such as introducing mandatory training for duck hunting licence holders.” (Community Engagement survey).
- 62% +/-3.2% of respondents supported “new rules on duck hunting to protect native species and allow hunting to continue, such as introducing mandatory training for duck hunting licence holders.” (Redbridge survey).

Both surveys had a minority of respondents who were hunters themselves:

- 15.3% of respondents to the Community Engagement survey reported that they “participate in recreational hunting”. A further 26% said they had friends and family who did.
- 16% of respondents to the Redbridge survey reported “ever participating in duck hunting”.

Other similarities exist between these separate research projects. The Community Engagement survey identified a base level of opposition to hunting of any kind within the community. Approximately 25% of respondents opposed the hunting of “non-native species, like rabbits, foxes, pigs or deer”.

⁷ SSAA (2003). Responses to QON. July 2023.

- **26.2% oppose a ban on duck hunting in Victoria** (Redbridge statewide survey on recreational native bird hunting).
- **44.9% of voting age people living in electorates held by government members oppose a ban on duck hunting** (Community Engagement Survey in peri-urban and suburban Melbourne and regional Victoria).
- **Less than 28% of voters support a ban.**
- **Overall, 39% of those people who indicated that they voted for a Labor candidate at the 2022 State election stated that they ‘oppose’ or ‘strongly oppose’ a ban on duck hunting.** A further 29% hold a neutral position.
- **15% of Labor voters stated they would be ‘likely’ or ‘very likely’ to change their vote if the Government permanently banned duck hunting in Victoria.**

The last point is corroborated by several unions (traditional Labor strongholds) who provided submissions calling for a continuation of native game bird hunting and were strongly opposed to any ban on the activity.

Barry HOWLETT Communications Manager, Sporting Shooters Association Australia (Victoria) offered the following comment in hearings:

“We looked at large numbers of duck hunters and looked at marginal seats where they lived, to see that. We basically found that had Labor gone to the 2022 election, for example, saying they were going to ban duck hunting, the seat of Bass most likely, on our figures, would not have gone to Labor.”

FINDING 9: The majority of respondents (56% to 61%) support a continuation of duck hunting under new rules to protect native species and 39% of Labor voters were opposed to a ban on duck hunting in Victoria.

4.2 Union Support for native game bird hunting

The inquiry received submissions from many unions in support of the continuation of native game bird hunting.

At the Sale Hearings, Trevor WILLIAMS **Mining and Energy Union** Victorian District President, spoke about the importance of working-class Victorians having access to traditional pursuits on public land:

“Victoria has had a proud history when it comes to access to public land for recreational activities. That principle has been supported by previous governments, whether they be Labor or Liberal. This has enabled generations of Victorians from working-class backgrounds the freedom to enjoy pastimes, including hunting and fishing.

These freedoms would not be possible without access to public land and would only be available to the privileged few. Over the years we have seen a sliding decline in the standard of some of the state (public) game reserves – how they are being managed – with poor access in a lot of cases. Hunters have reasonable expectations that tracks should be properly maintained into these areas. Our members believe hunting, fishing, camping, four-wheel driving and motorbike riding should be encouraged and supported by all governments as a healthy pastime for public land users. We would call on all governments to take a conservative approach when assessing the future of long-term held freedoms that people have had, no matter how small that group may seem.”

FINDING 10: There is strong union support for continuation of duck hunting. Unionists acknowledge the significant benefit of native bird hunting as an outdoor recreational activity for hunters.

5. Location and socioeconomics of native game bird hunting

5.1 Location of game bird hunting

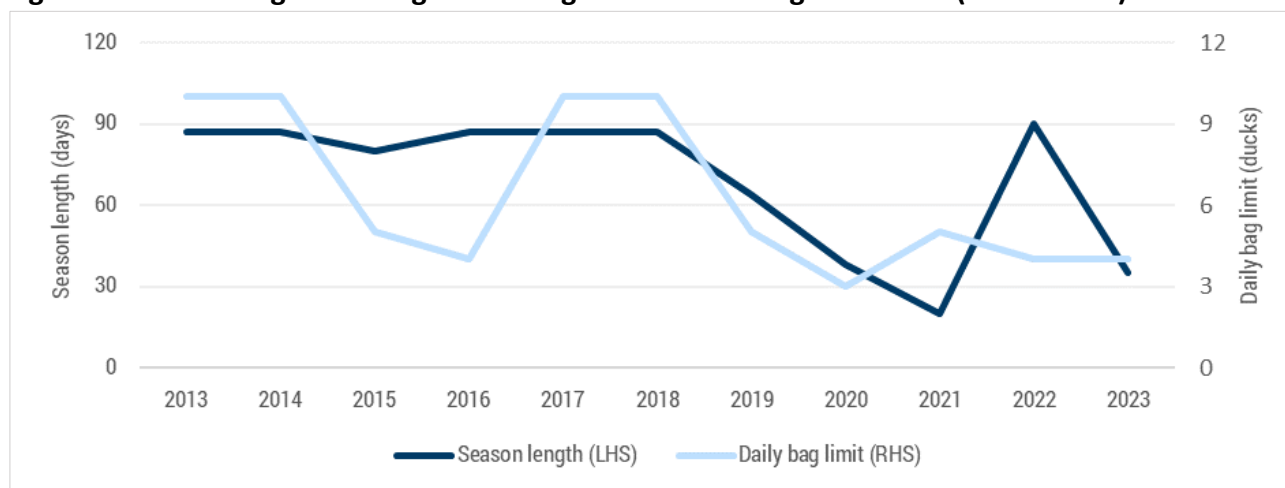
Native game bird hunting is permitted on 199 state reserves, in some wilderness and coastal parks, and on private land with the permission of the landowner.⁸ The activity is rural and a significant drawcard for Victoria's regional service industries and draws participants from both rural and metropolitan areas.

The regional LGAs with the highest percentage of hunters include East Gippsland, Wellington, Latrobe, Shepparton and Geelong. Within Melbourne, Brimbank City, Hume City and Melton Shire have a relatively high concentration of duck hunters.⁸

5.2 Game bird hunting season is short but avoids summer and snow season

An open duck season typically lasts for 12 weeks between March and June and avoids the breeding and moulting cycle. However, the Game Management Authority (GMA) may shorten or cancel a season, set a daily bag limit for hunters, or prohibit shooting of specific game bird species for conservation purposes. The last full (12 week) game bird hunting season occurred in 2022, and before that, in 2018. In 2023 the Victorian Government shortened the season to five weeks, with a bag limit of four birds per day. For the decade 2013-2023, the average game bird hunting season was 69 days⁸ (**Figure 2**).

Figure 2: Season length and bag limits for game bird hunting in Victoria (source PBO)



FINDING 11: An open duck hunting season lasts no more than 12 weeks between March and June and avoids the breeding and moulting cycle, typically lasts about 10 weeks, but was only 5 weeks in 2023.

5.3 The number of game licences and licence revenue

There were 58,016 fully licenced game hunters (58,332 including provisional licences) in Victoria on 30 June 2022. Of these, 27,810 were licenced with an entitlement to hunt game birds. Victoria receives 4 million dollars in game licence revenues and about another \$4.4 million in hunter gun licence revenue (**Table 1**)⁹.

⁸ Parliamentary Budget Office submission 3422.

⁹ Derived from GMA (2022 Game licence statistics, summary report 2022 & Vic Police webpages assuming 1.5 firearms per shooter and by applying 2022-23 fee of \$15.23/unit.

Table 1: The number of game licences and game and firearm licence revenue⁹

Category	Licences (No)	Fee (\$/yr)	Game Licence Revenue (\$000/yr)	Gun Licence Revenue (\$000/yr)
Deer (Stalking)	27,699	60.92	1,687	2,093
Deer (Stalking & Hounds)	2,770	60.92	169	209
Game Birds, including Duck	11,083	60.92	675	837
Game Birds, excluding Duck	1,089	60.92	66	82
Deer (Stalking) & Game Birds, including Duck	9,712	91.38	887	734
Deer (Stalking & Hounds) & Game Birds, including Duck	2,085	91.38	191	158
Deer (Stalking) & Game Birds, excluding Duck	3,442	91.38	315	260
Deer (Stalking & Hounds) & Game Birds, excluding Duck	181	91.38	17	14
Total all licence categories	58,061		4,007	4,387

FINDING 12: The Victorian Government receives about \$4 million pa from game licence revenue **plus** about another \$4.4 million in hunter firearm licence revenue from 58,000 licenced hunters.

5.4 Socioeconomic contribution of game bird hunting according to RMCG

Victorian Game Licence holders hunt to spend time in places special to them and to spend time outdoors and contribute to regional economies across Victoria. In 2019 these hunters contributed \$356 million and 3,138 jobs to the Victorian economy with most in regional Victoria. The RMCG report is based on 1,671 responses. Hunters took an average of 6 hunting trips during 2019¹⁰.

The RMCG estimates of economic contribution would have been higher if based on a full 87 day season and normal 10 bird per day bag limit. (RMCG's estimated economic contribution was based on the 2019 season of only 65 days and bag limit of only 4 to 5 birds per day, and hunters took an average of 6 hunting trips).¹⁰

The majority or 69% of expenditure was located outside Melbourne in regional Victoria. The Local Government Areas with the highest gross economic contribution were Mansfield (\$12M), East Gippsland (\$11M) and Latrobe (\$11M). The towns with the highest hunting-related expenditure were Mansfield (\$21M), Horsham (\$11M), Wodonga (\$10M) and Bendigo (\$9M).¹⁰

The areas of regional Victoria that benefit from native bird hunting include regions that have suffered considerable socioeconomic hardship, as a result of Andrews Government policies that have contributed to thousands of job losses in these regions. Jobs have been lost as a result of closure of power stations and coal mines, reduced access and eminent closure of native forests for timber production and reduced water availability for agriculture.

FINDING 13: The areas of regional Victoria that benefit from native bird hunting include many regional communities that have been adversely affected by contraction in economic activity caused by the Andrews Government's forest, energy and water policies.

The breakdown in contribution between hunted species was \$65 million for ducks and \$22 million for quail.¹⁰

RMCG also estimated the net economic contribution by assuming that if hunting was banned some of the game hunting economic contribution would flow to other outdoor activities or household expenditure and subtracted this sum from the gross economic contribution. RGCC note that it is difficult to predict where hunters would spend their money and modelling of net economic outcomes are uncertain¹⁰.

¹⁰ RMCG (2020). Economic contribution of recreational hunting in Victoria. Final Report, Department of Jobs Precincts and Regions. June 2020. The study is an action under the Victorian Government's Sustainable Hunting Action Plan.

RMCG noted that the gross contribution provides a clear picture of the importance of hunting to regional and town economies. If hunting expenditure were replaced by other expenditures, some towns that are particularly reliant on hunting expenditure would be adversely affected¹⁰.

In this Report we focus on gross economic contribution because we also believe that estimates of net economic contribution are uncertain and they are based on assumptions around 'substitutability' that are unknown or uncertain, such that estimates of net economic contribution cannot be relied upon.

FINDING 14: Victorian hunters contributed \$356 million and 3,138 jobs to the Victorian economy with most in regional Victoria in 2019. If native game bird hunting was banned some rural and regional towns particularly reliant on hunting would be adversely affected.

5.5 Socioeconomic contribution in Wellington Shire

Cr Ian BYE, Mayor of Wellington Shire offered the following commentary on the importance of duck hunting to the Wellington Shire economy and reducing duck damage to farmer's crops:

"As we stated in our submission, the Sale Field & Game branch has the highest membership of any Field & Game branch in Victoria. The branch is not just a shooting club. They have been active for many years in helping preserve the Heart Morass wetlands."

"In Wellington we receive a significant community benefit from duck hunting each year."

"Hunters travelling to our region provide significant economic advantages via accommodation, purchase of fuel and hunting supplies and additional ad hoc purchases in small communities closest to their hunting area."

"Speaking to many duck hunters, in 40 years they have never seen the number of ducks that are in the area this particular season. Wellington is one of the largest agricultural areas in the state. The devastation has been felt by many farmers, with ducks destroying pastures and crops."

"In Wellington we have never had problems with duck hunters and tourists visiting our beautiful wetlands and waterways. They can act together quite well."

"We must keep advocating for the most appropriate outcome for our community, which we believe is to support duck hunting as a longstanding sport which also supports the local environment and agricultural practices."

6. Native bird ecology

6.1 Habitat is the key driver for waterfowl populations

Professor Richard KINGSFORD is Director of the Centre for Ecosystem Science at the University of New South Wales, and has undertaken the longest waterbird surveys in the world, where he has surveyed 50 species across about a third of Australia. Professor KINGSFORD was involved in studies on impacts of lead shot, and chaired a national task force which recommended the phase-out of lead shot for steel shot. He also led an independent inquiry into duck hunting in New South Wales in the 90s. During the hearings Professor Richard KINGSFORD's take home message based on his considerable scientific experience was:

"The fundamental issue here is that we have been losing waterbird habitat, wetland habitat, over decades as a result of increasing extractions and regulation of the rivers for the Murray–Darling, and we see that in the impacts on freshwater organisms that rely on those flows."

"At the same time, we also investigated whether there was any effect of hunting on those species, and we found a very small effect, which was considerably overridden by the loss of habitat effect."

During hearings Brian HILLER, Professor of wildlife biology at Bemidji State University, Minnesota made the following comment:

“Habitat is key. If you have habitat, you have birds.”

6.2 Ensuring enough habitat, not banning hunting is the key to waterbird conservation

In response to the following question from Melina BATH: *“Professor, your data is often quoted as a reason to ban recreational game bird hunting. As a scientist, do you believe banning recreational hunting will improve overall waterbird population sustainability?”* Richard Kingsford offered the following answer:

“My overall message is really the way you best cater for conservation of game species and other waterbirds is to ensure they have enough habitat. Currently we are not doing that, and that is by far the biggest driver of these long-term declines.”

In response to a question from Bev McARTHUR: *“So how would you advise a government about managing the habitat better if habitat loss is the main issue why bird populations are declining?”*, Richard KINGSFORD offered the following answer:

“I would fundamentally advise the Victorian government to engage strongly in environmental flow management in the Murray–Darling. I think in the past few years we have not seen that. If we were really looking after wetland and waterbird habitat, we would be doing that.”

Following on from a question during hearings from Sheena WATT on whether there was breeding abundance seen in particular species, or was it right across the board as a result of extra rainfall during 2022, Richard KINGSFORD offered the following response:

“.....there is little doubt that all of the species were breeding, apart from those that do not breed in Australia.....and that breeding index was up as well.”

“I do not want to be totally doom and gloom, because I think there are some wonderful things that are actually happening out there, and there are great communities involved in this and very committed governments, but we do need to do more. But to your good question about these big wetlands, that is where a lot of the action is, and our ability to protect those and allow them to flood and get the water that they need to create the habitat for all of these different organisms we share the planet with is really important.”

“Sure. All of the above. Some of them have national parks and reserves; some of them, like the Gayini wetlands, are primarily managed by the Nari Nari Tribal Council, led and supported by others. There are some areas that are managed by Bush Heritage Australia, Australian wildlife – so private conservation areas. Another fundamental part of the package is the management of environmental flows by state and Commonwealth Environmental Water Holder. A lot of that water that has been brought back as part of the Murray–Darling Basin plan is fundamentally important in terms of creating the habitat or restoring the habitat that used to be there.”

FINDING 15: Loss of wetland habitat is the key issue effecting waterbird populations and hunting has a very small effect that is considerably overridden by loss of habitat.

6.3 Impact of water harvesting on waterbird habitat

During hearings Richard KINGSFORD, Director of the Centre for Ecosystem Science at the University of New South Wales said ¹¹:

“And I guess the take-home message was that we have had a 72 per cent decline in waterbird abundances in the Murray–Darling, which was different to the northern Lake Eyre basin where we have similarly been monitoring the birds. The fundamental issue here is that we have been losing waterbird habitat, wetland habitat, over decades as a result of increasing extractions and regulation of the rivers for the Murray–Darling.”

“The Lake Eyre Basin starts in western Queensland. There is no major irrigation or hydro-electricity, so the flows and the rainfall translate into habitat. Therefore that water flows across that landscape and all the waterbirds use that, as they would have done for millennia, and they breed in the same sort of numbers that we would have seen in the past.”

“At the same time, we also investigated whether there was any effect of hunting on those species, and we found a very small effect, which was considerably overridden by the loss of habitat effect.”

“We have done lots of other work to show that essentially what is happening is we are getting a long-term decline in the amount of water that gets to the end of a river system.”

“Our data seems to indicate that by far the biggest effect in terms of history is the effect of the building of dams and extraction of water from rivers.”

FINDING 16: Managing environmental flows in the Murray-Darling is required to improve waterbird habitat.

Scope may exist to explore the potential of harvesting the damaging peak flood flows during *La Niña* to improve environmental flows, particularly in *El Niño*. Following floods in 2010 and 2011 a Parliamentary Inquiry¹² suggested some strategies for dealing with damaging flood flows. Some of these or other flood mitigation actions perhaps may deliver spin off opportunities for environmental flows.

RECOMMENDATION 9: The Victorian Government explores opportunities to deliver improved environmental flows in conjunction with much needed improvement in flood mitigation.

6.4 The science does not support banning duck hunting

When asked during hearings what would be the impact of banning duck hunting and how the management of the wetlands would continue, Richard KINGSFORD said:

“there would be some impact but not a major impact, because it is all about habitat and it is availability (of habitat) that is important. I think there is also some local conservation by duck hunters and others looking after wetlands, which is also very important.”

In response to questions during hearings from Bev McARTHUR, Richard KINGSFORD offered the following:

“We have got more and more sophisticated in terms of translating that data into decision-making, and the adaptive harvest model is the most recent sophistication of that. Certainly it gives me a lot more confidence than I had in the past that we are moving to a more rigorous basis for managing duck hunting.”

¹¹ Inquiry Transcript 26 May 2023

¹² Environment and Natural Resources Committee (2012). Inquiry into flood mitigation infrastructure in Victoria. Parliamentary Paper No.169 Session 2010–2012.

In response to a question during hearings of whether regulated recreational game bird hunting is sustainable, Professor Marcel KLAASSEN from Deakin University replied:

“Yes. “Yes. I have said a couple of times already that any management of wildlife – this is not just related to a duck harvesting, needs to be associated with monitoring. You can have models, but you also need to have a check on models.”

During hearings Professor Marcel KLAASSEN offered the following comment on the impact of hunting on duck populations:

*“I can refer here to a study that Richard did looking at the effects of various drivers in duck populations. He found the major effect was water and the landscape, and there was a tiny effect from hunting. Of course when you hunt animals, it has an impact on the population – numbers go down. **Now, given the specific biology of ducks, it does not really put a dent in the population.**”*

During hearings Lucas COOKE, CEO Field & Game Australia, offered the following comment:

*“There is a long-term decline (waterbird numbers) in eastern Australia. A very large amount of eastern Australia does not have hunting. **Trying to blame hunting for a long-term decline is a fallacy. Long-term decline is being caused by habitat loss quite often or largely in a state like New South Wales that does not have a recreational duck season.** So any attempt to pin a long-term decline in waterbird numbers on hunting is a fallacy. We would argue it is grossly misleading to the public, with 66 species of non-game waterbirds being counted in that long- term decline in waterbirds, that you are trying to blame game bird hunting.”*

FINDING 17: In Victoria duck hunting is sustainable and regulated according to an adaptive harvest model based on good science, and hunting does not put a dent in the population given the biology of ducks – they are prolific breeders.

Brian HILLER Professor of wildlife biology at Bemidji State University, Minnesota, in response to a question on notice, advised that **hunting has little impact on game bird populations, because mortality impacts from hunting, predation, starvation, malnutrition and disease are not additive but are compensatory.** Competition for food is often reduced when hunting or predators remove some animals from the population and fewer animals die from starvation, malnutrition, sickness or disease because of the interaction with predation (and hunting)¹³:

“Most game animals are relatively short-lived, have high reproductive rates, and have relatively high overall mortality rates. In the situation where game populations are hunted, the animals removed by hunting actually may create more opportunity for the remaining individuals to have a greater likelihood of survival. Most of the species of waterfowl that are listed as game species and are regularly available for harvest have breeding strategies as described above. As a result, when conditions are favourable for breeding they take full advantage and often produce multiple broods. When these conditions are present, the mortality via harvest by hunting is most likely compensatory for the population and reduces competition among the remaining individuals & increases their likelihood of subsequent survival.”

“The impact of the hunting harvest is minimal on the core breeding population. The animals that are shot would have likely died from some other source of mortality. When environmental conditions are less optimal and breeding rates decline, the total population also likely declines and harvest may have a greater impact on survival rates. Overall, in normal to good conditions hunting harvest for most hunted species (especially Grey teal, Pacific black duck, Wood duck, Pink-eared ducks, and Chestnut teal) will likely have minor to no impact on the population.”

¹³ Hiller, B J (2023). Submission in Support of Continued Native Game Bird Hunting in Australia, Additional supplemental information as requested by the Committee. Prof Hiller cited Bolen, Eric G. and William L. Robinson. 2003. Wildlife Ecology and Management, Fifth Edition.

"More research is needed into the potential impacts of hunting harvest on species such as Hard head ducks and Mountain ducks."

FINDING 18: Hunting has little impact on game bird populations, because mortality impacts from hunting, predation, starvation, malnutrition and disease are not additive but are compensatory. Competition for food is often reduced when hunting or predators remove some animals from the population and therefore fewer animals die from starvation, malnutrition, sickness or disease.

6.5 The science does not support shortening the duck hunting season

In response to questions during hearings from Melina BATH on how robust is the science and are you convinced of the sustainability of the interim harvest model, and why a recommendation of the model is to generally not shorten the seasons, Professor Marcel KLAASSEN from Deakin University offered the following comments:

"With a mechanistic model you know exactly how a system works, and so whatever happens you can make predictions. But this is a statistical model, so it is based on patterns that we have seen in the past and you extrapolate from those patterns."

*"On average hunters go out four times during a season to hunt – and irrespective of the length of the season, they do not change it much. So, yes, **you can change the length of the season, like we have done this year, but scientifically there was not really a good basis for it.**"*

"So let us keep it simple and only change the hunting bag, because also that has shown in other countries to be an effective way of regulating hunting."

Professor Marcel KLAASSEN offered the following comments on length of season:

"But by and large the hunting season takes place in a period in which there is very little reproduction going on – very, very little. To change the hunting season based on small variations that you have when they reproduce or not I do not think is sensible."

Professor Richard KINGSFORD offered the following comments on length of season:

"The history of duck hunting in Australia – the timing of it was determined primarily on, as Marcel said, the breeding season. The breeding season is in spring, primarily, in the south-east of the continent. Some birds will occasionally breed in a wet autumn, but not many."

"The other driver was what is called moult. These birds lose their flight feathers and cannot fly. So the timing was meant to occur so that they were able to be undisturbed in that period, and in general that occurs reasonably well."

"If you have got a long season and you cut it by a week, three weeks, two weeks or whatever, it does not necessarily have the effect of halving or cutting by that same amount the amount of take, because you are not affecting those major points when the duck shooting occurs."¹⁴

FINDING 19: There is no scientific basis for changing the length of the hunting season, so it is best to just change the hunting bag limit, which has been shown in other countries to be an effective way of regulating hunting.

¹⁴ Opening weekend and long weekends.

6.6 Ducks are prolific breeders and there is no density limit to breeding

In response to a question from Jeff BOURMAN on if the abundance of wood duck, black duck and grey teal (that make up made up 85% of hunters' bags) were at risk from regulated duck hunting in Victoria as it works now, Professor Marcel KLAASSEN offered the following reply:

"Just generally, for ducks, they are very resilient. They reproduce at a very young age, possibly even within a year, notably here in Australia, and when the conditions are right they just keep on breeding – many species of ducks. They also have large broods. When opportunities arise for reproduction they reproduce, and there is also no so-called density dependence observable in ducks, not only in Australia but just generally. So it is not that they hit a limit; it is really that when there is a good environment for them they breed, and they breed and they can bounce back quickly."

"Now, given the specific biology of ducks, it does not really put a dent in the population."

And Professor Richard KINGSFORD offered the following reply:

"wood ducks – and I published on this – have certainly been the least affected of perhaps all of the duck species because they have taken over farm dams and golf courses and they breed in all sorts of places that they probably did not breed in in the past. We still believe that in the big systems they have been impacted by the loss of habitat with river regulation, but they are one of the species that are certainly a lot less affected than others."

"Certainly Victoria has been the state with the most amount of duck hunting occurring and has more duck hunters than South Australia and Tasmania – the other two. The Northern Territory is the other jurisdiction that has hunting. New South Wales has pest mitigation as well, but I would suspect that Victoria will still dominate in terms of a relative national scale."

FINDING 20: Ducks reproduce at an early age, have large broods with no density dependence, and are less affected by loss of habitat, with wood ducks taking over farm dams and golf courses.

6.7 Breeding cycle of waterfowl

In response to a question in hearings from Melina BATH on 'episodic irruptive boom-bust cycle of waterfowl'. Dr Brian HILLER replied:

"Yes. It is sort of similar to what I just mentioned in that when you have large rain events or large flood events across a landscape, that is when the birds are going to take advantage of essentially additional habitat that was not there prior to the rain. When that happens – again, similar to what Dr Kingsford was talking about earlier – flooding events come and the birds go and breed. And they did, and they have done that for millennia. What happens when all those extra birds are produced – and again, if you have chestnut teal or grey teal or black ducks or some others that are double brooding in some cases, they might produce 15, 16 or 18 ducklings that survive to fledging age. Well, that is fine during this boom period, right? But when that water recedes – and again, if you look back through the BOM data on waterfall and rain abundance, you can see where the boom years are and where the bust years are – when the bust comes, you are going to shrink back to your core breeding population. As you were just mentioning, one of the things in terms of a cautionary approach when those busts happen is to be more conservative in your approach to the harvest. You do not want to harvest the core breeding population; you want to harvest the stuff that gets produced above that. That is really where that boom-bust comes in. That boom produces a lot of extra birds that at some point – when the bust comes – are going to die. The question is simply: how, and what is going to be the cause of mortality? The duck does not particularly care if it is by shotgun or by starvation or by bacteria or predation or whatever else. That is not relevant to them. Honestly, from a management standpoint, we try and control the things we can control. One of the few things we have control over is harvest, right? So we

try to regulate the harvest as a result. When the bust comes, we regulate the harvest to reduce the harvest of core breeding populations.”

FINDING 21: Flood and drought cause an ‘episodic irruptive boom-bust cycle of waterfowl’. In boom flood times chestnut teal or grey teal or black ducks may double brood and produce up to 18 ducklings to fledging age that are likely to die from starvation, disease or predation when the bust comes. Regulation of the harvest in the busts reduces the impact on the core breeding population.

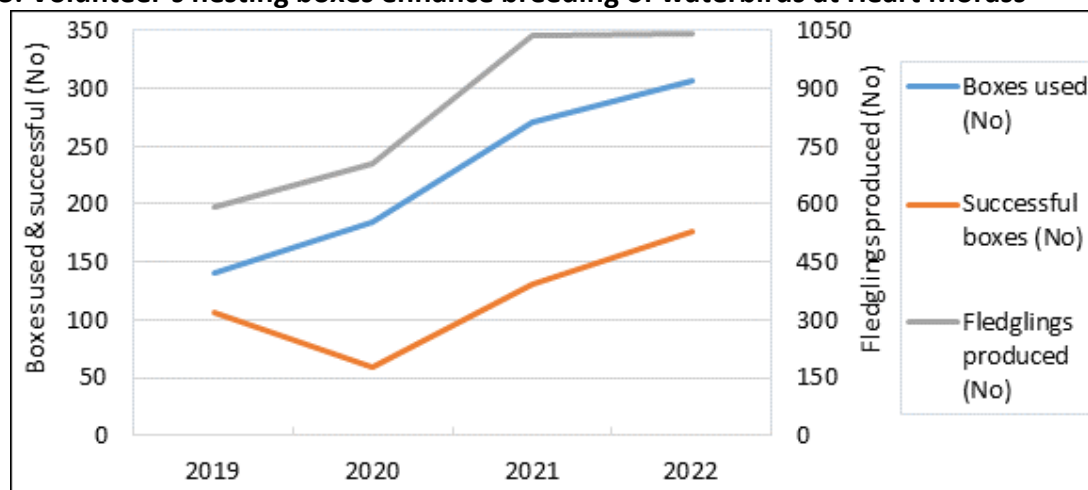
6.8 Volunteers enhance wetland habitat and breeding of waterbirds

In response to a question in hearings from Melina BATH on artificial nesting boxes, Dr Brian HILLER replied:

“These are artificial nest boxes that are erected by the Field & Game association at Sale. They have over 500 of them currently scattered around Heart Morass in the Lake Wellington area. So my interest in that was: what is coming out of them from a biology standpoint? What additional birds are being produced if these things were not here? And so I instructed them and sort of gave them some guidance on how they might be able to collect data so that they could have a better understanding of what their work was actually accomplishing and if it was accomplishing anything.”

“We started the work in 2019, which was sort of the end of the bust period. That bust period, again, you shrink back to your core population, and your core population at that time – we had relatively few boxes being used, but the boxes being used had a 75 per cent success rate. So if a bird nested in the box, 75 per cent of those boxes actually produced at least one duckling. That is considered a successful nest. And in that case, I want to say we had about 730-something ducklings that were produced that year. In each of the past three years where we have had these boom periods we have had a lot of excess birds on the landscape” (Figure 3)¹⁵.

Figure 3: Volunteer’s nesting boxes enhance breeding of waterbirds at Heart Morass



¹⁵ Derived from Hiller, B (2023). Response to Question on Notice 7 June 2023.

6.9 Impact of duck hunting on non-target species

In response to a question in hearings from Georgie PURCELL: “Do you think that duck shooting poses an added threat to species that are not on the game species list that are already struggling due to the other factors”, Professor Richard KINGSFORD offered the following reply:

“But generally they are fairly small numbers in the big scheme of things because people are not doing that. I do not think non-target species is an issue.”

In response to a question in hearings on non-target species Danny RYAN, Chairman Field & Game Australia offered the following comments:

“The hunting community is much interconnected. We have a large amount of members not only nationwide but with the majority in Victoria, and we constantly get reports in the lead-up to the season in particular, because that is always an issue that the hunting community looks at and tries to second-guess and work out where they will be going and what potential closures there may be. And then in turn, in our lead-up discussions with the GMA we often bring up those particular points, particularly where they are large quantities of protected birds or congregations of protected birds.”

FINDING 22: Native game bird hunting does not pose an added threat to non-target species because Field and Game Australia liaise with GMA and licenced hunters take care to avoid non-target species.

Non-native invasive pests pose a threat to non-target species and we need more efficient and cost –effective management and control of non-native invasive pests. The Victorian Government should optimise resources within DEECA and Parks Victoria, which are highly centralised with too many people working in the CBD of Melbourne and too few people delivering real outcomes in the field.

FINDING 23: Non-native invasive pests are a threat to native birds and DEECA AND Parks Victoria workforce is too city-based to deliver effective control of non-native invasive pests that threaten native wildlife and habitat.

RECOMMENDATION 10: The Victoria Government should optimise the use of the resources of relevant agencies to ensure there is active, adaptive and accountable management on all public land, to address the broader threats of bushfires, invasive species and adverse climatic events such as droughts and floods. Optimising resources includes decentralising its city-based workforce.

7. Concerns about native game bird hunting

The debate over native game bird hunting in Victoria, Australia, and elsewhere, revolves around a set of multifaceted concerns, which can be broadly categorised into environmental, ecological, ethical, social, and economic aspects. Here are some of the reasons cited by opponents of recreational duck hunting along with commentary provided by experts that refutes many claims.

7.1 Ecological concerns - hunting does not put a dent in waterbird numbers

On the decline in waterbird numbers, the Committee heard overwhelming advice from multiple experts that hunting is not a concern at the population level for native game birds. The evidence from Australia’s leading experts on Australian wetlands and waterbirds that hunting has a “very small” effect on duck populations, and possibly a positive effect on non-target species populations due to hunter led habitat conservation and restoration.

Professor Richard KINGSFORD – leader of Australia’s longest running and most comprehensive wetland survey was un-equivocal in this. He states:

“The fundamental issue here is that we have been losing waterbird habitat, wetland habitat, ... At the same time, we also investigated whether there was any effect of hunting on those species, and we found a very small effect, which was considerably overridden by the loss of habitat effect.”

Professor Marcell KLAASSEN also contributed when asked “what part does hunting play in the long-term numbers of those (game) species”:

“...given the specific biology of ducks, it does not really put a dent in the population”.

Professor Richard KINGSFORD, when asked directly: “As a scientist, do you believe banning recreational hunting will improve overall waterbird population sustainability?” replied:

*“Look, I am a conservation biologist, so I believe in trying to do the best things in terms of the conservation of species. **My overall message is really the way you best cater for conservation of game species and other waterbirds is to ensure they have enough habitat.** Currently we are not doing that, and that is by far the biggest driver of these long-term declines.”*

*“Hunters can and do have a positive effect on conserving and restoring habitat – and in fact, with some surety around seasons can and would do even more. **Banning Recreational game bird hunting WILL NOT cease the decline in waterbird numbers, in fact, like observed in NSW – it will likely lead to further loss of habitat, and species decline.**”*

FINDING 24: Conservation biologists conclude that banning recreational game bird hunting will likely lead to further loss of habitat and species decline.

7.2 Disturbance to breeding – the hunting season is outside the breeding season

The Committee heard of concerns that the hunting season can disturb breeding waterbirds. When asked about this – Professor Marcel CLAASSEN said that:

“...by and large the hunting season takes place in a period in which there is very little reproduction going on – very, very little. To change the hunting season based on small variations that you have when they reproduce or not I do not think is sensible.”

Australian Ducks and Quail are not migratory. They are what is sometimes referred to as “conditionally nomadic”. So they move around the country in response to localised or national conditions, not with a season as in northern hemisphere birds. Migratory shorebirds that visit Australia generally reside in coastal regions. **The most important coastal habitats are already closed to recreational hunting.**

In dry years when inland waterways become vital to these birds, adaptive harvest models and sound scientific management of hunting areas can provide safety networks as required. **Provision of quality habitat and food sources is the most important aspect of protecting our migratory birds.**

7.3 Misidentification of Species

With several duck species and other waterfowl in the region, there's the possibility of hunters misidentifying and shooting protected or threatened species. When asked directly if he thought hunting posed a risk to threatened species, Professor KINGSFORD replied:

“If you do not mind me responding, Marcel. I did at one stage – it was some time ago in New South Wales – look at the issue of non-target species, which is separate to wounding. There are two issues that you have talked about. One is what happens to those birds that are shot which should not be shot, like

*the freckled duck and blue-winged shoveler. I think those species are suffering the same decline, so any loss of those species is of concern. But generally they are fairly small numbers in the big scheme of things because people are not doing that. I remember some horrific times when I was doing surveys of duck hunters in the 80s, where all sorts of birds were being shot, and it was just horrible. We would get a boatload of parrots and spoonbills and swans – a whole range of things. Thankfully that has completely changed, in my opinion. We do not see nearly as much of that, but it still sometimes occurs because we get rogue elements of people out there. **I do not think non-target species is an issue.***

7.4 Climate impact on habitat loss

In response to the question when asked: “Specifically, ... what do you think the impact of that (climate change) will be on duck numbers?” Professor Marcel CLAASSEN replied:

*“I am an optimist, and maybe others will consider that to mean that I am naive. But I do see that there is more attention for these problems. ... we also have climate change to take into consideration, so yes, fluctuations are likely to be higher. ...(but) **not necessarily for ducks, because they are quite a resilient species**, so they can go through troughs, **provided that they are well managed when they are going through those troughs**. For other waterbird species it might be more problematic. Notably for species that are already present in low numbers it does not look good.”*

7.5 Biodiversity – hunters have improved biodiversity

The Committee heard that recreational duck hunting poses no risk at all to biodiversity due to the fact ducks are among the most adaptable and resilient of Australia’s native waterfowl.

In fact, hunter led wetland conservation efforts like that of Field & Game Australia’s Connemara wetland centre and Heart Morass provide much needed habitat for over 1300 species of plants, animals, and insects, **increasing biodiversity in those areas**.

7.6 Ethical and Animal Welfare concerns ignore population dynamics

The Committee heard of concerns of animal welfare at an individual bird level, but ecologists and biologist supplied information that hunting provides a welfare benefit at the population level by contributing to habitat and ensuring birds have safe places to breed, nest and raise young (all critical on the welfare scale).

The Committee was presented with the argument that not all birds shot are killed instantly; many are wounded and suffer prolonged pain or slow deaths. However, Dr Brian HILLER, a professor of wildlife biology at Bemidji State University, Minnesota said:

“That boom (in Australian climate conditions and breeding) produces a lot of extra birds that at some point – when the bust comes – are going to die. The question is simply: how, and what is going to be the cause of mortality? The duck does not particularly care if it is by shotgun or by starvation or by bacteria or predation or whatever else. That is not relevant to them. Honestly, from a management standpoint, we try and control the things we can control. One of the few things we have control over is harvest, right? So we try to regulate the harvest as a result. When the bust comes, we regulate the harvest to reduce the harvest of core breeding populations.”

7.7 Morality of Hunting

The Committee was presented with the argument that people feel that killing for sport or pleasure, rather than for survival or sustenance, is ethically questionable. In fact the term “sport shooting” was used deliberately and emotively by those opposed to hunting. Hunters, however, presented that Victoria already has laws requiring ALL harvested birds to be collected, and for at least the breast meat to be salvaged. Duck hunters hunt for food. Part of a growing trend in responsible food sourcing involved people taking responsibility for where and how their meat is grown and is harvested. Again, Dr Hiller noted that:

“In addition to hunting ducks, I also hunt deer, turkeys, geese, grouse, and doves. I also keep and eat fish that I catch. I also forage in the forest for wild edibles such as mushrooms. I also grow my own vegetables. My family also cans/preserves our own salsa. I help friends raise and butcher chickens. Sometimes, I even have to resort to going to the grocery store for some of my food. My point here is that I hunt to participate in collecting my own food locally from wild, free-range, organic sources based on what is seasonally available and abundant.”

A very small number of Australians and Victorians do not consume animal products but the majority of Victorians do. The majority that consume meat such as hunters and the general public have a moral decision to make on where they get their meat from. **A minority group assuming moral responsibility on another and prohibiting hunting on morality grounds is itself immoral and undemocratic.**

Certainly while presenting to the Committee on the morals of game bird hunting Dr Holly SITTERS response shows that her moral or professional objection with game bird hunting is not specific to game birds, or scientifically based. – she is in fact opposed to ALL lethal control of animals – even of feral pests. When asked “So we should ban, do you think, all forms of hunting?” Dr Holly Sitters replied “Yes”.

Those opposed to hunting native game birds in Australia on moral grounds, **must by needs oppose ALL hunting, and fishing, and animal agriculture. This particular argument is opposed by the Liberals and Nationals and it is clearly outside the terms of reference and scope of this committee to consider.**

7.8 Wounding and protestor behaviour

Wounding is an unintentional consequence of hunting. All hunters aim to dispatch their quarry as quickly as possible. Ideally, every shot bird would be immediately dispatched. However, the fact is that despite best efforts, unintentional wounding may occur. Hunters would argue that whilst wounding could occur as a result of infrequent behaviour, it is never “intentional.” The intent is always to dispatch the bird.

Field & Game Australia has a long and proud history of educating and engaging hunters to reduce the occurrences of unintentional wounding. Specialists in the fields of ecology and wildlife management agree that this as the most effective way to drive improvements in hunting outcomes.

Hunting organisations and animal welfare groups have established and agreed on a Wound Reduction Action Plan. The cohort of invested stakeholders included Field & Game Australia - Victoria, Sporting Shooters Association Australia, Beretta Australia, RSPCA and more. They presented the plan to the Minister for Agriculture in September 2022, and the newly created, Minister for Outdoor Recreation in December 2022, for approval and implementation.

Finding 25: The Committee notes that hunting organisations and animal welfare groups have established and agreed on a Wound Reduction Action Plan. The plan has been in the hands of the Victorian Government since September 2022.

RECOMMENDATION 11: The Victorian Government immediately approves and fund the implementation of the Waterfowl Wounding Reduction Action Plan, which has bilateral support from hunting and animal welfare organisations.

The Committee agrees with the view that protestors can exercise their right to protest – but should not be able to directly enter active hunting areas and put themselves and hunters at risk. Any persons protesting must remain at least 100m from any hunter.

Protesters get in the way of hunters trying to dispatch their quarry, putting themselves and hunters at risk. Complete data from the 2022 duck hunting season identified that 38% of the infractions were incurred by protestors and anti-hunting protestors themselves, including major breaches of the following sections of the *Wildlife Act 1975* such as⁶:

- S58C - Offence for certain persons to enter on or remain in specified hunting area and
- S86 - Notices prohibiting, regulating or controlling the taking, destroying or hunting of wildlife.

RECOMMENDATION 12: The Victorian Government implements additional measures to restrict the capacity of protestors to hinder the lawful conduct of duck hunters and introduce civil offence for persons entering a wetland whereby they are within 100 metres of a hunter.

8. Scientific benefit of hunting

The committee heard from Professor Marcel CLAASSEN that:

“My research and that of others in this space – Agriculture Victoria, for instance – make use of the services, if you like, of hunters that help them in collecting samples for avian influenza research. I have been doing the same, so they form an important part of my research, but I am not exclusively relying on those samples, and I think the same applies for Agriculture Victoria. By the way, the same is also happening in other states. Tasmania importantly rely, for their avian influenza monitoring, on hunted ducks.”

While these and other studies could continue without the assistance of recreational hunters, the access for science to reliable biological samples would significantly reduce or would need to be replaced by other methods.

9. Misleading testimony by The Australia Institute

The examination of The Australia Institute’s submission shows there are valid concerns regarding its credibility. It contradicts itself, with conflicting and misleading economic comments. It has also failed to provide alternative evidence to convincingly support its claims and has failed to highlight the limitations of its own research. Furthermore, The Australia Institute appears to have attempted to discredit a report based on a false claim of its origins. The Australia Institute has shown itself to not have a credible, coherent economic argument for the banning of native bird hunting by contradicting itself and giving misleading testimony (**Appendix 1**).

Appendix 1: Misleading testimony by the Australia Institute

a) Introduction

The Inquiry into Victoria's recreational native bird hunting arrangements has examined the potential economic costs of ending Duck Hunting in Victoria. One of the submitters in favour of banning native bird hunting is The Australia Institute, represented at the hearing by Rod Campbell and Elizabeth Morison.

We raise concerns with the credibility of The Australia Institute, given conflicting testimony was provided by its representatives.

There was also a concern that The Australia Institute witnesses gave misleading statements. They suggested that a report showing the benefits of duck hunting season was commissioned by the Game Management Authority when in fact it was the Minister for Agriculture who commissioned the report.

Additionally, we are of the view that The Australia Institute has used economic evidence and statistics in a misleading manner which leads to questions over its credibility.

b) Misleading economic testimony

In The Australia Institute's opening statement to the committee, Elizabeth Morison, provided evidence that duck and quail hunting results in an economic benefit:

*"Based on calculations from RM Consulting Group, duck and quail hunting results in economic activity of between \$4 million and \$11 million each year."*¹⁶

This net economic benefit is based on spending by hunters, such as on travel, accommodation and other spending in the regions less what they may spend on unknown substituted activities in unknown locations. The Australia Institute uses this unreliable net economic benefit as evidence that the economic benefit of native bird hunting is very low.

However, Rod Campbell contradicts Elizabeth Morris's earlier claim in The Australian Institute's statement by claiming that the argument for banning duck hunting is that it imposes a large cost on Victorians, which suggests its view is that native bird hunting is a net economic negative. In response to a question as to why native bird hunting should be banned, Rod Campbell states:

*"Because it imposes a cost on a large number of Victorians."*¹⁷

The Australia Institute's arguments are inconstant. On the one hand it is willing to use a report as evidence that native bird hunting provides a small economic benefit and therefore it should be banned, (the methodology used is inappropriate). Then on the other hand, it claims that native bird hunting imposes a cost on Victorians and therefore it should be banned.

We observe that whilst The Australia Institute is willing to refer to its own dated research funded by the RSPCA, it did not refer to the welfare benefits of hunting.

The Australia Institute has been misleading by holding out the RMCG modelling as a best-case scenario despite the fact it does not consider the welfare of hunters. This is akin to claiming that the benefit of the Fitzroy Gardens is small because only occasionally someone buys a coffee from a local café because they can sit in the gardens.

Additionally, there are significant concerns with the use of the criterion validity (CV) of willingness to pay method in the type of research used by The Australian Institute. There are potential for biases including design bias, strategic bias and hypothetical bias. Notably, meta-analyses have shown the hypothetical bias effect to be significant, particularly for environmental and conservation issues.¹⁸

Despite claiming that native bird shooting provides little value to Victorians, The Australian Institute makes no attempt to value the other benefits of native bird hunting, as outlined by the Sporting Shooters Association Australia:

¹⁶ Submission, The Australia Institute.

¹⁷ Hearing transcript.

¹⁸ Lucy Kanya, Sabina Sanghera, Alex Lewin, Julia Fox-Rushby, The criterion validity of willingness to pay methods: A systematic review and meta-analysis of the evidence, Social Science & Medicine, 2021.

The social interaction of hunters with friends, family, and local communities is greatly enriched by duck hunting. Common motivations for bird hunting include sourcing free-range game meat, physical exercise, maintaining a connection with nature, mental well-being and positive social interaction with friends and family.

According to statistics, hunters have better mental and physical health than non-hunters. This is because hunters tend to have a tangible and genuine connection with nature. Most people say that connecting with nature is important to them. Hunters actually participate in nature, making their connection even stronger.¹⁹

c) Misleading report origin claims

The Australia Institute in its submission to the inquiry seeks to call into question the validity of the report from the RMCG into the economic benefits of duck hunting. The claim by The Australia Institute is because the Game Management Authority (GMA) uses that report to back up the GMA's view on the benefits of duck hunting, that this report from RMCG is more appropriate to advocacy for hunting than to inform policy.

The Australia Institute claims that this report is favourable to the GMA and their interests, and even goes so far as to state:

"... in research commissioned by Victoria's Game Management Authority (GMA) and written by RM Consulting Group (RMCG) in 2020."²⁰

It seems to suggest that because GMA commissioned the report it should be looked at sceptically. However, this claim is debunked by the Member for Eastern Victoria, Jeff Bourman, who highlighted that this report was not commissioned by the GMA. Instead, it was commissioned personally by the then Minister for Agriculture, Jaclyn Symes:

"It was done by the department, and I have it on extremely good authority that it was actually commissioned by the minister herself at the time, who is now the Attorney-General."

Rod Campbell's belief that the research is more appropriate to advocacy is an interesting claim, and calls into question how seriously The Australia Institute's submission should be taken by the inquiry if it does not understand the origin of a report that it has used to base some of its arguments on and has suggested that readers should be sceptical of, on the false basis that it was commissioned by the GMA.

d) A deeper dive into the statistics on duck hunting

On the front page of the submission from The Australia Institute, it quotes a statistic that 0.17% of the population engages in duck hunting, down from 1% in 2012. However, context must be applied. Since then, the Victorian Government has been making it harder for people to engage in duck hunting. John Byers, a life-long hunter, referred to the Minister having evidence to support a full-length season:

"The fact that the minister had the available science in her hand to say that we could have had a full-length season ..."²¹

A full-length season in 2012, was 87 days - almost 3 months - while in 2023 the season is just 35 days.²² The statistic referred to by The Australia Institute could suggest that the Victorian Government by making it harder to engage in duck hunting is reducing participation. Therefore, it is worth noting that these statistics provided by the Australia Institute may be correlated to more restrictive policies of the Victorian Government rather than a loss of interest in the activity.

¹⁹ SSAF Submission.

²⁰ Australia Institute Submission, pp1.

²¹ Submission, John Byers.

²² <https://www.gma.vic.gov.au/hunting/duck/duck-season-considerations/historical-summary-of-seasonal-arrangements>.

Wildlife Act 1975

WILDLIFE (PROHIBITION OF GAME HUNTING) NOTICE No. 1/2024

I, Steve Dimopoulos, as Minister for Outdoor Recreation and as Minister for Environment make the following Notice:

STEVE DIMOPOULOS MP

Minister for Outdoor Recreation

Date:

STEVE DIMOPOULOS MP

Minister for Environment

Date:

1. *Objective*

The objective of this Notice is to—

- (a) prohibit absolutely the taking, destroying or hunting in Victoria of specified indigenous game birds (waterfowl), and
- (b) otherwise regulate and control the taking, destroying or hunting of specified indigenous game birds (waterfowl);

which would otherwise be permitted during the 2024 open season.

2. *Authorising provision*

This Notice is made under section 86 of the **Wildlife Act 1975**.

3. *Notice prevails*

Under section 86(3) of the **Wildlife Act 1975** this Notice prevails over any inconsistent regulation made under the **Wildlife Act 1975** or any licence, permit or other authority to take, destroy or hunt any particular kind or taxon of wildlife issued under the **Wildlife Act 1975**.

4. *Definitions*

In this Notice:

2024 modified open season means the open season in 2024 for indigenous game birds (waterfowl) as modified by clause 6 of this Notice;

default bag limit for indigenous game birds (waterfowl) means the maximum number of indigenous game birds (waterfowl) that a person may take or destroy on any day during an open season as prescribed by regulation 31 and items 8 to 15 of Schedule 4 of the Wildlife (Game) Interim Regulations 2023;

indigenous game birds (waterfowl) means any of the following, being the kinds or taxa of game set out in Part 3 of Schedule 3 of the Wildlife (Game) Interim Regulations 2023:

- (a) Pacific Black Duck (*Anas superciliosa*);
- (b) Australasian (Blue-winged) Shoveler (*Anas rhynchos*);
- (c) Chestnut Teal (*Anas castanea*);
- (d) Grey Teal (*Anas gracilis*);
- (e) Hardhead (White-eyed Duck) (*Aythya australis*);
- (f) Australian Shelduck (Mountain Duck) (*Tadorna tadornoides*);
- (g) Pink-eared Duck (*Malacorhynchus membranaceus*); and
- (h) Australian Wood Duck (Maned Duck) (*Chenonetta jubata*).

5. Commencement and period Notice has effect

This Notice takes effect from 12.00 am on 16 March 2024 and continues to have effect until 11.59pm on 10 June 2024.

6. Modification of 2024 open season

The open season prescribed in Part 3 of Schedule 3 of the Wildlife (Game) Interim Regulations 2023 in relation to indigenous game birds (waterfowl) is modified in relation to the 2024 open season to be from 8.00 a.m. on 10 April 2024 to 30 minutes after sunset on 5 June 2024.

7. Prohibition on hunting of specified indigenous game birds (waterfowl)

- (a) The taking, destroying or hunting of any indigenous game bird (waterfowl) is prohibited:
 - i. at all times from 12.00am on 16 March 2024 until 8.00 am on 10 April 2024; and
 - ii. at all times from 30 minutes after sunset on 5 June 2024 to 11.59 pm on 10 June 2024.
- (b) The taking, destroying or hunting of the Australasian (Blue-winged) Shoveler (*Anas rhynchos*) is prohibited during the 2024 modified open season, anywhere in Victoria.
- (c) The taking, destroying or hunting of the Hardhead (White-eyed Duck) (*Aythya australis*) is prohibited during the 2024 modified open season, anywhere in Victoria.
- (d) The taking, destroying or hunting of any indigenous game bird (waterfowl) from anywhere in Victoria is prohibited during the following times on each day of the 2024 modified open season:
 - i. 12:00 a.m. until 8:00 a.m.; and
 - ii. From 30 minutes after sunset until 12:00 a.m.

8. Modification of default bag limit for indigenous game birds (waterfowl)

- (a) The default bag limit for indigenous game birds (waterfowl) is modified to a maximum of six indigenous game birds (waterfowl), on any day during the 2024 modified open season.
- (b) Clause 7 prevails over this clause to the extent of any inconsistency.

9. Contravention of Notice

A person must not contravene any part of this Notice.

Penalty: 25 penalty units.

From: Minister Outdoor Recreation (DJSIR)
To: [REDACTED] (DJSIR); Mark Sandiford (DJSIR); Rachaele E May (DJSIR); [REDACTED] (DJSIR)
Subject: Signed Min OR - BMIN-2-24-36239 - Notice for the 2024 Duck Hunting Season
Date: Thursday, 7 March 2024 8:50:00 PM
Attachments: [BMIN-2-24-36239 - Signed Min OR 7.3.24.pdf](#)
[Notice signed by Min OR and Min ENV 7.3.24.pdf](#)
Importance: High

OFFICIAL

Good evening,

Please find attached:

- BMIN-2-24-36239, which has been signed by Minister for Outdoor Recreation, with all recommendations approved
- Wildlife (Prohibition of Game Hunting) Notice NO. 1/2024 (signed by Minister in their capacity as both Minister for Outdoor Recreation and Minister for Environment)

The Minister has also approved DEECA brief MBR-240200644 – Legal Notice for 2024 Duck Hunting Season and approved all its recommendations.

Can you please let me know when this notice has been gazetted so I can advise the Minister's Office.

Kind regards,

[REDACTED]
[REDACTED] – Outdoor Recreation
Office of Steve Dimopoulos MP
Minister for Environment
Minister for Tourism, Sport and Major Events
Minister for Outdoor Recreation
8 Nicholson Street, VIC 3002
Email: [REDACTED]
Ph: [REDACTED]

OFFICIAL

Department of Jobs, Skills, Industry and Regions

Briefing for Minister for Outdoor Recreation

Subject	Notice for the 2024 Duck Hunting Season
Decision date	8 March 2024 to enable DJSIR to publish a Notice in the Government Gazette by 12 March 2024 at the latest.

Core message

On 29 January 2024, you announced that the 2024 duck hunting season will proceed with modifications to season start times, season length, daily bag limits for game ducks and the species that may be hunted. The modified 2024 duck hunting season includes reducing the daily bag limit to 6 ducks, reducing the season length to commence on 10 April and conclude on 5 June 2024, prohibiting the taking, hunting and destroying of the Blue-winged Shoveler and Hardhead and delaying hunting start times to 8:00am across Victoria on every day of the modified open season.

For these modifications to come into effect you, in your capacity as the Minister for Outdoor Recreation, must sign a Notice under section 86 of the *Wildlife Act 1975* prior to publication in the Victoria Government Gazette.

A Notice is provided for your consideration and signature. You will also be requested to sign an identical Notice prepared by DEECA, in your capacity as Minister for Environment, to reflect joint administration of recreational hunting arrangements.

Electronically evidenced by	Name	Date	Position	Phone no.
	<i>Name and details appear only after authorisation has been electronically evidenced</i>			
Accountable Executive Officer	Rachaele E May (DJSIR)	07/03/2024 10:09 AM	Executive Director, Emergency Management and Outdoor Recreation	
	Beth C Jones (DJSIR)	07/03/2024 11:02 AM	Deputy Secretary, Regional Development and Outdoor Recreation	
Recommender 2	Tim J Ada (DJSIR)	07/03/2024 11:08 AM	Secretary	96519999
Notified of recommendation	[Notify of recommendation full name and title]			

Outdoor Recreation			
REQUESTED <input type="checkbox"/>	DJSIR REF: BMIN-2-24-36239	MINISTERIAL REF:	DATE DUE IN MO: N/A if not relevant

Recommendations

That you:

- a)

Sign and date the attached Wildlife (Prohibition of Game Hunting) Notice by 11 March 2024 to modify the 2024 duck hunting season (**Attachment 1**) in your capacity as Minister for Outdoor Recreation.

☒ Approved

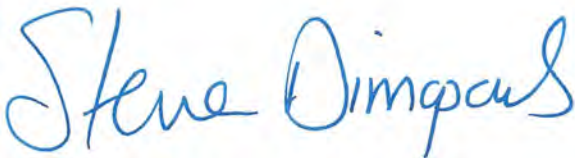
☐ Not Approved

☐ Please Discuss
- b)

Note that a similar brief will be provided by DEECA to you in your capacity as the Minister for Environment, requesting joint endorsement of an identical Notice.

☒ Noted

☐ Please Discuss

To be notified of your decision:	[Notify of decision full name and title]
<div><div>..... Steve Dimopoulos MP Minister for Outdoor Recreation Date: 7/3/24</div></div>	Comments:

Key information

1. **On 29 January 2024 you approved modifications to the 2024 duck hunting season (Attachment 2).**
 - a) The modifications include:
 - a. reducing the duration of the season to 57 days, starting on Wednesday 10 April and closing on Wednesday 5 June 2024. This will override the prescribed 87 day season under the Wildlife (Game) Interim Regulations 2023 (the Regulations);
 - b. reducing daily bag limits to 6 ducks;
 - c. delaying hunting start times to 8:00am across Victoria on every day of the modified open season; and
 - d. prohibiting hunting of the Blue-winged Shoveler and Hardhead.
2. **A draft Notice has been prepared to modify duck hunting arrangements for the 2024 season (Attachment 1).**
 - a) The duck hunting season arrangements are set out in the Regulations, including the season duration and the bag limits, which can be modified by making a Notice under section 86(1) of the *Wildlife Act 1975* (the Act).
 - b) Section 86(1) of the Act permits the Minister for Outdoor Recreation and the Minister for Environment jointly, by way of Notice published in the Government Gazette, to:
 - prohibit absolutely, regulate or control the taking, destroying, or hunting of any particular kind or taxon of wildlife in any area, and for any period specified in the Notice;
 - provide for any relevant exemptions from such prohibitions, limits or controls; and
 - fix penalties of not more than 25 penalty units for any contravention of such a Notice.
 - c) Pursuant to section 86(3) of the Act, a Notice which is made under section 86(1) of the Act will prevail over any inconsistent regulation, including regulations made pursuant to the Act, and over any inconsistent authority granted by way of licence, permit or other authority.
3. **The Minister for Outdoor Recreation and the Minister for Environment are required to jointly approve the Notice.**
 - a) The Minister for Outdoor Recreation and the Minister for Environment jointly administer section 86 of the Act under the General Order. Therefore, each Minister must approve the Notice for it to come into operation.
 - b) A Notice is attached for your approval and signature in your capacity as the Minister for Outdoor Recreation (Attachment 1). DEECA will ask you as the Minister for Environment, to sign an identical Notice to reflect joint administration of recreational hunting arrangements.
4. **Following joint endorsement of the Notice, gazettal and tabling of the Notice will be arranged by DJSIR.**
 - a) The Notice must be published in the Victoria Government Gazette at least 3 days prior to coming into effect and tabled in both houses of Parliament in accordance with the

requirements set out in section 86(5) of the Act and the *Subordinate Legislation Act 1994* (SL Act).

- b) The Notice made under section 86 of the Act, is an exempt legislative instrument for the purposes of the SL Act, as prescribed by item 130.4 of the Subordinate Legislation (Legislative Instrument) Regulations 2021, however tabling and disallowance requirements apply to the Notice under both section 86(5) of the Act and sections 15, 23, 24 and 25 of the SL Act.
- c) A copy of the Notice must be laid before both houses of Parliament on or before the sixth sitting day after publication of the Notice in the Victorian Government Gazette. The Notice may be disallowed in whole or in part by either House of Parliament, under section 86(7) of the Act.

5. It is recommended that you sign and date the Notice by 11 March 2024 to enable it to be gazetted by 12 March 2024, otherwise duck hunting season arrangements set out in the Regulations will apply.

- a) Arrangements for hunting during the open season for duck are prescribed in the Regulations, including:
 - i. the open season commences from the beginning of the third Saturday in March and ends 30 minutes after sunset on the second Monday of June (regulation 30 and Schedule 3);
 - ii. the prescribed bag limit is a maximum of 10 ducks per day including a maximum of 2 Australasian (Blue-winged) Shoveler (regulation 31 and Schedule 4); and
 - iii. duck hunting is only permitted during the open season from half an hour before sunrise until half an hour after sunset on every day of the season (regulation 48).

6. As the Minister for Outdoor Recreation, you may be requested to sign further Notices under section 86 of the Act to close wetlands to hunting either prior to or during the 2024 duck hunting season.

- a) Wetlands will be surveyed throughout Victoria from 27 February until 14 March 2024 as a part of the annual waterfowl count coordinated by the Arthur Rylah Institute. These surveys identify any wetlands that may require closure to hunting to protect rare and threatened species or to avoid disturbing colonies of breeding waterbirds.
- b) The results of the survey will be available by late March 2024 and considered by agencies (GMA, DEECA and DJSIR) at that time.
- c) If any wetlands are required to be closed to hunting to protect significant numbers of threatened species or breeding waterbirds, you as the Minister for Outdoor Recreation will be requested to sign further Notices under section 86 or section 86A (emergency closure Notice) of the Act before the season commences.
- d) You will also be requested to sign an identical Notice prepared by DEECA, in your capacity as the Minister for Environment, to reflect joint administration of recreational hunting arrangements.
- e) Wetlands are monitored by the GMA and DEECA during the duck hunting season. You may be asked to sign further Notices should they be required, to close additional wetlands or to reopen wetlands to hunting once the risk to threatened species or breeding waterbirds has sufficiently reduced.

- 7. Under section 4B of the *Flora and Fauna Guarantee Act 1988* (FFG Act), Ministers and public authorities must give proper consideration to the objectives of the FFG Act and the potential impacts on biodiversity when performing statutory functions that may impact biodiversity.**
- a) The objectives of the FFG Act are set out in section 4 and are:
- i. to guarantee that all taxa of Victoria's flora and fauna, other than taxa specified in the Excluded List, can persist and improve in the wild and retain their capacity to adapt to environmental change; and
 - ii. to prevent taxa and communities of flora and fauna from becoming threatened and to recover threatened taxa and communities so their conservation status improves; and
 - iii. to protect, conserve, restore and enhance biodiversity, including—
 - flora and fauna and their habitats; and
 - genetic diversity; and
 - ecological communities; and
 - ecological processes; and
 - iv. to identify and mitigate the impacts of potentially threatening processes to address the important underlying causes of biodiversity decline; and
 - v. to ensure the use of biodiversity as a natural resource is ecologically sustainable; and
 - vi. to identify and conserve areas of Victoria in respect of which critical habitat determinations are made.
- b) Consideration has been given to the impacts of a 2024 duck hunting season on biodiversity. The proposed 2024 duck season arrangements are consistent with the objectives of the FFG Act, and support the sustainability of game duck populations in Victoria.
- c) The Game Management Authority (GMA) recommendations for the 2024 season arrangements considered the available science on game duck distribution, abundance and habitat so that the recommended daily game duck bag limit and season length was set at an ecologically sustainable level.
- d) You adopted a precautionary approach and, in your capacity as Minister for Outdoor Recreation and in your capacity as Minister for Environment, you announced a reduced daily bag limit and season length from those recommended by the GMA.
- e) Impacts on non-target species, including threatened species, are not expected to be significant and are managed through several means including education, waterbird identification testing and the closure of wetlands, or further regulation of hunting at wetlands, to protect significant numbers of threatened species and breeding waterbird colonies.
- f) You also announced that the hunting of game ducks that are listed as threatened species under the FFG Act will be banned this year.

Financial Implications

8. Are there any financial implications associated with this matter?

☐ Yes

☒ No

Consultation

8. DJSIR Legal and Legislation and DEECA were consulted in the preparation of this brief and Notice.

Electronically evidenced by	Name	Position
	<i>Name and details appear only after authorisation has been electronically evidenced</i>	
Lead Author	(DJSIR)	Outdoor Recreation Policy

Attachments

No.	Attachment name
1	Attachment 1 – For Signature - Wildlife (Prohibition of Game Hunting) Notice
2	Attachment 2 – BMIN-2-24-36155 – 2024 Duck Season Recommendations

Wildlife Act 1975

WILDLIFE (PROHIBITION OF GAME HUNTING) NOTICE No. 1/2024

I, Steve Dimopoulos, as Minister for Outdoor Recreation and as Minister for Environment make the following Notice:



STEVE DIMOPOULOS MP

Minister for Outdoor Recreation

Date: 7 / 3 / 24



STEVE DIMOPOULOS MP

Minister for Environment

Date: 7 / 3 / 24

1. Objective

The objective of this Notice is to—

- (a) prohibit absolutely the taking, destroying or hunting in Victoria of specified indigenous game birds (waterfowl), and
- (b) otherwise regulate and control the taking, destroying or hunting of specified indigenous game birds (waterfowl);

which would otherwise be permitted during the 2024 open season.

2. Authorising provision

This Notice is made under section 86 of the **Wildlife Act 1975**.

3. Notice prevails

Under section 86(3) of the **Wildlife Act 1975** this Notice prevails over any inconsistent regulation made under the **Wildlife Act 1975** or any licence, permit or other authority to take, destroy or hunt any particular kind or taxon of wildlife issued under the **Wildlife Act 1975**.

4. Definitions

In this Notice:

2024 modified open season means the open season in 2024 for indigenous game birds (waterfowl) as modified by clause 6 of this Notice;

default bag limit for indigenous game birds (waterfowl) means the maximum number of indigenous game birds (waterfowl) that a person may take or destroy on any day during an open season as prescribed by regulation 31 and items 8 to 15 of Schedule 4 of the Wildlife (Game) Interim Regulations 2023;

indigenous game birds (waterfowl) means any of the following, being the kinds or taxa of game set out in Part 3 of Schedule 3 of the Wildlife (Game) Interim Regulations 2023:

- (a) Pacific Black Duck (*Anas superciliosa*);
- (b) Australasian (Blue-winged) Shoveler (*Anas rhynchos*);
- (c) Chestnut Teal (*Anas castanea*);
- (d) Grey Teal (*Anas gracilis*);
- (e) Hardhead (White-eyed Duck) (*Aythya australis*);
- (f) Australian Shelduck (Mountain Duck) (*Tadorna tadornoides*);
- (g) Pink-eared Duck (*Malacorhynchus membranaceus*); and
- (h) Australian Wood Duck (Maned Duck) (*Chenonetta jubata*).

5. Commencement and period Notice has effect

This Notice takes effect from 12.00 am on 16 March 2024 and continues to have effect until 11.59pm on 10 June 2024.

6. Modification of 2024 open season

The open season prescribed in Part 3 of Schedule 3 of the Wildlife (Game) Interim Regulations 2023 in relation to indigenous game birds (waterfowl) is modified in relation to the 2024 open season to be from 8.00 a.m. on 10 April 2024 to 30 minutes after sunset on 5 June 2024.

7. Prohibition on hunting of specified indigenous game birds (waterfowl)

- (a) The taking, destroying or hunting of any indigenous game bird (waterfowl) is prohibited:
 - i. at all times from 12.00am on 16 March 2024 until 8.00 am on 10 April 2024; and
 - ii. at all times from 30 minutes after sunset on 5 June 2024 to 11.59 pm on 10 June 2024.
- (b) The taking, destroying or hunting of the Australasian (Blue-winged) Shoveler (*Anas rhynchos*) is prohibited during the 2024 modified open season, anywhere in Victoria.
- (c) The taking, destroying or hunting of the Hardhead (White-eyed Duck) (*Aythya australis*) is prohibited during the 2024 modified open season, anywhere in Victoria.
- (d) The taking, destroying or hunting of any indigenous game bird (waterfowl) from anywhere in Victoria is prohibited during the following times on each day of the 2024 modified open season:
 - i. 12.00 a.m. until 8.00 a.m.; and
 - ii. From 30 minutes after sunset until 12.00 a.m.

8. Modification of default bag limit for indigenous game birds (waterfowl)

- (a) The default bag limit for indigenous game birds (waterfowl) is modified to a maximum of six indigenous game birds (waterfowl), on any day during the 2024 modified open season.
- (b) Clause 7 prevails over this clause to the extent of any inconsistency.

9. Contravention of Notice

A person must not contravene any part of this Notice.

Penalty: 25 penalty units.

Preliminary results from the 2023 survey of game ducks in Victoria.

Dave Ramsey, Ben Fanson, Arthur Rylah Institute, DEECA, Victoria.

1.1 Preamble

Aerial surveys of game ducks were undertaken between 16th October and 3rd November 2023. Ground counts were undertaken from 17th October – 6th November 2023. Monitoring was undertaken for different types of water bodies including wetlands, dams, sewerage treatment ponds, rivers and streams, which were also categorised according to size class (< 6 ha, 6-50 ha, >50 ha). Waterbodies were further stratified into four broad geographic regions in the state (North, South, East and West).

Total abundance estimates were calculated for each game species across all waterbodies within Victoria of the types specified above (the sampling frame). Estimates of the number of waterbodies of each type containing surface water were based on analysis of recent satellite imagery (Landsat and Sentinel-2). The following report provides preliminary results from the analysis of the 2023 survey data. A more comprehensive analysis and presentation of methods and results will be made available in the final report.

1.2 Methods

1.2.1 Surface water availability

Surface water availability was estimated from analysis of Landsat and Sentinel-2 satellite imagery using the most recent images obtained prior to the survey dates, mostly within the Spring period (September – November). Estimates of surface water used the same methodology as detailed in Ramsey and Fanson (2021) with calibration of Sentinel-2 images undertaken to improve classification accuracy. Calibration used actual observations of surface water within each sampled waterbody obtained during the aerial and ground surveys.

1.2.2 Sampling of game ducks

A total of 865 waterbodies were sampled during the 2023 survey (Table 1). Of these, 802 were monitored from a helicopter (Squirrel AS-350) and 63 monitored from the ground. Both aerial and ground surveys were conducted with two observers conducting counts of game ducks at each waterbody independently. For some large wetlands subject to aerial surveys, counts were obtained from a portion of the waterbody, usually 50% (selected at random), which was then used to impute the count for the entire waterbody. A similar method was used for ground counts where only a portion of the waterbody was monitored.

Counts of Chestnut teal on waterbodies surveyed from the ground were partitioned separately into adult male and females. These counts were then used to determine the mean ratio of male/female Chestnut teal. This ratio was subsequently used to adjust the counts of Chestnut teal counted from the helicopter, which only included observations of males.

A total of 738 of the 802 waterbodies subject to aerial survey were observed with surface water (92%). No waterbodies were observed to be completely dry during ground surveys (Table 1).

Table 1. Waterbodies sampled by aerial and ground surveys during 2023. The number of these waterbodies observed with surface water are given in parenthesis.

Waterbody type	Aerial	Ground	Totals
Dams	209 (197)	17 (17)	226 (214)
Sewage ponds	5 (5)	33 (33)	38 (38)
Wetlands	497 (445)	13 (13)	510 (458)
River/Streams	91 (91)	0	91 (91)
Total	802 (738)	63 (63)	865 (801)

1.2.3 Abundance estimation

The two independent replicate counts of ducks at each sampled waterbody were used to estimate the abundance of ducks at each waterbody, corrected for imperfect detection (birds missed by the observers) using a N-mixture model approach (Ramsey and Fanson 2021). Parameters for abundance and probability of presence were estimated separately for each duck species with a common set of parameters for the detection probability component. Models were fitted in a Bayesian framework using *Stan* (Carpenter *et al.* 2017).

Prediction of game duck abundance for the entire sampling frame (i.e. waterbodies containing water within Victoria) were estimated using a design-based approach (Thompson 1992). Design-based estimates of total abundance used a Horvitz-Thompson estimator, based on the stratum-level, selection probabilities calculated for each waterbody (Horvitz and Thompson 1952). Model-based estimates of abundance are currently also being investigated and will be detailed in the final report. Further details of the abundance estimators and their variance are given in Ramsey and Fanson (2021).

1.3 Results

1.3.1 Surface water availability

Overall, surface water availability in 2023 has declined slightly since 2022 for both wetlands and dams but was still higher than in either 2020 or 2021 (Figure 1).

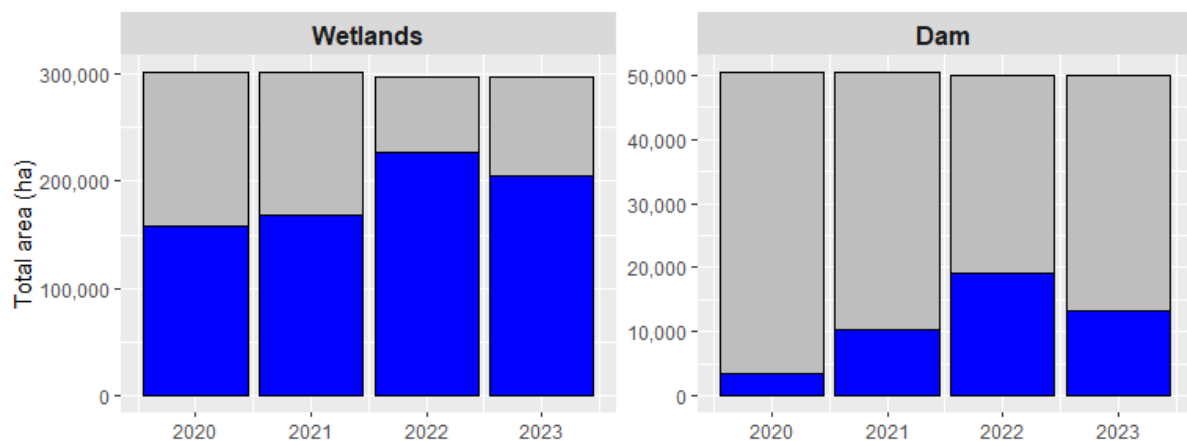


Figure 1: Temporal pattern in surface water for Victorian waterbodies over the last four years.

1.3.2 Game duck abundance estimates for Victoria

Counts of the each of the eight species of game duck revealed that both Chestnut and Grey teal were the most numerous species encountered during the surveys, followed by Black Duck and Wood Duck (Table 2).

Table 2. Total counts of each species by waterbody type. The maximum of the two counts for each waterbody was used to calculate the total. Species codes are: GT = Grey Teal; CT = Chestnut Teal; WD = Australian Wood Duck; PBD = Pacific Black Duck; AS = Australian Shelduck; HH = Hardhead; PED = Pink-eared Duck; BWS = Australasian Shoveler. *n* = number of waterbodies with surface water.

Waterbody type	n	GT	WD	AS	PBD	CT	HH	PED	BWS
Dams	214	1671	1262	317	1300	1084	360	46	34
Sewage ponds	38	6466	808	587	842	1537	3178	3505	194
Streams	91	241	1284	58	750	279	13	0	6
Wetlands	458	33859	3305	3637	9139	39144	3018	2548	554
Total	801	42237	6659	4599	12031	42044	6569	6099	788

Aerial and ground survey data were adequate to estimate abundance for all eight species of game duck, including the major game species (Table 3). Design-based estimates indicated that the population of game ducks on dams, sewage ponds, wetlands and streams in Victoria was approximate 7.1M birds (Table 3). Wood Duck were the most numerous game species (~2.6 M), followed by Pacific Black Duck (~1.4 K) and Grey and Chestnut Teal (~1.4 & 1.2M). Precision of the overall estimate of abundance was good, with a 8% (0.08) coefficient of variation, well within the target threshold of 15% identified by Ramsey and Fanson (2021) as being of adequate precision. Precision of estimates for the main individual game species was variable ranging from 12% for Grey Teal to 23% for Black Duck (Table 3).

Table 3: Summary of design-based estimates of total abundance of seven game duck species in Victoria. SE – Standard error; CV – coefficient of variation; L95 – lower 95% confidence interval; U95 – upper 95% confidence interval.

Species	Estimate	SE	CV	L95	U95
Australian Wood Duck	2,567,300	440,600	0.17	1,838,500	3,585,100
Australian Shelduck	354,400	92,800	0.26	213,900	587,100
Australasian Shoveler	11,600	2,800	0.24	7,300	18,500
Chestnut Teal	1,227,800	185,500	0.15	914,700	1,648,100
Grey Teal	1,401,500	162,300	0.12	1,117,900	1,757,200
Hardhead	156,100	51,400	0.33	83,300	292,600
Pacific Black Duck	1,358,200	310,100	0.23	873,100	2,112,900
Pink-eared Duck	43,600	9,800	0.23	28,200	67,500
Total	7,120,600	602,000	0.08	6,035,100	8,401,400

1.4 Conclusions

The total statewide abundance of game ducks has increased markedly from the previous year, most likely driven by the extensive flooding and presence of surface water driving breeding activity during 2022. It should be noted that the estimates contained with this report are of a preliminary nature only and may be subject to revision in the final report. Further work is also currently being undertaken on model-based estimates of abundance, which will be detailed in the final report, due on the 28th February 2023.

1.5 References

- Carpenter, B., Gelman, A., Hoffman, M. D., Lee, D., Goodrich, B., Betancourt, M., Brubaker, M., Guo, J., Li, P., and Riddell, A. (2017). Stan : A Probabilistic Programming Language. *Journal of Statistical Software* **76**, 1–32. doi:10.18637/jss.v076.i01
- Horvitz, D. G., and Thompson, D. J. (1952). A generalization of sampling without replacement from a finite universe. *Journal of the American Statistical Association* **47**, 663–685.
- Ramsey, D. S. L., and Fanson, B. (2021). Abundance estimates of game ducks in Victoria: Results from the 2020 aerial survey. Arthur Rylah Institute for Environmental Research Technical Report Series No. 325, Department of Environment, Land, Water and Planning, Heidelberg, Victoria.
- Thompson, S. K. (1992). 'Sampling'. (John Wiley & Sons: New York.)

To: Minister for Environment

VICTORIA
State
GovernmentEnergy,
Environment
and Climate Action

MBR-240101942 - 2024 Duck Hunting Season Recommendations

Security classification: Official

Response prepared by: Regions, Environment, Climate Action and First Peoples, Biodiversity, Biodiversity Regulatory Reform and Emergencies.

Timing: Preferred. Due 01/02/2024. To enable an announcement on the 2024 duck hunting season arrangements as soon as possible.

Core Message

The Game Management Authority (GMA) wrote to you on 16 January 2024 to recommend modified arrangements for the 2024 duck hunting season, in line with the output from the Interim Model for Duck Harvest Management (Interim Harvest Model). The Department of Energy, Environment and Climate Action (DEECA) has reviewed the GMA brief, including supporting information, and recommends that, should you support a duck season this year, you proceed with a modified season in line with the GMA's advice.

Recommendations

1. APPROVE subject to your decision as to whether a duck hunting season should proceed in 2024, a modified 2024 duck season as recommended by the Game Management Authority (GMA) and in line with the output from the Interim Harvest Model for Duck Harvest Management.



Not approved

2. NOTE the legal instruments required to modify the season will be provided to you as both the Minister for Environment and the Minister for Outdoor Recreation for signature via a subsequent brief following your decision on the season arrangements.



Noted

3. NOTE that should you approve a duck season this year, you will be briefed prior to the season commencing regarding wetlands recommended for closure to duck hunting due to the presence of significant numbers of threatened species or large colonies of breeding waterbirds.



Noted



Decision recorded by **Steve Dimopoulos MP**,
Minister for Environment at 3:19 PM Wed, 06 Mar 2024

Minister for Environment Comments:

Please discuss with CoS Jarran Heyward. ED Biodiversity has been advised

From Regions, Environment, Climate Action and First Peoples
Title 2024 Duck Hunting Season Recommendations

Key Information

1. Duck hunting is permitted in Victoria under section 22A of the *Wildlife Act 1975* (Wildlife Act) the Act. The hunting provisions contained in the Act are jointly administered by the Minister for Outdoor Recreation and the Minister for Environment. This brief is to recommend that you make a policy decision as Minister for Environment, based on advice from the Department of Energy, Environment and Climate Action (DEECA), in relation to proceeding with arrangements for the 2024 duck hunting season.

Modifications to the annual duck hunting season are jointly administered

2. Following a consistent policy decision from both Environment and Outdoor Recreation portfolios, mirror briefings for a legal decision to reflect the policy decision will be prepared by DEECA and DJSIR. Under the Administration of Acts General Order issued by the Premier of Victoria, legislative provisions relevant to duck hunting season arrangements are jointly administered by the Minister for Outdoor Recreation and the Minister for Environment. A joint Ministerial decision (signed by you in both capacities) relies on it being the same decision, with the same supporting reasons. DEECA and DJSIR will work together to provide you with consistent advice to support making the joint decision in this way.
3. Subject to the policy decision, the legal notice under section 86 of the *Wildlife Act* will be provided to you for signature in a further brief. The notice will then be gazetted so that any modifications from the prescribed season arrangements can take effect.
4. The Game Management Authority (GMA) is responsible for regulating hunting in Victoria and enforcing compliance with hunting laws.
5. Arrangements for duck hunting season (length, start times, species composition and bag limits) are prescribed by the *Wildlife (Game) Interim Regulations 2023*; however, the Ministers may modify the prescribed arrangements by way of notices issued under the *Wildlife Act*. Modifications to the season arrangements are generally recommended by the GMA Board.
6. In the absence of a decision to the contrary, the following default arrangements are prescribed by regulation:
 - a. the open season for duck hunting runs from the third Saturday in March until the second Monday in June and
 - b. the bag limit is 10 birds per person per day (including a maximum of two Blue-winged Shoveler).

GMA recommendations for the 2024 duck hunting season

7. The GMA Board wrote to you, within the context of the existing policy and legislative setting, in your capacity as Minister for Outdoor Recreation on 16 January 2024 to recommend arrangements for the 2024 duck hunting season (**Attachment 1**). The GMA recommends the following arrangements for 2024:
 - a. a slightly modified season length to accommodate a mid-week closing from 20 March to 10 June 2024 inclusive (11.5 weeks instead of 12)
 - b. modified daily bag limit of nine game birds for the season (instead of 10)
 - c. delayed hunting start times to 8.00 am across the state from 20 March to 24 March 2024 inclusive (instead of 'dawn') and
 - d. prohibition of the hunting of Blue-winged Shoveler and the Hardhead.
8. In forming its recommendations on the upcoming duck season, the GMA considered the output from the Interim Harvest Model for Duck Harvest Management (Interim Harvest Model). The Interim Harvest Model incorporates data from the Eastern Australian Waterbird Survey (EAWS), which provides information on game bird distribution, breeding and abundance, winter/spring rainfall data, hunter bag harvest survey data from the previous year, LANDSAT satellite imagery data on water surface area, and data from the annual Priority Waterbird Count to further inform duck abundance estimates.

9. The Interim Harvest Model output for 2024 has recommended a daily bag limit of nine game ducks (**Attachment 2**).
10. The EAWS (**Attachment 3**) found that:
 - a. Most game species in 2023 had abundances well above the long term average. Total waterbird abundance in 2023 increased significantly from 2022 to well above the long-term average. Total abundances have increased from the previous year because of increased breeding in 2022.
 - b. Three major indices for waterbirds (total abundance, number of species breeding and wetland area index) continue to show significant declines over the last 40 years of the survey. The pattern of long-term decline has continued for five of the eight game species (Pacific Black Duck, Australasian Shoveler, Grey Teal, Mountain Duck, Wood Duck).
 - c. Availability of wetland habitat is a major driver of waterbird abundance, breeding and diversity. Reductions in habitat area and persistence due to climate change, river regulation and water extraction have resulted in ongoing long-term declines particularly in the Murray Darling basin. Purchases and timed releases of environmental water to support breeding or habitat retention have offset some of the ongoing impacts of regulation.
11. The 2023 Victorian game duck abundance estimate, based on an annual aerial and land survey of Victoria's game duck population, estimated the total abundance of game ducks in Victoria was 7.1 million birds, up from 2.41 million in the previous year, with increases recorded in all game duck species.
12. The GMA reports that habitat conditions for game ducks improved throughout eastern Australia in 2022 and led to large-scale breeding. This resulted in an increase in game duck abundance in 2023 to levels above average. Birds are widely dispersed across eastern Australia. El Niño conditions have returned to Australia which resulted in dry conditions in late-winter-early spring 2023. As a result, habitat extent declined across eastern Australia. Drier winter and spring conditions in 2023 also saw a reduction in breeding from waterbirds from the highs of 2022, including game ducks, but was about average in 2023.
13. The 2023 New South Wales Riverina waterfowl abundance survey found game duck numbers increased from the previous year by almost 4.5 times and were 3.5 times greater than the long-term average of 1.21 million.
14. The South Australian Department of Environment and Water reported in confidence that surveys of 90 wetlands in spring 2023 had detected game ducks at 15% above the long-term average, while aerial surveys showed an 18-fold increase in game duck abundance compared to the previous year.
15. Forecasts from the Bureau of Meteorology predicted an increased chance of above median rainfall in January for parts of Queensland, NSW and Victoria, and a more neutral outlook in February and March.
16. Other relevant information considered by the GMA is described in its brief and summary of considerations for the 2024 duck hunting season (**Attachment 4**).
17. A mid-week season start (rather than the prescribed weekend start) and delayed start times for the first few days have been recommended to reduce the appeal of the opening weekend and thereby reduce hunter density. These measures have been used since 2018, after the opening weekend of the 2017 duck season saw some hunters shoot before the start-time and leave behind many deceased game and non-game species.

Threatened species

18. The Blue-winged Shoveler and the Hardhead Duck were listed as threatened under the *Flora and Fauna Guarantee Act 1988* in 2021 (FFG Act). As such, the GMA has recommended the prohibition of hunting these game species statewide in 2023, as occurred in 2022. The Blue-winged Shoveler has not been hunted in Victoria since 2016 due to ongoing concern over its conservation status.
19. A Notice of Preliminary Recommendation of the Scientific Advisory Committee (SAC) to delist the Hardhead as a threatened species under the FFG Act was published in the Government Gazette on 22 December 2023. The 30 day public comment period closed on 21 January 2024. The SAC will review and consider any new scientific information that has been submitted during the comment period at their upcoming meeting scheduled for 5 February 2024. Following this, the SAC will make a final recommendation to you and the Minister for Agriculture regarding whether the Hardhead should be delisted from the FFG Act Threatened List.

20. In accordance with the FFG Act, you and the Minister for Agriculture will have up to 60 days to decide on whether or not to support the SAC's recommendation (which can only take nature conservation matters into account).
21. Until a final decision on the application to de-list the Hardhead it will remain unavailable for hunting this season. If the Hardhead is delisted partway through the season, it is possible that the GMA will write to you recommending that the prohibition on hunting of Hardhead be removed during the remainder of the season.

Advice from DEECA

22. Should you decide to proceed with a duck hunting season this year, DEECA recommends proceeding with the GMA's recommendations because it is based on the output of the Interim Harvest Model.
23. The Interim Harvest Model report notes that if any of the inputs to the model are truly extreme and unlike any previous conditions over the past 30 years (for example, a one-in-30-year drought), the Interim Harvest Model output may not be reliable.
24. DEECA does not consider there to be a substantive basis upon which to deviate from the Model output should a duck season be declared this year.

Stakeholder comments

25. The GMA provided stakeholders with the opportunity to provide advice on the arrangements for the 2024 duck hunting season. Eight submissions were received including four from hunting organisations. All hunting organisations recommended a full season and a prescribed daily bag limit of either nine or 10 birds per person. The remaining submissions were from Animals Australia, the Coalition Against Duck Shooting, Regional Victorians Opposed to Duck Shooting and Wildlife Victoria that all recommended the cancellation of the 2024 duck hunting season. A summary of the stakeholder submissions is included at **Attachment 5**.
26. Community views and interests in the duck hunting seasons are diverse and polarised. Key stakeholders include hunting organisations, and conservation, animal welfare and anti-duck hunting groups. DEECA will continue to work with relevant agencies and respond to any media and community enquiries.

Wetland closures

27. Should you approve a duck season this year, you will be briefed prior to the season commencing regarding wetlands that are recommended to be closed to duck hunting due to the presence of significant numbers of threatened species or large colonies of breeding waterbirds.
28. Recommendations for wetland closures are primarily based on the results of the annual priority waterbird count but can also be recommended after the waterfowl count immediately before or during the season.
29. Most wetland closure recommendations will occur in the weeks before the hunting season commences, with others recommended during the season. Closed wetlands can also be recommended for reopening when the threatened species/breeding waterbirds have moved on and the risk has declined.
30. In a typical season between 5-10 wetlands are closed during the season due to the changing makeup of the species present at the wetlands.
31. Recommendations for wetland closures are made by DJSIR, the GMA and DEECA prior to seeking your approval.
32. Wetland closures are enacted through section 86 notices (or section 86A notices if urgent, e.g. if significant numbers of threatened species are reported at a wetland shortly before the weekend when hunting activity generally increases and the species is at increased risk of being shot or disturbed) under the Wildlife Act. You will need to sign any notices in your capacity as both the Minister for Environment and the Minister for Outdoor Recreation.
33. Last year, several wetlands were closed to duck hunting to protect significant numbers of threatened species, including Lake Connemara and Anderson Inlet which were closed to protect the critically endangered, Orange-bellied Parrot (OBP). OBPs are critically endangered (only 75 individuals remaining in the wild) and are at high risk of extinction in the wild. OBPs are also highly susceptible to disturbance.

Context

34. The following native ducks in Victoria are declared as game: Pacific Blue Duck, Grey Teal, Chestnut Teal, Blue-winged Shoveler, Mountain Duck, Wood Duck, Pink-eared Duck and Hardhead Duck.
35. Section 86 of the Wildlife Act enables the Minister for Environment and the Minister for Outdoor Recreation to modify the duck season arrangements from those prescribed in the regulations by way of a notice that must be gazetted. The Ministers are not required to consider the GMA's advice under section 86; however, it is current convention because one of the functions of the GMA under the *Game Management Authority Act 2014* (GMA Act) is to make recommendations to the Minister for Outdoor Recreation on game hunting and game management.
36. Section 8A of the GMA Act requires the GMA to have regard to the following guiding principles when exercising its powers or performing its functions:
 1. integrated decision-making
 2. triple bottom-line assessment, which means an assessment of all the economic, social and environmental costs and benefits, taking into account externalities
 3. equity between persons and generations
 4. evidence-based approach, which means considering the best available information when making decisions and
 5. stakeholder engagement and community participation.
37. The Interim Harvest Model was developed by independent experts in 2021. The preparation of an Interim Harvest Model was a recommendation by an expert panel appointed by the then Minister for Agriculture in 2019. The expert panel recommended a simple harvest management framework be adopted to inform harvest recommendations while the longer-term adaptive harvest management model for waterfowl is being developed.
38. The Victorian Government's *Sustainable Hunting Action Plan 2016-2020* committed to implementing adaptive harvest management for setting sustainable duck hunting arrangements in future years, which was also a 2018 election commitment.
39. Work is underway to develop and implement the adaptive harvest management model. However, to build and validate the model, game duck abundance data must be collected over several years before it is considered operational. This data collection started in 2020 by way of a helicopter survey of waterfowl conducted by the Arthur Rylah Institute (ARI) (ie. the Game Duck Abundance Survey discussed above).

Consultation

DJSIR, and DEECA Legal and Legislation Division were consulted in the preparation of this brief.

Attachments

No.	Attachment name
1	Brief from the GMA board recommending a modified 2024 duck hunting season.
2	Interim Harvest Model Output for 2024
3	Aerial Survey of Wetland Birds in Eastern Australia October 2023 Annual Summary Report
4	Summary of considerations for 2024 duck season
5	Summary of stakeholder positions

To: Minister for Outdoor Recreation



RECOMMENDATIONS FOR THE 2024 DUCK SEASON ARRANGEMENTS

Core message

- The GMA provides these recommendations in the context of the existing policy and legislative setting.
- Information on game duck population status and environmental variables has been considered by the Game Management Authority Board to determine whether any modification to the prescribed duck season arrangements is required to ensure sustainability.
- Habitat conditions for game ducks improved throughout eastern Australia in 2022 and led to large-scale breeding. This resulted in an increase in game duck abundance in 2023 to levels above average. Birds are widely dispersed across eastern Australia. El Niño conditions have returned to Australia which resulted in dry conditions in late-winter-early spring 2023. As a result, habitat extent declined across eastern Australia. Drier winter and spring conditions in 2023 also saw a reduction in breeding from waterbirds from the highs of 2022, including game ducks, but was about average in 2023.
- November, December and early-January have recorded above average rainfall across large parts of eastern Australia, with conditions likely to remain favourable into Autumn 2024.
- The interim harvest model developed by respected scientists recommends a reduced daily bag limit of nine ducks. After considering all available information, the GMA does not consider there is substantive evidence that contra-indicates that recommendation.
- The GMA also recommends that the season should open at a later date mid-week with later start times for the remainder of the week to improve safety, compliance and sustainability outcomes, and that two game duck species should be prohibited from hunting due to their threatened status.
- The GMA is available to brief you on this recommendation in person should you wish.

Due	As soon as possible
Explanation	To allow the broader community, industry, the hunting community and government agencies to make arrangements.

Recommendation

That you:

1. approve the GMA recommendation to modify the 2024 duck season by:
 - i. adopting a daily bag limit of nine (9) ducks per day
 - ii. adopting a slightly reduced season length to accommodate a mid-week opening, commencing on Wednesday 20 March and ending on Monday 10 June 2023, inclusive
 - iii. delaying hunting start times to 08:00 from Wednesday 20 March to Sunday 24 March, inclusive
 - iv. prohibiting the Blue-winged Shoveler and Hardhead from being hunted for the 2024 duck season due to their threatened status.

Recommendation 1 ☐ Endorsed ☐ Not endorsed ☐ Noted ☐ Returned for review

2. note that the GMA will inform the community on the final seasonal arrangements and conduct compliance operations together with its partner agencies.

Recommendation 2 ☐ Endorsed ☐ Not endorsed ☐ Noted ☐ Returned for review

To: Minister for Outdoor Recreation



3. advise whether you would like an in-person briefing from staff and Chair of the Board on the above recommendations.

Recommendation 3 ☐ Endorsed ☐ Not endorsed ☐ Noted ☐ Returned for review

Minister's Comments

Signed

Hon Steve Dimopoulos MP
Minister for Outdoor Recreation

Date

Approved by

A handwritten signature in black ink, appearing to read "Chris Rose", with a red horizontal line underneath.

Date

16 January 2024

Chris Rose, Chairperson Game Management Authority 📞 [redacted]

Endorsed by: Graeme Ford, CEO Game Management Authority 📞 [redacted]

Prepared by: Simon Toop, Director Strategy and Research, Game Management Authority 📞 [redacted]

To: Minister for Outdoor Recreation



From GAME MANAGEMENT AUTHORITY
Title RECOMMENDATIONS FOR THE 2024 DUCK SEASON
 ARRANGEMENTS

Ref
File
Due As soon as possible

1. Key Information

Parliamentary inquiry

The Game Management Authority (GMA) recognises that government is currently considering recommendations from the Parliamentary Select Committee on Victoria's recreational native bird hunting arrangements. Until the government responds to the inquiry findings, current government policy allowing recreational duck hunting prevails and this brief is provided to you for consideration on that basis. The focus of this brief is specifically on duck hunting arrangements as they relate to bag limits, season length, hunting times and game species if a season is to be held in 2024.

Should government decide to continue recreational native bird hunting in Victoria, the GMA will work closely with partner agencies to implement government policy decisions. Depending on the nature of any reforms the government may decide to implement, and the timing of an announcement of the decision, additional time may be required to implement them prior to the commencement of a hunting season.

Sustainable duck hunting in Victoria

Arrangements for the annual duck season (bag limits, season length, game species, hunting methods and times) are prescribed in the Wildlife (Game) Interim Regulations 2023. However, to ensure that duck hunting remains sustainable from a population perspective, a number of environmental and game duck population variables are monitored and reviewed annually to determine whether any modification to these arrangements is required. These include the abundance, distribution and extent of breeding of game ducks, the distribution and extent of waterfowl habitat and the current and forecast climatic conditions affecting waterfowl populations. All of eastern Australia, and not just Victoria, is considered in recognition of the highly mobile nature of many game duck species and their ability to move large distances in short periods of time.

Information considered

In forming recommendations on the seasonal arrangements, the GMA considered the best available data and science, including Bureau of Meteorology (BOM) published climate data, the Eastern Australian Waterbird Survey (EAWS), Victorian game duck abundance estimates, the New South Wales (NSW) Department of Primary Industries annual Riverina waterfowl abundance survey, South Australian Department of Environment and Water game duck abundance indices and previous Victorian harvest data. The GMA was also guided by the Interim Harvest Model (IHM) output report which considers abundance indices and surface water estimates over four drainage basins of eastern Australia over different time periods to assess game duck population status and recommend a daily bag limit.

The IHM is an important input into the GMA Board's consideration. It was developed by two members (Professors Richard Kingsford and Marcel Klaassen) of an independent government expert panel created to provide advice to government on the approach to setting sustainable duck hunting arrangements. Professor Klaassen updates and runs the model each year with contemporary data (including major inputs from the EAWS) and produces the output report. The IHM adds scientific rigour to the decision-making process.

BOM, EAWS, Victorian game duck abundance estimates and IHM information was shared with hunting, environmental and animal welfare stakeholders who were invited to provide any additional data relevant to decision-making. Some chose to make submissions to the GMA for consideration (see Attachments 3 and 4).

To: Minister for Outdoor Recreation



Summary of conditions

The document *Considerations for the 2024 Duck Season as at 19 December 2023* (see Attachment 1) provides a range of information relating to the status of game duck populations and their habitats across eastern Australia. A summary of this information is provided below.

Habitat availability

For the previous three years (2020-2022), La Niña and other drivers have influenced Australia's climate resulting in significant rainfall and flooding throughout parts of eastern Australia. Water storages, wetlands and waterways benefitted from record 2022 spring rainfall. The EAWS wetland area index was above the long-term average and multi-year rainfall deficiencies experienced during the 2017 – 2019 drought were almost entirely removed from the eastern states.

However, in 2023, El Niño conditions returned to Australia, as well as a positive Indian Ocean Dipole. The result was drier conditions across much of eastern Australia in 2023 up until the end of October. For Australia as a whole, October rainfall was 65% below the 1961–1990 average, the fifth driest October on record (since 1900) and the driest since 2002. Much of south-eastern Queensland had very low August–October rainfall and large areas of three-monthly rainfall deficiencies developed in South Australia and eastern Australia.

In response to the drier conditions, waterbird habitat throughout eastern Australia as at October 2023 declined from the previous year. Despite this, Australian water storages fell only marginally from the previous year (2%) and the important Murray-Darling Basin was at 88% of capacity. The Lake Eyre Basin benefitted from the sixth wettest wet season in 2022-23 in the first part of 2023 but has since experienced drier conditions following. The EAWS wetland area index for 2023 decreased from the previous flood year and was at 78% of the long-term average, ranking 22nd from the 41 years of survey.

Widespread storms in November resulted in above to very much above average rainfall across most of eastern Australia, lifting the total 2023 spring rainfall to average levels. November rainfall throughout most of eastern Australia was in the highest 10% registered since records began. December 2023 also recorded above average rainfall in large parts of eastern Australia, including over most of Victoria.

Rain fell across much of eastern, central and northern Australia during the first week of January 2024, with heavy to locally intense rainfall in some areas of eastern and northern Australia. Heavy rainfall resulted in flood warnings for south-east and central Queensland extending into north-east New South Wales and central, northern and south-east Victoria. Many sites across central and eastern Victoria had the highest January or annual daily rainfall on record. Weekly rainfall totals greater than 100 mm across isolated pockets of central Victoria and New South Wales, south-east coast of Queensland and southern and central pockets of Queensland. Weekly rainfall totals between 50 to 100 mm across areas of central and northern Victoria extending into central and northern New South Wales, and parts of southern, north-western and central Queensland were recorded.

The widespread rainfall from November until present means that a meaningful reduction in habitat availability is unlikely in the short-term.

Distribution of habitat

EAWS results showed 64% of wetland area was found between northern Victoria to central New South Wales. Surface water availability in Victoria declined slightly from 2022 for both wetlands and dams but was still higher than in either 2020 or 2021.

To: Minister for Outdoor Recreation



Game duck abundance

In response to habitat conditions from the previous year, widespread breeding increased abundance for all but one (Mountain Duck, EAWS only) game duck species.

Eastern Australia Waterbird Survey

- The EAWS game duck abundance index for all of eastern Australia increased by almost seven-times from 2022 to the seventh highest recorded in 41 years and 60% above the long-term average. All game duck abundance indices increased except for Mountain Duck. The EAWS Victorian game duck population index increased by almost 25-times from 2022.

Victorian game duck abundance

- The total state-wide absolute abundance of game ducks increased from the previous year. The total estimated abundance of game ducks in Victoria in 2023 was 7.1 million birds, an almost three-fold increase on the previous year (2.41 million) and almost double the four-year average (3.7 million). Abundances for all game duck species increased from the previous year.

NSW Riverina game duck abundances

- Game duck numbers increased from the previous year by almost 4.5 times from 963,902 to 4.295 million birds. 2023 abundance was 3.5 times greater than the long-term average of 1.21 million. Abundances for all game duck species increased from the previous year.

South Australian waterfowl surveys (provided in confidence)

- The South Australian Department of Environment and Water reported in confidence that surveys of 90 wetlands in late-October / early-November 2023 covering 79,951 ha detected 72,395 game ducks, or 15% above the long-term average. Aerial surveys also showed an 18-fold increase in game duck abundance from the previous year, from 9,975 to 182,893 in 2023.

Waterbird distribution

EAWS showed that waterbirds were more widely dispersed across the eastern Australian landscape than last year, however, the majority of birds were found in northern Victoria and central Queensland. Two central Queensland wetlands supported more than 180,000 waterbirds representing 31% of the total abundance. Around 40% of surveyed wetlands supported no waterbirds and included wetlands that were dry.

Waterbird abundance increased in the Lake Eyre Basin from the previous year and declined in the Murray-Darling Basin. Abundance also increased on the north-east and south-east coasts.

Waterbird breeding

Drier conditions in the second half of 2023 saw waterbird breeding species' richness and breeding abundance decrease compared to the very high levels of the previous year, with breeding abundance falling to slightly below the long-term average. Breeding was concentrated in one wetland (73% of total) in central Queensland. Five species comprised 97% of the total breeding recorded. Colonial breeding species (birds that congregate to breed and are easily observed) can provide a proxy measure of game duck breeding.

Little widespread game duck breeding was recorded during the EAWS, although localised breeding was known to occur. The EAWS provides unreliable information on game duck breeding due to their cryptic nature and the habitats they utilise which creates difficulty in detecting nesting adults (game ducks nest in tree hollows, shrubs and on the ground) or broods in dense vegetation.

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Long-term trends

Three major indices for waterbirds (total abundance, number of species breeding and wetland area index) continue to show significant declines over the last four decades. Five out of the eight game duck species show long-term declines in abundance. These declines have largely been attributed to water resource developments (e.g. building of dams, floodplain developments, extraction of water) which have caused widespread degradation and loss of freshwater habitats. A drying climate is also thought to be having an impact.

While not the driver of population decline, hunting during periods when there is low recruitment (e.g. dry periods) removes breeding stock which can negatively affect future recruitment and drive further decline. This is why conditions are regularly monitored and hunting arrangements are modified when required. Similarly, climate change impacts are considered through annual monitoring and review of environmental conditions and population status.

Climate outlook

The influence of drivers such as El Niño and the Indian Ocean Dipole tend to be weaker over the summer months. The long-range forecast for Australia for January indicates an increased chance of above median rainfall for parts of Queensland, New South Wales and Victoria, and more neutral rainfall chances across much of the country. Chances favour drier than average conditions for western parts of Western Australia and the Top End of the Northern Territory. Significant rainfall has already been recorded for most of Victoria and other parts of eastern Australia for January, with some areas subject to varying levels of flooding.

The long-range forecasts increase the chances of drier conditions across the west and north of the country for February and March, but chances are more neutral across the three months for most of southern Queensland, New South Wales, Victoria and south-eastern South Australia (see Figure 1 below).

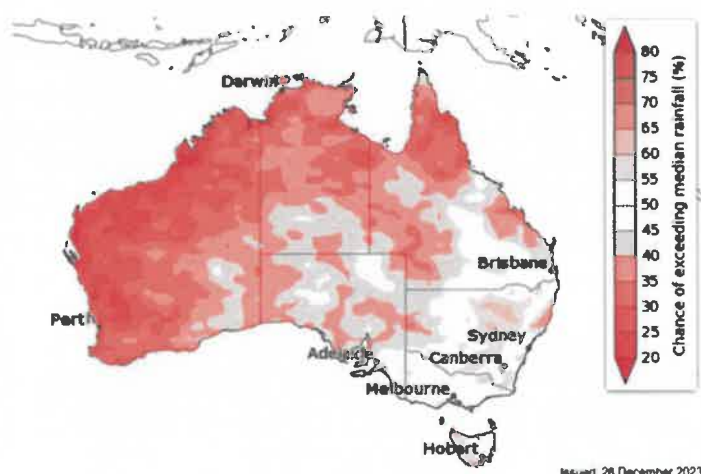


Figure 1: Chances of exceeding median rainfall (%) January – March 2024.

Warmer days and nights are very likely for almost all of Australia with unusually warm daytime and night-time temperatures at least two times more likely than usual.

The El Niño event continues in the tropical Pacific – the typical drying influence of El Niño on Australia's climate usually reduces during summer, especially in the east.

A positive Indian Ocean Dipole (IOD) event remains active but is weakening steadily. Model forecasts suggest the positive IOD is likely to continue to ease.

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Interim harvest model and due diligence assessment

Government established an independent expert panel in 2019 to review the proposed approach to implementing adaptive harvest management (government election and Sustainable Hunting Action Plan commitments). The 2019 expert panel completed its review of the proposal and found that the proposed population model was theoretically sound and appropriate, and it made several other recommendations.

Recommendation 3 was that “a simple harvest management framework be adopted initially, to clearly translate waterfowl monitoring and data on rainfall/wetland availability into harvest recommendations” while ongoing development of the adaptive harvest population model for waterfowl is developed simultaneously as a longer-term goal to assist management. The “interim harvest model” was developed by two members of the government’s expert panel (Professor Marcel Klaassen, Deakin University, and Professor Richard Kingsford, University of New South Wales) to inform and improve transparency, objectivity, and defensibility in decision-making over duck season arrangements while adaptive harvest management (AHM) is being developed.

The model uses information from long-running population data to explore the relationship between game duck abundance (sourced from EAWS and Victorian ground counts), habitat availability (i.e. water surface area, estimated from LANDSAT satellite imagery by the University of New South Wales) and time (1-3 years) for Victoria and a large part of eastern Australia. To counter the inherent uncertainties in the different data sources used and reduce the influence of any one line of evidence, the model uses multiple indices to inform duck hunting arrangements (a multiple lines of evidence approach, in this case, five). It favours adjusting bag limits over season length as the preferred way to regulate seasonal harvest.

Professor Klaassen was engaged to run the model using recent data and produced a report (see Attachment 2). Based on game duck abundance data collected during 2023 in Victoria and throughout a large part of eastern Australia (New South Wales, Victoria and eastern South Australia) and estimates of water surface area in the Murray Darling Basin, Lake Eyre Basin and south-eastern drainage basin, the influence of time (out to three years), and the relationship between the total indices point score and historic seasonal arrangements, the model recommends a bag limit of nine birds per day.

Creators of the IHM recommended that due diligence should be applied when using the model output to inform decisions on duck season arrangements and that other data sources should be considered to provide context and checks and balances to decision-making. The Board found that the data sources and outcomes from consultation from interested parties when considered in the full context of environmental conditions does not contraindicate the model output.

Harvest impact

As part of implementing adaptive harvest management, the Sustainable Hunting Action Plan (SHAP) included an action to determine a sustainable level of offtake and a population threshold below which hunting should be prohibited. An independent review was undertaken by Dr Thomas Prowse, University of Adelaide, and former Chair of the government’s 2019 expert panel, who recommended that a precautionary annual proportional harvest quota of 10 to 20% of the total Victorian game duck population sizes estimated from surveys of each species in spring.

Since 2009 when telephone harvest surveys of hunters began, the long-term average seasonal harvest of game ducks in Victoria is 320,000 birds. In this period, the highest seasonal harvest was 600,739 in 2011. Based on the current Victorian population of 7.1 million game ducks, a sustainable harvest “quota” of 10% would equate to 710,000 birds. A 20% quota would equate to 1.42 million birds. Such harvest levels have not been achieved in Victoria since telephone harvest surveys began.

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Reported harvested birds form only part of the total losses caused by duck hunting. Wounded birds that perish and are not recovered by hunters must be added to the reported harvest to understand the full extent of birds removed from the population by recreational hunting. Evidence shows that death as either a direct or indirect consequence of wounding has been estimated to occur in 73-97% of individuals.

Dr Prowse in his modelling used a 23% wounding rate based on data collected from Australian hunters between 1972 and 1977. For comparison, the United States Fish and Wildlife Service uses a wounding loss figure of 20% in its adaptive management framework. Applying 23% wounding losses to the long-term average seasonal harvest of 320,000 ducks would amount to 95,584 birds being additionally removed from the population, assuming for the purposes of numerical analysis, all wounded birds die. Wounding at 23% and applied to the seasonal harvest high of 600,739 would equate to 179,442 birds.

If wounding losses were added to the long-term average seasonal harvest and the season high harvest, total birds removed by duck hunting would be as follows:

- 320,000 (long-term average seasonal harvest) + 95,584 (23% wounding loss) = 415,584 birds
- 600,739 (highest recorded seasonal harvest since 2009) + 179,442 (23% wounding loss) = 780,181 birds

Harvesting at the long-term average plus 23% wounding (415,584 birds in total) would be 59% of a 10% quota (710,000) of the estimated Victorian game duck population (7.1 million birds). Harvesting at the highest recorded seasonal harvest since 2009 plus 23% wounding (780,181 birds in total) would exceed the 10% quota (710,000) of the estimated Victorian game duck population (7.1 million birds) by approximately 10% (70,181).

The long-term average harvest plus 23% wounding (415,584) would equate to 29% of a 20% harvest quota (1.42 million) of the total Victorian population. The highest recorded harvest plus 20% wounding losses (780,181) would achieve 55% of a 20% sustainable harvest (1.42 million) of the total Victorian population.

These figures show that when using the long-term average harvest or the highest recorded seasonal harvest plus 23% wounding losses, total losses caused by hunting would fall below or slightly above the 10% quota respectively and are well below a 20% quota of the current Victorian total population.

Other management considerations

Mid-week opening with later start times

The GMA Board has previously recommended government implement a mid-week (Wednesday) season opening to reduce the focus on opening weekend to achieve better compliance, safety, sustainability and responsibility outcomes. To support a mid-week opening, it was also recommended to apply a later start time of 08:00 hours from the Wednesday – Sunday, inclusive, during the first week of the season. The GMA again recommends that this be adopted for the 2024 duck season. It is recommended that the season opening day should be Wednesday 20 March, which is four days after when the season would normally open under the regulations (i.e. Saturday 16 March), meaning a slight reduction in season length.

Prohibiting hunting of the Blue-winged Shoveler and Hardhead

In 2021, the Blue-winged Shoveler and Hardhead were both listed as threatened species (vulnerable) under the Victorian *Flora and Fauna Guarantee Act 1988*. Given the listing of these species in Victoria, the GMA Board considers it responsible to prohibit hunting of them in 2024.

The GMA is aware that a Notice of Preliminary Recommendation of the Scientific Advisory Committee to delist the Hardhead as a threatened species under the *Flora and Fauna Guarantee Act 1988* was published in the Government Gazette on 22 December 2023.

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Social and economic impact

The GMA uses the current policy settings, ie. a season as prescribed in the Wildlife (Game) Interim Regulations 2023, as the base line for assessing the social and economic impacts of the recommendations.

The recommendation for a mid-week opening commencing on 20 March reduces the season length by four days from the prescribed season length. The GMA does not believe that these arrangements, nor the later start times for the first five days, will materially change hunter participation rates throughout the entire regulated season. Therefore, it is not considered to create any potential social or economic gains or losses, except in an anticipated improved compliance, safety, and sustainability outcomes.

The IHM recommended a reduced daily bag limit of nine birds per day. This is one less than the prescribed 10 birds per day. This reduction will affect few hunters as most cannot achieve such a daily limit. Therefore, it is unlikely that a nine-bird bag limit will act as a disincentive for the majority of hunters to go hunting.

Hardhead and Blue-winged Shoveler make up a very small percentage of the annual harvest, so precluding these species from hunting in 2024 will have little impact on hunting opportunity.

For those people, businesses or sections of the community who oppose or who are negatively impacted by duck hunting, adoption of the recommended daily bag limit, season length, hunting times and hunted species does not provide further impacts over the current prescribed arrangements.

Animal welfare

The current extent of wounding in duck hunting is unknown, although historic levels have been estimated. Through its RESPECT Hunt Responsibly and REDUCE wounding programs, the GMA works with hunting organisations to raise hunter awareness and encourage responsible hunting behaviours to reduce wounding and improve animal welfare outcomes. A draft Waterfowl Wounding Reduction Action Plan (WWRAP) has been developed as a key action under the government's Sustainable Hunting Action Plan. The WWRAP is currently before government for consideration.

Reducing impacts on non-game wildlife

All duck hunters are required to pass the Waterfowl Identification Test before being allowed to hunt duck in Victoria. The test strives to ensure that hunters have the necessary skills to distinguish between game and non-game waterbirds when hunting. The requirements for passing the test have been increased in recent years. The GMA works with hunting organisations to raise hunters' awareness and the community is encouraged to report illegal hunting to the GMA.

To further minimise the risk of non-game species being illegally destroyed or unduly disturbed, the GMA can recommend that wetlands be closed to duck hunting or additionally regulated (e.g. prohibiting hunting from boats) where significant concentrations of threatened or breeding waterbirds are detected. In conjunction with DEECA, wetlands are surveyed in late-February and where numbers of birds exceed trigger-levels established in report prepared by the Arthur Rylah Institute for Environmental Research (DEECA), a recommendation will be made to you after consultation with key stakeholders. The GMA and DEECA also respond to community reports which are verified and considered for recommendation for closure or further regulation. Fifteen wetlands were closed to hunting last year based on GMA recommendations. Closed or further regulated wetlands are advertised, promoted by GMA, signposted and enforced to maximise compliance.

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2. Context

Duck hunting in Victoria

Duck hunting is permitted under the *Wildlife Act 1975*. The season length, species composition, bag limits and hunting methods are prescribed under the Wildlife (Game) Interim Regulations 2023. Under these regulations, a duck hunting season occurs annually, commencing on the third Saturday in March and concluding on the second Monday in June each year. Eight duck species may be hunted, and the daily bag limit is set at ten game ducks per day, which includes a maximum of two Blue-winged Shoveler. Land classification determines whether hunting is allowed or not.

There are approximately 22,000 licensed duck hunters who, on average, harvest 320,000 game ducks annually.

Modifying a duck hunting season

Under section 86 of the *Wildlife Act 1975*, the Minister, by notice in the Government Gazette, may further regulate the duck hunting season where there is a need to alter the prescribed seasonal arrangements.

Under a Supplement to the General Order for the Administration of Acts dated 1 December 2023, section 86 of the *Wildlife Act 1975* is jointly administered by you, as Minister for Outdoor Recreation and as the Minister for Environment.

Role of the Game Management Authority in setting duck season arrangements

Under section 5(a) of the *Game Management Authority Act 2014* (GMA Act), an objective of the Game Management Authority (GMA) is to 'promote sustainability and responsibility in game hunting in Victoria.'

Under section 6(h), the GMA is to 'monitor, conduct research and analyse the environmental, social and economic impacts of game hunting and game management' and under section 6(i), the GMA may make recommendations to relevant Ministers in relation to:

- (i) game hunting and game management, and
- (iii) open and closed seasons and bag limits.

Also, section 8A 'Guiding principles' requires the GMA to have regard to the following relevant principles when exercising its powers or performing its functions:

- (b) the principle of triple bottom-line assessment, which means an assessment of all the economic, social and environmental costs and benefits, taking into account externalities;
- (d) the principle of an evidence-based approach, which means considering the best available information when making decisions.

The advice provided by the GMA on the annual duck season relates only to season settings for the forthcoming year. It does not relate to the broader policy of allowing duck hunting per se.

Enforcement of the hunting season

The GMA works closely with its regulatory partners to ensure hunting is conducted lawfully and responsibly. Authorised officers from Department of Energy, Environment and Climate Action, Parks Victoria and the Victorian Fisheries Authority, together with Victoria Police, support the GMA during periods of greatest hunting activity and at other times during the hunting season. Enforcement operations are targeted according to a risk-based, intelligence-led approach with a focus on public safety, sustainability and compliance with the law. Random patrols are also conducted throughout the season on both public and private waters.

Communication plan to support the hunting season

The GMA will implement a targeted communication plan using appropriate social and traditional platforms to inform the community on the arrangements for the 2024 duck season once decided by government. If there is

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to be a hunting season, communications will also promote safe and responsible behaviour by all involved in duck hunting. The REDUCE wounding campaign will also be promoted to improve animal welfare outcomes.

In recognition of the Parliamentary Inquiry and through continuing to improve sustainable outcomes, the GMA will raise hunter awareness of Aboriginal cultural heritage sites and cultural artefacts and arrangements for reporting damage or destruction to these. If duck hunting continues, the GMA will work closely with Traditional Owners over time to develop more substantial educational resources for hunters than is currently available.

3. Consultation

On 12 December 2023, the GMA provided key stakeholders with the EAWS summary report. On 19 December 2023, the GMA provided the same stakeholders with the IHM output report, the Victorian game duck abundance 2023 preliminary report and the GMA's summary Considerations document. These documents were made available to the public on the GMA website.

The following stakeholders were invited to provide any additional information or data they considered relevant to decision-making:

- Animals Australia
- BirdLife Australia
- Coalition Against Duck Shooting
- Field and Game Australia
- Regional Victorians Opposed to Duck Shooting
- RSPCA
- Shooting Sports Council of Victoria
- Sporting Shooters' Association of Australia (Vic)
- Victorian Duck Hunters Association
- Wildlife Victoria

Eight submissions (seven solicited, one unsolicited) were received and considered. Stakeholders provided their interpretation of the data and recommendations for the season. Additional information on relevant conditions was limited. Those groups that support duck hunting recommended a full or extended season. Those who oppose duck hunting recommended to cancel the season, and duck hunting generally. Several issues outside the scope of the matter under consideration were also raised.

A high-level summary of stakeholders' positions regarding possible hunting arrangements for the 2024 duck season is included below. A more detailed summary is included at Attachment 3 and the full submissions are included at Attachment 4. While not making a formal submission, the RSPCA did provide the GMA with a copy of its submission to the Parliamentary inquiry into Victoria's native bird hunting arrangements. A copy of this is also included.

Organisation	Position
Animals Australia	Implement the Select Committee recommendation and cancel duck hunting including the 2024 season
BirdLife Australia	No submission received
Coalition Against Duck Shooting	Cancel the 2024 duck season and implement the ban on duck hunting as per the Parliamentary Inquiry report
*Duck and Quail Hunting Australia	Full 12-week season commencing at 7am on the traditional third Saturday in March, all eight game species to be hunted throughout the season, a 10-bird daily bag limit, including two Blue-winged Shoveler as per the regulations, plus an additional five game ducks per day
Field and Game Australia	Supports the interim harvest model, prefers a traditional Saturday opening, return to the prescribed start times for each day of hunting

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Regional Victorians Opposed to Duck Shooting	The GMA should, in line with its functions and obligations under the GMA Act, recommend closure of the 2024 duck season until all of the adverse impacts outlined in its submission are removed
RSPCA	No submission received
Shooting Sports Council of Victoria	No submission received
Sporting Shooters' Association of Australia (Vic)	Supports the interim harvest model recommendation of nine ducks per day and a full-length season
Victorian Duck Hunters' Association	Full prescribed season, 10 bird daily bag limit including two Blue-winged Shoveler, season to commence on the third Saturday in March or the Friday before, opening two days to have a bag limit of 15 birds and one additional Wood Duck per day for the whole of the season, first three days of the season to start hunting at 7:30am and close at 7:30pm.
Wildlife Victoria	Prohibit duck hunting on public and private land

*Unsolicited submission

4. Attachments

- Attachment 1 Considerations for the 2024 duck season
- Attachment 2 Interim Harvest Model output report – Relationships among duck population indices and abiotic drivers to guide annual duck harvest management. Professor Marcel Klaassen, Deakin University
- Attachment 3 Summary of stakeholder submissions on the 2024 duck season arrangements
- Attachment 4 Stakeholder submissions on the 2024 duck season arrangements



Using duck proxies and surface water to inform hunting arrangements for 2024

Compiled by Marcel Klaassen

Surface water data:

Roxane Francis & Richard Kingsford
University of New South Wales

Victorian Duck Season Priority Waterbird Counts:

Kasey Stamation
Arthur Rylah Institute for Environmental Research

Eastern Australian Waterbird Survey data:

John Porter & Richard Kingsford
University of New South Wales

15 December 2023

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Important abbreviations used in this document

Counts:

- PGC: priority game counts.
- VicC: Eastern Australian Waterbird Survey counts for Victoria.
- NSW: Eastern Australian Waterbird Survey counts for NSW.

Explanatory variables:

- VIC: average water surface area (in %) across Victoria (VIC) over the past 12 months.
- MDB: water surface area (in %) across Murray-Darling Basin over the past 12 months.
- SEDB: water surface area (in %) across SE Australia south of the Murray-Darling Basin over the past 12 months.
- LEB: water surface area (in %) across Lake Eyre Basin over the past 12 months.
- VIC2: average water surface area (in %) across Victoria (VIC) over 13 to 36 months ago.
- MDB2: water surface area (in %) across Murray-Darling Basin over 13 to 36 months ago.
- SEDB2: water surface area (in %) across SE Australia south of the Murray-Darling Basin over 13 to 36 months ago.
- LEB2: water surface area (in %) across Lake Eyre Basin over 13 to 36 months ago.

Indices:

- iPGC: index of game counts based on water surface area model.
- iVicC: index of aerial survey for Victoria based on water surface area model.
- iNSW: index of aerial survey for NSW based on water surface area model.
- tfVicC: index of aerial survey for Victoria based on actual count data.
- tfNSW: index of aerial survey for NSW based on actual count data.
- aPS: aggregated point system calculated using all five, duck population indices.

1 Introduction

Based on literature, practices elsewhere, and earlier recommendations, duck harvest management for Victoria should contain indices that inform on (i) breeding conditions in Victoria, (ii) breeding conditions throughout SE Australia, (iii) current or recent duck population size in Victoria, and (iv) duck population size throughout SE Australia.

In the protocol outlined in *Relationships among duck population indices and abiotic drivers to guide annual duck harvest management* by [Klaassen and Kingsford \(2021\)](#) we proposed to calculate five indices reflecting the above four elements i-iv. Three of these indices, reflecting breeding condition elements i and ii, use availability of water in the landscape (LANDSAT satellite imagery) across up to 4 regions in SE Australia and up to three years back in time. The models underlying these three indices are updated annually, making use of the latest LANDSAT and game count data. The three indices used in the models are based on the *Victorian Duck Season Priority Waterbird Counts* (from here on Priority Game Counts or PGC), the *Eastern Australian Waterbird Survey counts for Victoria* (Victoria aerial counts or VicC) and the *Eastern Australian Waterbird Survey counts for NSW* (NSW aerial counts or NSW C).

While the first three indices are based on the availability of water in the landscape in SE Australia over the past three years, the two remaining indices are directly calculated from the 2023 VicC and NSW C data. These indices are used in setting bag limits rather than to modify season length, since alterations in season length have shown to have limited effect (see [Klaassen and Kingsford \(2021\)](#)).

After starting with presenting the water and count data in section 2, the updated models for the first three indices are presented in section 3. Next, in section 4, we present all five indices and compare these with actual hunting regulation data over the years 1991 to 2021 and briefly evaluate their use in advising on future annual hunting arrangements.

Finally, in section 5, a proposed hunting arrangement for 2024 is presented, which suggests to implement a bag limit of nine ducks per day.

2 The data

2.1 Water surface area across SE Australia

The monthly maximum water surface area in the landscape calculated from LANDSAT imagery using the [DEA Sandbox](#) tool were kindly obtained and shared by Roxane Francis and Richard Kingsford (UNSW) for the following regions (Figure 1):

- Lake Eyre Basin catchment (LEB)
- Murray-Darling Basin catchment (MDB)
- SE Australia south of the MDB (SEDB)
- Victoria (VIC)

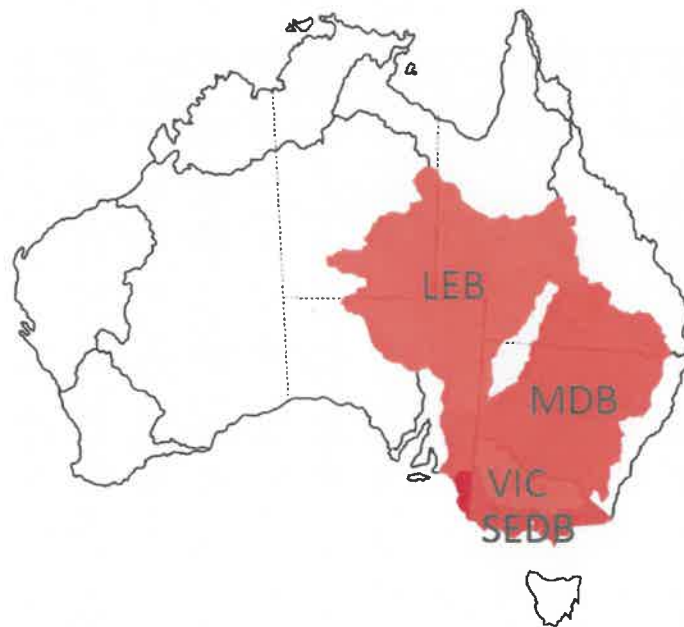


Figure 1: The regions across which percentage of surface water was extracted from satellite imagery.

In Figure 2, the water surface area (in %) across Victoria (VIC), Murray-Darling Basin (MDB), SE Australia south of the MDB (SEDB) and Lake Eyre Basin (LEB) is depicted. The monthly values are plotted in blue with the last three years of data plotted in red. It is these last three years of data on which the graph also zooms in, since it is this period of water availability in the landscape that is used in making predictions on duck numbers and calculation of three of the five indices. The right-aligned, 12-month rolling average for the water surface areas (i.e., annual trends in water surface area corrected for monthly variations) are depicted in green.

The interim harvest model is a statistical model. This means that duck count and water surface data over the past three decades is used to make models which are then used to make predictions on waterfowl numbers using the latest water data. Such use of models to make predictions is only allowed when the input values are not outside the range of values used to make the predictive model. While we have experienced an unprecedented third La Niña year in a row, Figure 2 shows that the current amounts of water in the landscape across most of the four regions are high but largely fall within the previously observed ranges. This supports the modelling approach taken.

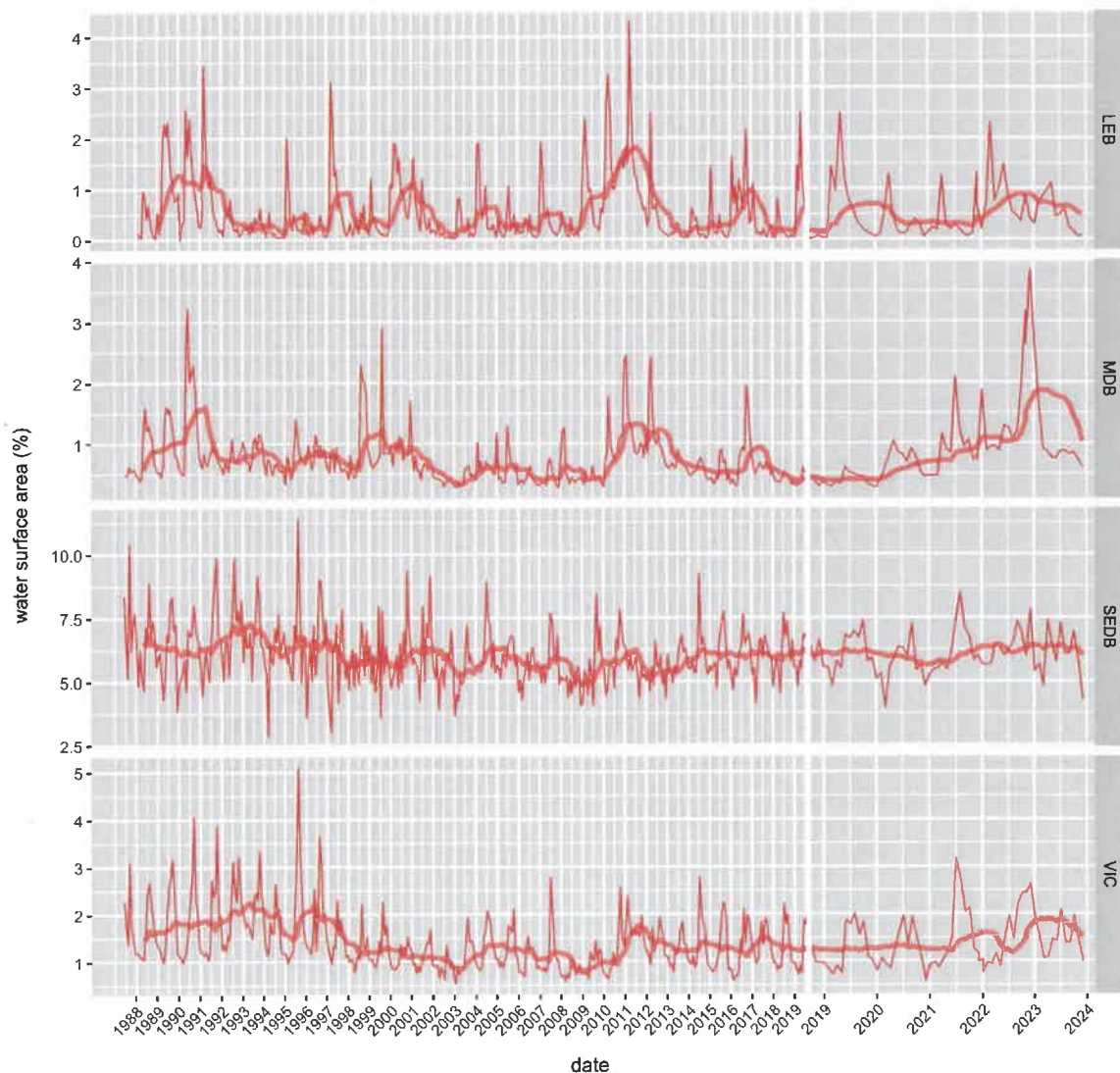


Figure 2: Percentage water surface area over time for four Australian regions considered to be of importance to duck numbers in Victoria.

2.2 Waterfowl across SE Australia

As mentioned earlier, the analyses presented here rely both on water surface data presented above and on three sets of waterbird counts of which we used counted game ducks exclusively:

- The Victorian Duck Season Priority Waterbird Counts (PGC; e.g. [2023 report](#)), the latest available information of which was made available to the analyses presented here by Kasey Stamation (Arthur Rylah Institute for Environmental Research). These counts mostly take place in February, i.e., a month before the duck hunting season.
- the Victorian aerial counts (VicC) were extracted from the Eastern Australian Waterbird Survey data (EAWS; an annual aerial survey taking place in October of each year since 1983 as described in [Kingsford, R. T., J. L. Porter, K. J. Brandis, and S. Ryall. 2020. Aerial surveys of waterbirds in Australia. Scientific Data 7:1-6.](#)), with the latest 2023 update made available for the analyses by John Porter and Richard Kingsford (UNSW). From this data set we used bands 1-3 (Figure 3) to represent Victoria (and the SE of SA)
- The NSW aerial counts (NSWC) were extracted from the same EAWS data set as bands 4-6 (Figure 3) covering NSW and southern Queensland as well as the E of SA bordering NSW.



Figure 3: EAWS survey bands across the east of Australia.

In Figure 4 below, an overview of the count data used in the modelling and starting 1991 is presented. Also presented in this figure are the bag limits set over the period 1991-2022.

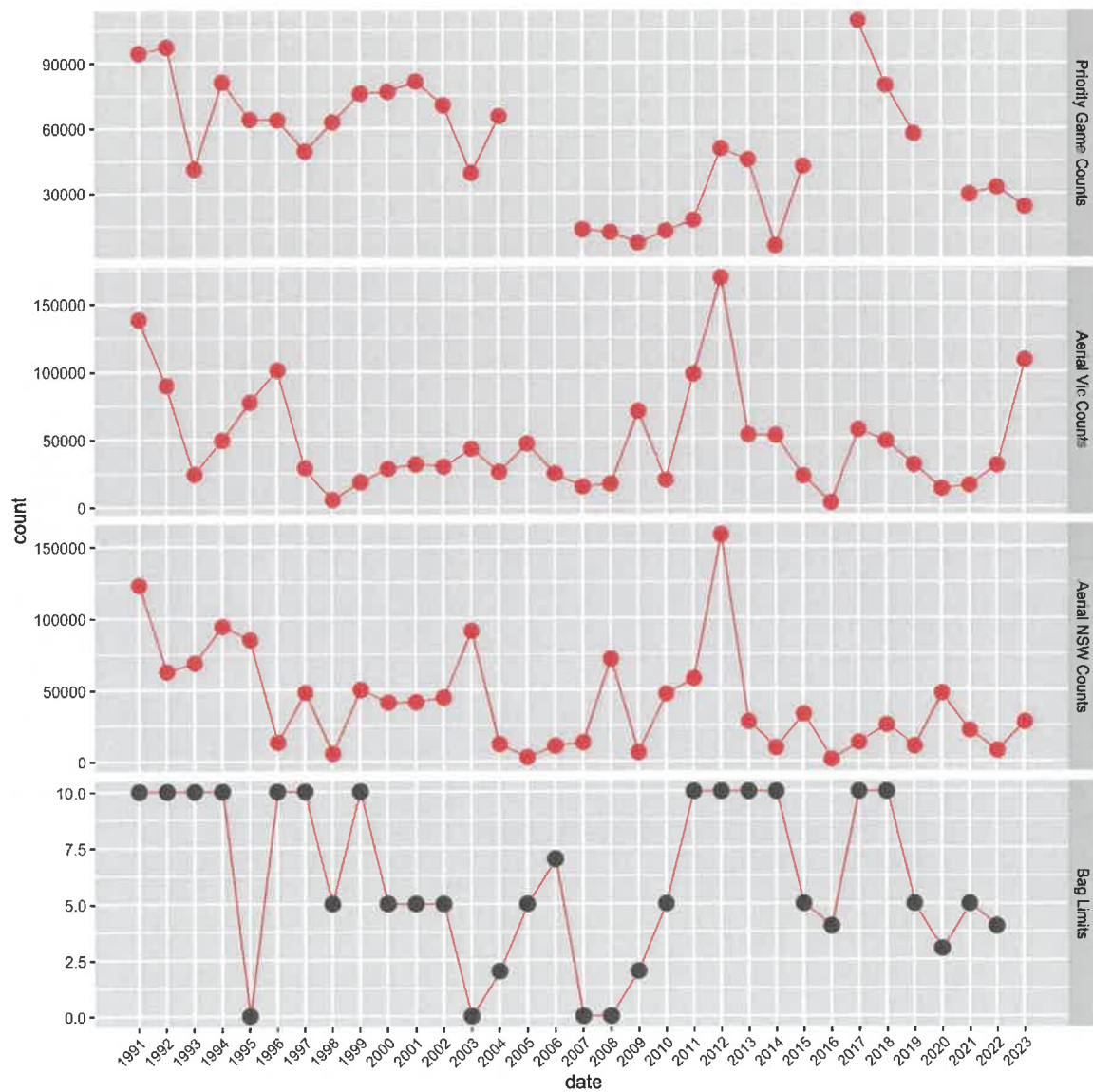


Figure 4: Overview of all the count data used in the modelling as well as the bag limits that have been imposed (note that there are some years without data for the Priority Game Counts and that for bag limits the year prior to the season is used).

3 The models and thresholds

3.1 Predictive models for priority game counts

We used linear modelling to conduct a regression across all priority game count data across 44 priority wetlands for the years in which water surface data was also available for all four regions. Water surface area was time-shifted by 4 months. This was done to allow already predicting in December what the expected duck numbers are going to be in March the following year, from which sensible hunting arrangements can next be gauged.

We ran models using the average water surface area over the preceding 12 months for all four regions (designated by the respective region codes LEB, MDB, SEDB and VIC) as explanatory variables. For all four regions, we also used the average water surface area over the period 13-36 months (i.e., 2 years of water data) prior to the “decision” point in December (designated by LEB2, MDB2, SEDB2 and VIC2). All possible combinations of these 8 explanatory *water surface* variables were tested.

We first present a correlation chart (Figure 5) for all variables used in the models, including their Pearson correlation coefficients. This correlation chart not only depicts the direct, one-on-one relationships between counts and the various water-surface-area explanatory variables, but also between each of the explanatory variables. It, for instance, highlights that water surface area in VIC is highly correlated with water surface area in SEDB. Thus, a model that for instance would include SEDB water data only, indirectly also includes a lot of “water information” from the whole of VIC. Next, in Table 1, we present the 25 best models ranked by their deltaAIC value, which is a measure of how good a model fits the data. Models with a deltaAIC between 0 and 2 are considered models with substantial statistical support and models with a score between 2 and 7 to have moderate statistical support only.

In Table 1, the use of a red font indicates models where all explanatory variables have a $P < 0.05$. The orange columns indicate variables where we a priori expected a possible effect; for the Victorian priority game counts we would possibly expect to see effects of water surface area over the past three years in VIC, SEDB and the MDB but less so for LEB given that it is quite distant to Victoria.

We ultimately selected a model as the best fitting model when it:

1. was high ranking (i.e., had a low deltaAIC),
2. had significant and preferably positive parameter estimates for all its parameters (not considering the intercept),
3. had a high adjR2 or R-squared, indicating that the model explains a large percentage of the variation in the data.

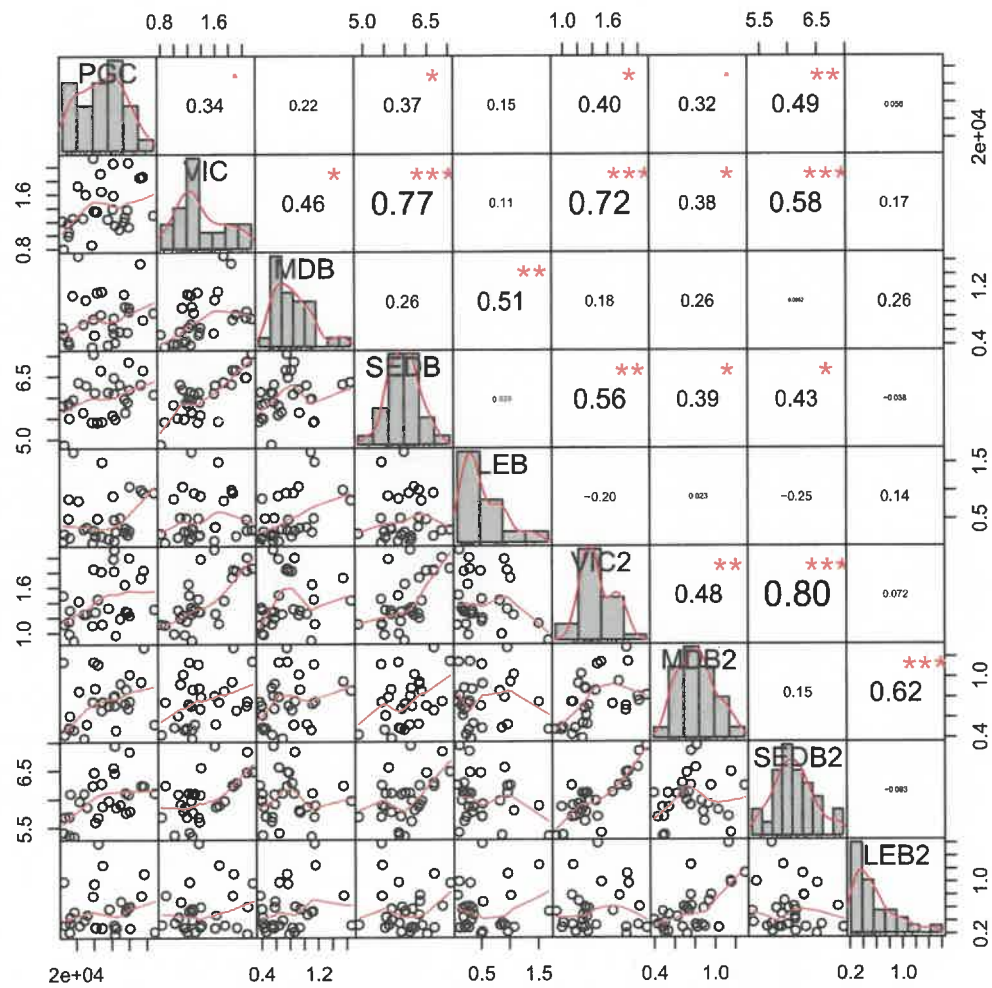


Figure 5: Correlation chart depicting the correlations between the annual game counts (PGC) and all eight explanatory water surface variables used in the models. Frequency distributions of the variables are depicted on the diagonal and the Pearson correlation coefficients presented in the top right half of the matrix. Stars indicate significance levels (* P<0.05, ** P<0.01, *** P<0.001).

Table 1: Top 25 models predicting game counts in Victorian priority wetlands ranked starting with best model (top row) first. The first nine columns present the estimated intercept and slopes for all eight explanatory water surface variables. NA indicates the variable was absent from the model. The three final columns contain quality indicators of each model: R squared, delta AIC and whether all model slopes were significantly different from zero (in which case the row values are depicted in red).

(Intercept)	LEB	LEB2	MDB	MDB2	SEDB	SEDB2	VIC	VIC2	adjR^2	delta	AllSignif
-207806	19628	NA	NA	NA	NA	41326	NA	NA	0.318	0.00	FALSE
-165924	NA	NA	NA	NA	NA	36130	NA	NA	0.240	0.42	TRUE
-211467	18603	NA	NA	28253	NA	38420	NA	NA	0.370	0.65	FALSE
-172206	NA	NA	NA	30341	NA	33301	NA	NA	0.300	0.74	FALSE
-180366	NA	NA	18937	NA	NA	36048	NA	NA	0.287	1.29	FALSE
-198498	NA	NA	NA	NA	11690	29907	NA	NA	0.272	1.91	FALSE
-229879	18144	NA	NA	NA	9058	36111	NA	NA	0.336	2.16	FALSE
-259922	NA	NA	NA	46619	NA	53166	NA	-31283	0.330	2.45	FALSE
-182008	NA	NA	14289	25053	NA	33732	NA	NA	0.325	2.64	FALSE
-206638	16078	NA	8401	NA	NA	40349	NA	NA	0.325	2.66	FALSE
-291452	18045	NA	NA	43376	NA	56647	NA	-28945	0.395	2.70	FALSE
-175291	NA	8715	NA	NA	NA	36837	NA	NA	0.251	2.72	FALSE
-212755	19021	5809	NA	NA	NA	41636	NA	NA	0.323	2.75	FALSE
-152843	NA	NA	NA	NA	NA	32272	7221	NA	0.246	2.92	FALSE
-212008	20049	NA	NA	NA	NA	42411	-1823	NA	0.318	2.93	FALSE
-202307	19629	NA	NA	NA	NA	39932	NA	2040	0.318	2.93	FALSE
-160489	NA	NA	NA	NA	NA	34752	NA	2016	0.241	3.12	FALSE
2243	NA	NA	NA	NA	NA	NA	NA	34800	0.162	3.28	TRUE
-189756	NA	NA	NA	25799	6636	30192	NA	NA	0.309	3.32	FALSE
-239441	21158	NA	NA	33336	NA	44955	-11850	NA	0.381	3.34	FALSE
-203148	19408	-11365	NA	38774	NA	36730	NA	NA	0.380	3.39	FALSE
-165190	NA	-7958	NA	37771	NA	31963	NA	NA	0.305	3.47	FALSE
-201057	NA	NA	15810	NA	8282	31653	NA	NA	0.301	3.64	FALSE
-175382	NA	NA	NA	31097	NA	34121	-1667	NA	0.301	3.67	FALSE
-221039	18034	NA	NA	25529	4073	36355	NA	NA	0.373	3.72	FALSE

3.2 Predicted versus observed PGC and threshold calculation

Based on the three criteria listed above we discarded model 1 (since not all parameter estimates were significantly different from zero) and selected model 2 as the preferred model. The critical statistics for this model are presented below, along with a plot of the predicted versus the observed Victorian Game counts. In this graph (Figure 6), the symbol colour reflects hunting bag limits for the season (not considering potential separate limitations for individual species and special restrictions during opening weekend). The red line depicts *observed=predicted*, while the blue line is the linear regression relationship with grey shading reflecting the 95% confidence interval of this line. The black horizontal line is the threshold for the dependent variable, reflecting the lower limit above which unlimited seasons were called. The black square symbol resembles data for 2023. Since hunting bag limits were based on this methodology starting with the 2022 hunting season, the hunting bag limits for 2022 and 2023 were discarded in calculating the threshold.

Game counts in 2023 turned out lower than average and came out at 23705 or on the 24.1 percentile of all counts.

As expected, since adding a single year to the existing data set of 28 years is unlikely to change the outcome by much, the current model is very similar to the models calculated in 2021 and 2022 (as reported in [Using duck proxies and surface water to inform hunting arrangements \(Klaassen & Kingsford 2021\)](#) and [Using duck proxies and surface water to inform hunting arrangements for 2023 \(Klaassen 2022\)](#)) with a strong effect of SEDB2. The weak effect of MDB present in previous years, was no longer detectable with the addition of the 2023 data. The threshold value for the Victorian Game counts increased from 74,700 in 2021 and 77,000 in 2022 to 84,800 in 2023. This threshold value was calculated by taking the highest predicted PGC amongst years in which hunting restrictions were in place (i.e., the bag limit was less than 10; all non-purple symbols in Figure 6).

Observations	29
Dependent variable	PGC
Type	OLS linear regression

F(1,27)	8.55
R ²	0.24
Adj. R ²	0.21

	Est.	S.E.	t val.	p
(Intercept)	-165924.03	74580.43	-2.22	0.03
SEDB2	36130.28	12358.08	2.92	0.01

Standard errors: OLS

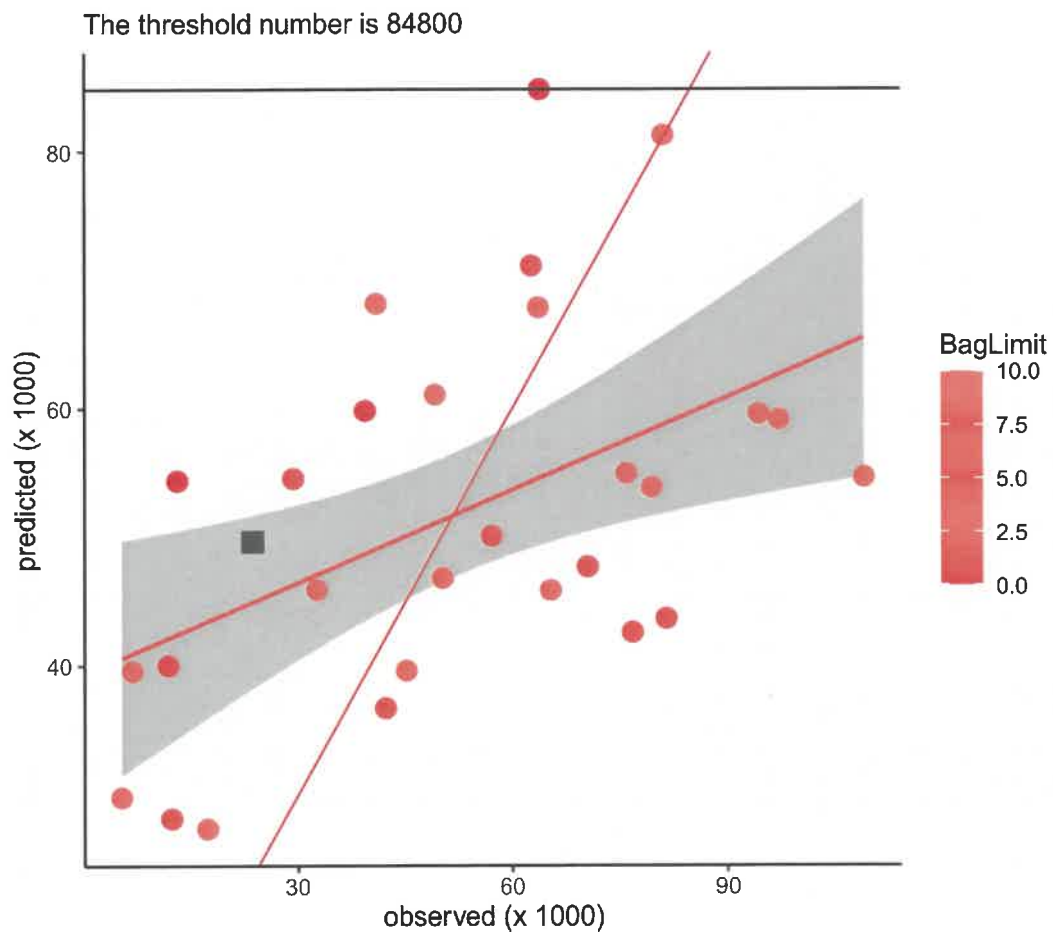


Figure 6: Predicted versus observed Victorian Game counts, where symbol colour corresponds with the season's hunting bag limit, and black square is the data for 2023. The red line is observed=predicted and the blue line is the linear regression relationship (with 95 percent confidence interval). The black horizontal line is the threshold or lower limit above which unlimited seasons were called.

3.3 Predictive models for aerial Victorian counts

We ran models analogous to what we presented above for the “Water surface areas and game counts in priority wetlands”. The selection of the preferred model also followed the same selection criteria. We again present a correlation chart (Figure 7) for all variables used in the models, including their Pearson correlation coefficients as well as a table (Table 2) presenting the 25 best models, starting with the best model ($\Delta AIC=0$).

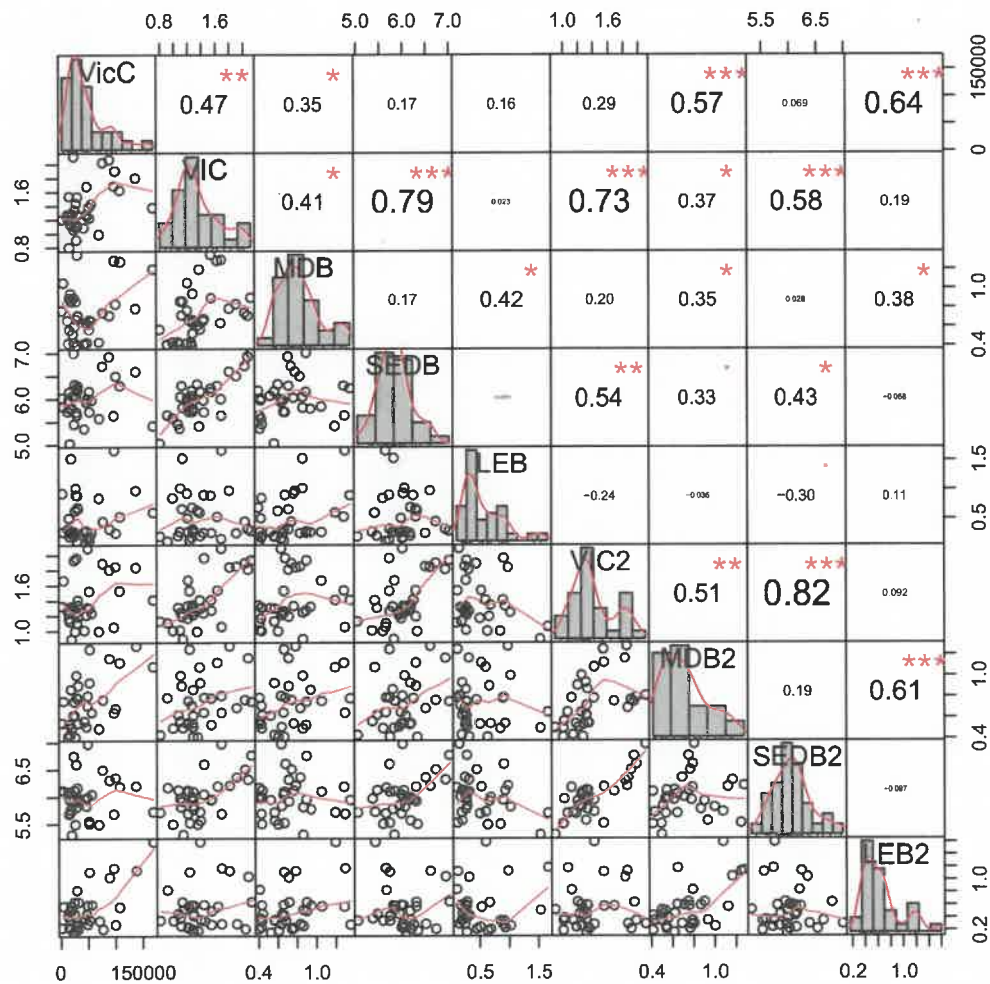


Figure 7: Correlation chart depicting the correlations between the annual EAWScouts for Victoria (VicC) and all eight explanatory water surface variables used in the models, with frequency distributions of the variables depicted on the diagonal and the Pearson correlation coefficients presented in the top right half of the matrix.

Table 2: Top 25 models predicting annual EAWS counts for Victoria ranked starting with best model (top row) first. The first nine columns present the estimated intercept and slopes for all eight explanatory water surface variables. NA indicates the variable was absent from the model. The three final columns contain quality indicators of each model: R squared, delta AIC and whether all model slopes were significantly different from zero (in which case the row values are depicted in red).

(Intercept)	LEB	LEB2	MDB	MDB2	SEDB	SEDB2	VIC	VIC2	adjR^2	delta	AllSignif
209986	NA	NA	NA	99514	-55472	NA	128456	-55644	0.613	0.00	TRUE
-46132	NA	65532	NA	NA	NA	NA	42567	NA	0.535	0.24	TRUE
353610	NA	NA	NA	77302	-53259	-13210	112768	NA	0.595	1.51	TRUE
47861	NA	59535	NA	NA	-20323	NA	65185	NA	0.553	1.79	FALSE
245959	NA	NA	-23097	108847	-62003	NA	144274	-63714	0.629	1.84	FALSE
-53223	NA	55078	NA	26750	NA	NA	37422	NA	0.551	1.92	FALSE
88573	NA	39479	NA	42818	-31580	NA	69478	NA	0.587	2.18	FALSE
28798	NA	62078	NA	NA	NA	-14553	52850	NA	0.547	2.20	FALSE
157086	NA	20667	NA	76127	-44252	NA	108281	-43541	0.625	2.24	FALSE
-50069	8835	64413	NA	NA	NA	NA	42548	NA	0.543	2.47	FALSE
249767	NA	27534	NA	52506	-39022	-25122	93649	NA	0.619	2.77	FALSE
-43559	NA	65250	NA	NA	NA	NA	46837	-5977	0.536	2.96	FALSE
-45652	NA	66080	-2275	NA	NA	NA	43223	NA	0.536	3.02	FALSE
203535	5245	NA	NA	98487	-54883	NA	123209	-51731	0.616	3.05	FALSE
255701	NA	NA	NA	94813	-55192	-9835	125878	-44243	0.615	3.06	FALSE
175151	NA	NA	NA	78945	-51266	NA	88374	NA	0.530	3.42	TRUE
157155	NA	54208	NA	NA	-23843	-18066	81868	NA	0.570	3.49	FALSE
409869	NA	NA	-21419	82937	-59023	-38343	127940	NA	0.609	3.62	FALSE
35198	NA	49356	NA	30833	NA	-17384	48920	NA	0.567	3.72	FALSE
-46965	NA	48318	NA	41218	NA	NA	51393	-23451	0.563	3.99	FALSE
-58856	10739	52470	NA	29943	NA	NA	36785	NA	0.562	4.09	FALSE
43800	8806	58428	NA	NA	-20294	NA	65134	NA	0.560	4.22	FALSE
244065	13124	NA	-32245	109974	-63114	NA	143208	-57118	0.642	4.24	FALSE
86965	11768	36118	NA	46834	-32597	NA	69812	NA	0.600	4.32	FALSE
194448	NA	19621	-27269	86311	-51117	NA	126381	-51935	0.640	4.42	FALSE

3.4 Predicted versus observed VicC and threshold calculation

Based on the criteria set out earlier we selected model 2 as the preferred model (since model 1 had multiple negative parameter estimates) for which we present the critical statistics below, followed by a plot of the predicted versus the observed EAWS counts for Victoria (Figure 8).

The EAWS count for Victoria in 2023 was the third highest since 1991, amounting to 108329, which was exactly at the 93.9 percentile of all counts used in the analyses.

Also here, adding a single year to the existing data set of 32 years did not result in a major change to this model compared to the two reported in previous years (Klaassen & Kingsford 2021 and Klaassen 2022). The explanatory variables remained unchanged (LEB2 and VIC) and the threshold value is similar (54,100 compared to 50,800 and 50,300 in previous years).

Observations	33
Dependent variable	VicC
Type	OLS linear regression

F(2,30)	17.28
R ²	0.54
Adj. R ²	0.50

	Est.	S.E.	t val.	p
(Intercept)	-46131.73	21316.22	-2.16	0.04
LEB2	65532.46	14515.87	4.51	0.00
VIC	42566.87	15088.86	2.82	0.01

Standard errors: OLS

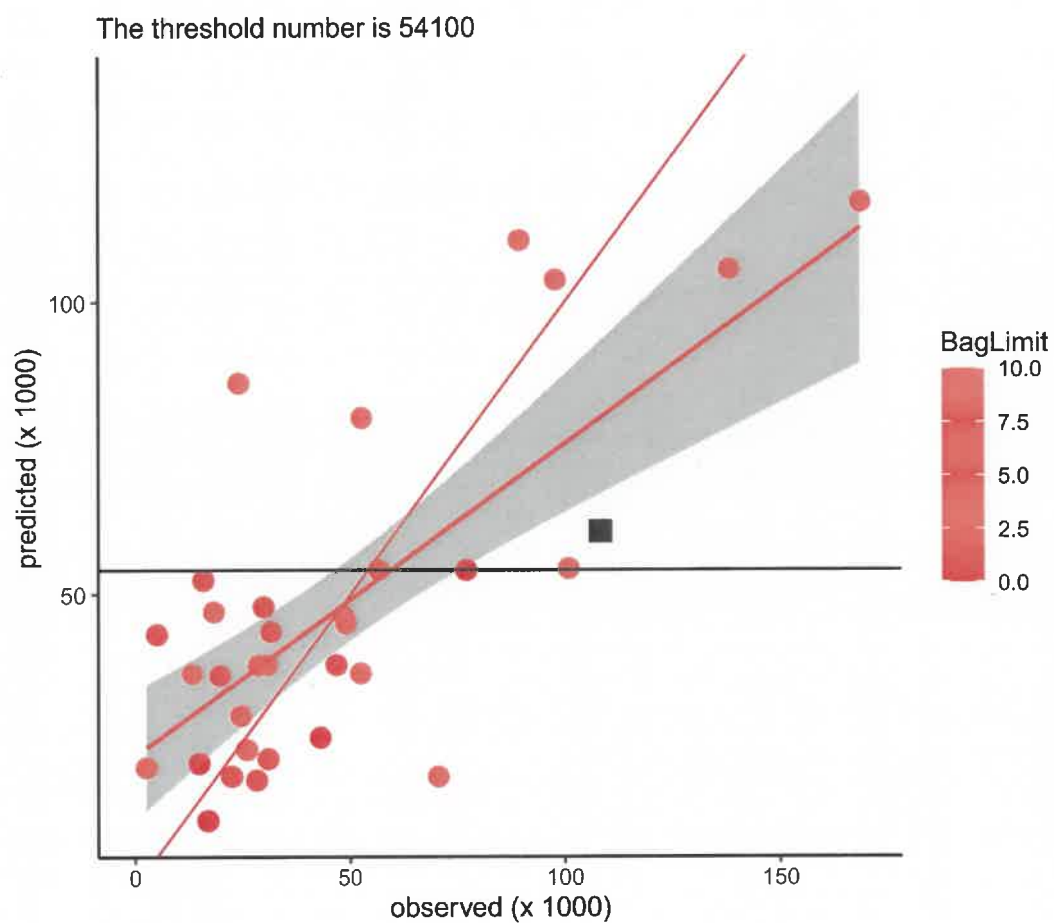


Figure 8: Predicted versus observed EAWS counts for Victoria, where symbol colour corresponds with the season's hunting bag limit, and black square is the data for 2022. The red line is observed equals predicted and the blue line is the linear regression relationship (with 95 percent confidence interval). The black horizontal line is the threshold or lower limit above which unlimited seasons were called.

3.5 Predictive models for aerial NSW counts

We again ran a series of models analogous to the above, differing in that they now predict annual EAWS counts from NSW from water surface areas across the four regions. The selection of the preferred model again followed the same selection criteria presented earlier. We present a correlation chart (Figure 9) for all variables used in the models, including their Pearson correlation coefficients as well as a table (Table 3) presenting the 25 best models.

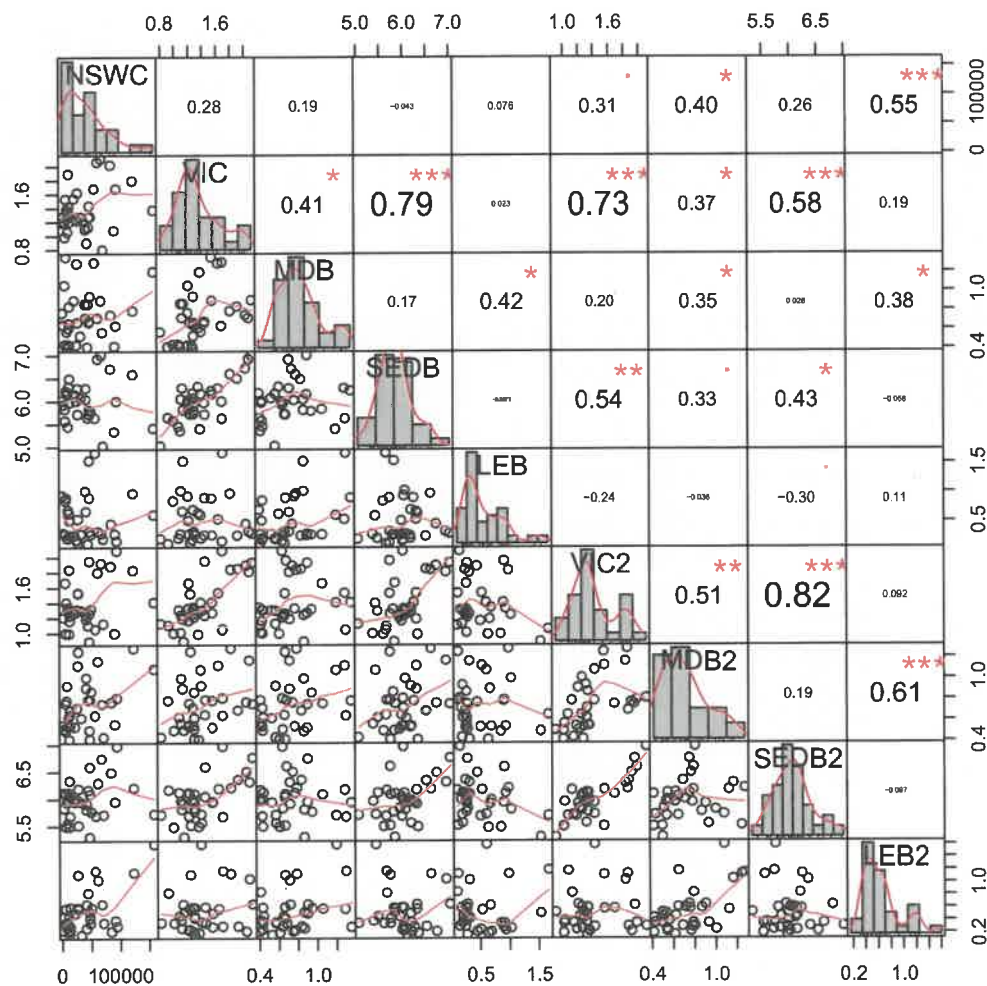


Figure 9: Correlation chart depicting the correlations between the annual EAWS counts for NSW (NSWC) and all eight explanatory water surface variables used in the models, with frequency distributions of the variables depicted on the diagonal and the Pearson correlation coefficients presented in the top right half of the matrix.

Table 3: Top 25 models predicting annual EAWScouts for NSW ranked starting with best model (top row) first. The first nine columns present the estimated intercept and slopes for all eight explanatory water surface variables. NA indicates the variable was absent from the model. The three final columns contain quality indicators of each model: R squared, delta AIC and whether all model slopes were significantly different from zero (in which case the row values are depicted in red).

(Intercept)	LEB	LEB2	MDB	MDB2	SEDB	SEDB2	VIC	VIC2	adjR^2	delta	AllSignif
-181652.8	NA	62559	NA	NA	NA	31594	NA	NA	0.398	0.00	TRUE
-138602.6	NA	62067	NA	NA	-14535	39006	NA	NA	0.422	1.44	FALSE
-30862.7	NA	56635	NA	NA	NA	NA	NA	30080	0.365	1.73	FALSE
-207071.1	11013	61518	NA	NA	NA	34978	NA	NA	0.410	2.10	FALSE
9567.4	NA	59219	NA	NA	NA	NA	NA	NA	0.299	2.43	TRUE
-179876.0	NA	64370	-6051	NA	NA	31880	NA	NA	0.399	2.70	FALSE
-188663.3	NA	63417	NA	NA	NA	33497	-3523	NA	0.398	2.76	FALSE
-188254.1	NA	62914	NA	NA	NA	33170	NA	-2184	0.398	2.79	FALSE
-182465.3	NA	63341	NA	-1762	NA	31877	NA	NA	0.398	2.79	FALSE
59492.4	NA	53878	NA	NA	-17987	NA	NA	43797	0.397	2.84	FALSE
159854.4	NA	44233	NA	NA	-38066	NA	62511	NA	0.397	2.85	FALSE
-13848.0	NA	52698	NA	NA	-32473	28713	35997	NA	0.446	3.05	FALSE
-164313.7	13494	60728	NA	NA	-16369	44088	NA	NA	0.440	3.38	FALSE
-16198.2	NA	55467	NA	NA	NA	NA	20146	NA	0.330	3.55	FALSE
254535.3	NA	NA	NA	57848	-61015	NA	79915	NA	0.379	3.78	TRUE
-37817.4	8072	55396	NA	NA	NA	NA	NA	32561	0.372	4.17	FALSE
-126529.0	NA	56563	NA	12241	-16705	38146	NA	NA	0.425	4.27	FALSE
-30032.6	NA	63148	NA	-16395	NA	NA	NA	35697	0.370	4.27	FALSE
-93546.7	NA	59923	NA	NA	-16721	30912	NA	12763	0.425	4.27	FALSE
-26943.0	NA	59485	-10109	NA	NA	NA	NA	31525	0.370	4.30	FALSE
136234.4	NA	46290	NA	NA	-35557	NA	39775	27916	0.424	4.35	FALSE
-138717.3	NA	62459	-1291	NA	-14368	38982	NA	NA	0.422	4.44	FALSE
-30041.9	NA	56984	NA	NA	NA	NA	-2835	32167	0.366	4.51	FALSE
-213622.6	16004	66106	-16914	NA	NA	37311	NA	NA	0.420	4.53	FALSE
772.1	NA	51877	NA	17209	NA	NA	NA	NA	0.307	4.65	FALSE

3.6 Predicted versus observed NSW and threshold calculation

Based on the criteria set out earlier we selected model 1 as the preferred model for which we present the critical statistics below, followed by a plot of the predicted versus the observed EAWS counts for Victoria (Figure 10).

The EAWS count for NSW in 2023 turned out higher than last year's and was close to average at 27453 or at the 48.5 percentile of all counts.

Thus, also in this case, adding an additional year to the existing data set of 32 years did not result in a change of model compared to the one reported last year in [Klaassen 2022](#), with only a moderate change in threshold from 54,900 in 2021 and 67,000 in 2022 to 66,000 this year.

Observations	33
Dependent variable	NSWC
Type	OLS linear regression

F(2,30)	9.91
R ²	0.40
Adj. R ²	0.36

	Est.	S.E.	t val.	p
(Intercept)	-181652.76	86613.95	-2.10	0.04
LEB2	62559.49	15424.72	4.06	0.00
SEDB2	31594.09	14219.53	2.22	0.03

Standard errors: OLS

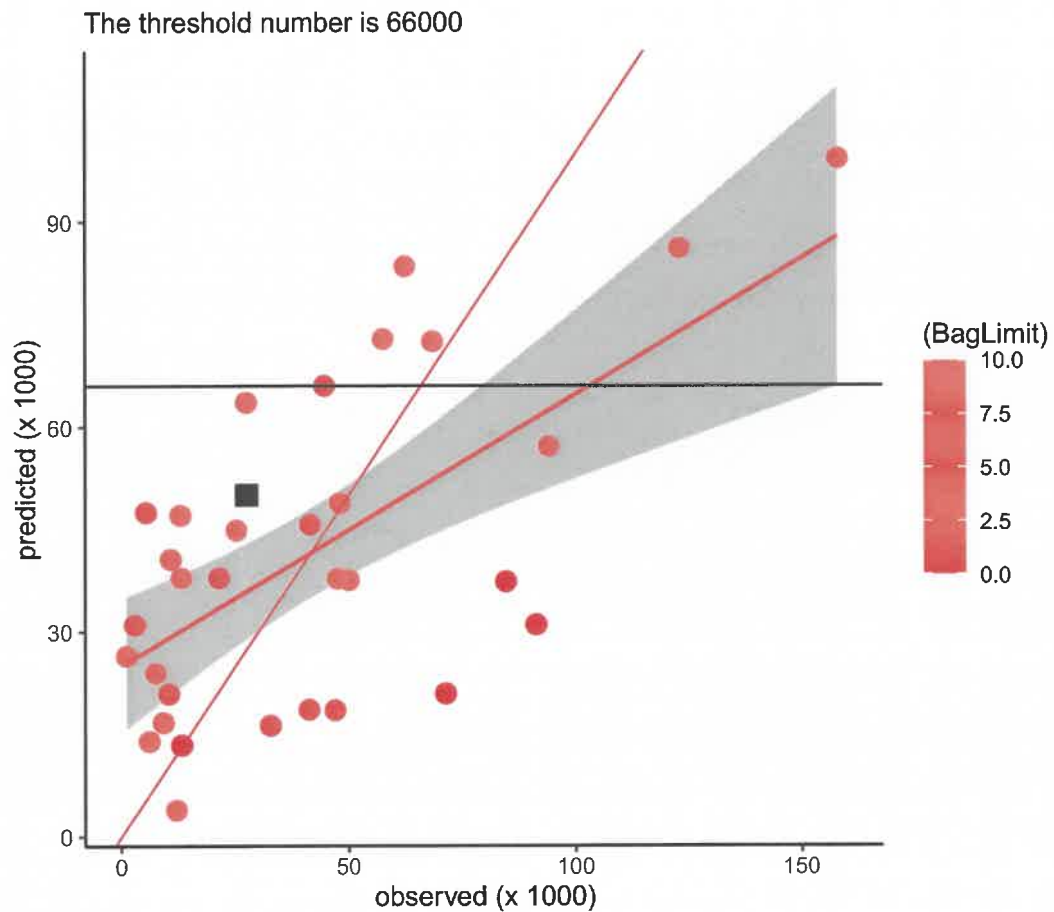


Figure 10: Predicted versus observed EAWS counts for NSW, where symbol colour corresponds with the season's hunting bag limit, and black square is the data for 2022. The red line is observed equals predicted and the blue line is the linear regression relationship (with 95 percent confidence interval). The black horizontal line is the threshold or lower limit above which unlimited seasons were called.

4 From predictive models to duck population indices

4.1 Summary of predictive models

The following preferred models were selected (with R squared in brackets):

PGC ~ SEDB2 (0.24)

VicC ~ LEB2 + VIC (0.54)

NSWC ~ LEB2 + SEDB2 (0.40)

It should be noted that in all models, long-term patterns in water availability (i.e., water in the landscape 2-3 years prior to the counts) appear crucial. Indeed, in the case of NSW, water in the landscape 12-36 months prior to the counts appeared to be solely responsible for the number of birds counted.

Moreover, it should be noted that in all cases the birds counted not only depend on the local availability of habitat, but also on conditions elsewhere in SE Australia. Indeed, for PGC the water availability across Victoria as a whole was not in the top model. Similarly, for NSW water surface area in NSW was also not in the preferred model. Also here, it should again be stressed that water surface areas in the different regions tended to be (highly) correlated (cf. Figure 3, 6 and 8).

Finally, given the nomadic nature of some duck species and populations, local duck numbers may rely on water availability in distant regions, as exemplified by the effect of LEB2 on both VicC and NSW.

4.2 Calculation of the indices

Using the preferred predictive models as well as the two aerial game duck counts themselves, following the protocol outlined in *Relationships among duck population indices and abiotic drivers to guide annual duck harvest management* by [Klaassen and Kingsford \(2021\)](#) we calculated indices that broadly inform on the current population status of ducks in SE Australia and Victoria in particular.

Threshold values for game counts in Victoria and aerial surveys for Victoria and NSW were selected above which no years in which restrictions on the prescribed bag limit of 10 were imposed (and, conversely, below which some years, but not all, had bag limit restrictions imposed; see figures 5, 8 and 10 in section 3.2, 3.4 and 3.6, respectively).

The five duck population indices are:

- **iPGC**: index of game counts limited to 44 priority wetlands using the predictive model from section 3.2 divided by the game count threshold of 84800
- **iVicC**: index of aerial survey for Victoria using the predictive model from section 3.4 divided by the threshold for these counts of 54100
- **iNSWC**: index of aerial survey for NSW using the predictive model from section 3.6 divided by the threshold for these counts of 66000

- **tfVicC**: index of aerial survey for Victoria using actual counts divided by the threshold for these counts of 54100
- **tfNSWC**: index of aerial survey for NSW using actual counts divided by the threshold for these counts of 66000

Index values higher than 1 indicate a good to excellent population status of ducks, while values lower than 1 indicate a poor to good population status.

4.3 Past performance of the indices

Below, in Figure 11, boxplots are presented for the five duck-population indices, as well as the median of these five indices. For all six of these, three box plots are drawn, one for hunting seasons in which the prescribed bag limit was not reduced from 10 (bag limit = 10, blue), one for cancelled hunting season (bag limit = 0, red) and one for hunting seasons where the bag limit was reduced from the prescribed limit of 10 (bag limit = 2-7, green).

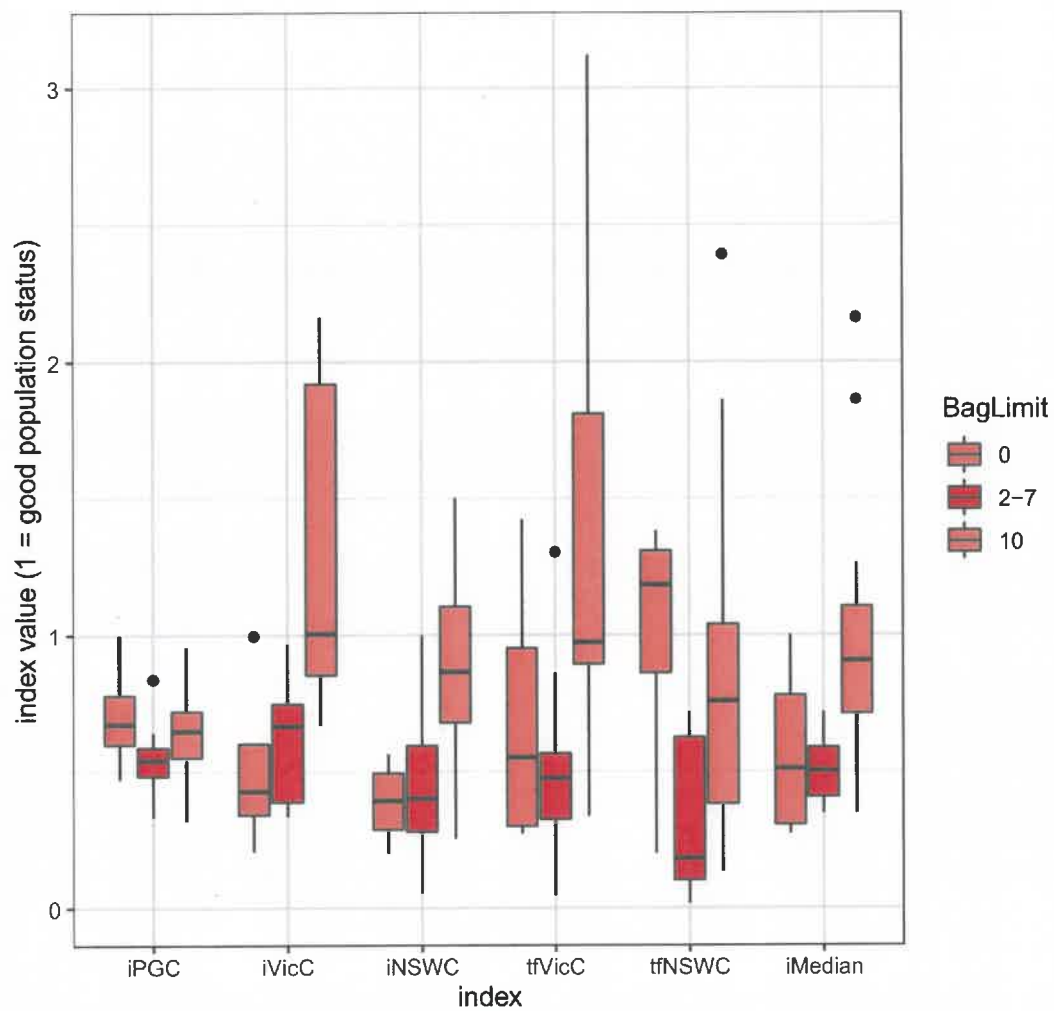


Figure 11: Boxplots of the five duck-population indices and their median separated for years without hunting (bag limit=0), where bag limits were not reduced from 10 and reduced bag limit levels. Boxplots depict minimum, 25 percentile, median, 75 percentile and maximum values as well as outliers.

Table 4: Overview of the annual bag limits, the five predicted duck population indices, as well as the aggregated point system for the years 1991-2021. Years are ranked by their bag limit.

Year	BagLimit	using water surface			using aerial counts		aPS
		iPGC	iVicC	iNSWC	tfVicC	tfNSWC	
2007	0	0.64	0.39		0.27		1
2008	0	0.47	0.21		0.31	1.08	2
2003	0	0.71	0.47		0.79	1.38	4
1995	0	1.00	1.00		1.43	1.28	5
2004	2	0.54	0.43		0.48		1
2009	2	0.47	0.34		1.30		2
2020	3	0.60	0.67		0.24	0.72	4
2016	4	0.58	0.37		0.05	0.02	1
2022	4	0.54	0.70		0.56		3
2015	5	0.43	0.35		0.41	0.06	0
2010	5	0.33	0.67		0.36	0.71	2
2005	5	0.37	0.70		0.86	0.04	2
2019	5	0.59	0.40		0.57		2
2000	5	0.50	0.33		0.52	0.02	3
1998	5	0.84	0.80		0.09	0.08	3
2021	5	0.64	0.97		0.29		4
2001	5	0.51	0.80		0.58	0.63	3
2002	5	0.56	0.88	1.00	0.55	0.02	6
2006	7	0.55	0.54		0.45	0.11	3
2014	10	0.35	0.67		0.97		3
2018	10	0.64	0.85		0.89		4
1999	10	0.65	0.87		0.34	0.76	4
1997	10	0.72	0.70		0.53	0.73	5
2013	10	0.47	1.48	0.96	0.97		6
2017	10	0.64	1.00		1.05		6
1996	10	0.80	1.00		1.86		6
2011	10	0.32	1.92	1.10	1.81	0.87	7
1993	10	0.80	1.59	1.10	0.44	1.04	7
1994	10	0.96	0.83	0.87	0.91	1.43	8
2012	10	0.55	2.16	1.50	3.12	2.39	9
1992	10	0.70	2.04	1.26	1.65	0.95	9
1991	10	0.70	1.95	1.30	2.55	1.86	9

Next, in Table 4, the five predicted duck population indices for the years 1991-2022 where years are ranked from most (BagLimit = 0) to least (BagLimit = 10) restricted bag limits (values are not considering opening weekend and species-specific regulations; note that for bag limits the year prior to the season is used). The index values are colour coded with dark colours indicating good and light colours indicating poor population status. White indices relate to proxies from Victoria whereas yellow indices relate to proxies from NSW. In the final column an overall duck-population-valuation is presented using an aggregated point system (aPS) based on all five duck population indices in each year. For more detail on the calculation of aPS see section 5.

Finally, in Figure 12, the actual bag limits and the aggregated point system scores as calculated from the five duck population indices for the years 1991-2022 are plotted against each other. The blue line in this graph depicts the major axis relationship.

The average actual bag limit over the years was 6.1562 and the average aPS was 4.375. Although tending to be somewhat lower, the aggregated point system does not deviate much from the actual bag limits between 1991 and 2022, with a clear positive relationship between actual bag limits and aggregated point system over this period.

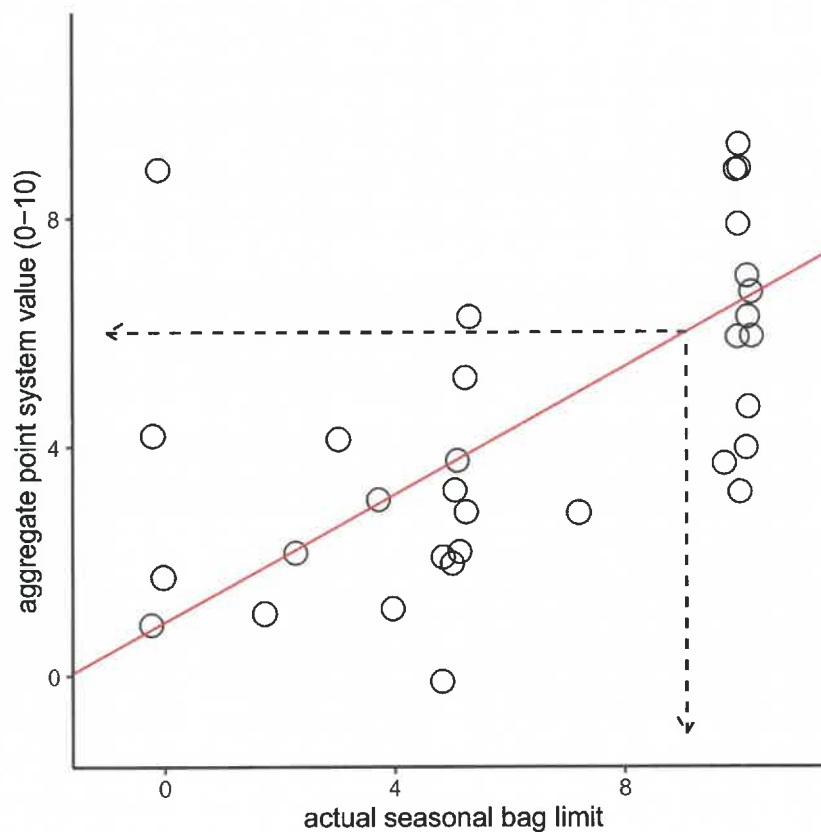


Figure 12: Relationship between the annual bag limit and the aggregated point system value based on the five predicted duck population indices for the years 1991-2022. A small amount of random variation has been added to otherwise overlapping data points to improve data presentation. The blue line is the major axis relationship between the two. Dashed drop lines from this major axis line connects the aPS and proposed bag limit for 2023 (i.e., for the 2024 hunting season).

5 Proposed hunting arrangement for 2024

Although some indices are less prone to error than others, collective use of these five indices should adequately address the four key elements that form part of a decision model. As outlined by [Klaassen and Kingsford \(2021\)](#), we thus propose to include all five indices in a highly straight-forward and transparent manner in guiding decision-making for annual hunting arrangement of which seasonal bag limits form an important part. We propose to do this using the aggregate point system (*aPS*). In this system, each index with a value between 0 and 0.5 attracts 0 points, a value between 0.5 and 0.9 attracts 1 point and a value over 0.9 attracts 2 points. Given 5 indices, the maximum number of points amounts to 10, when all indices are >0.9 . This aggregate point system thus provides a valuation of the overall population status of game ducks in Victoria on a scale from 0-10.

For 2023 the five indices have the following values:

- Using water surface area, the Vic priority game count prediction is: 62338, resulting in an iPGC of: 0.74, worth 1 aPS points.
- Using water surface area, the Vic aerial game count prediction is: 60709, resulting in an iVicC of: 1.12, worth 2 aPS points.
- Using water surface area, the NSW aerial game count prediction is: 50037, resulting in an iNSWC of: 0.76, worth 1 aPS points.
- Aerial game counts Vic amounted to: 108329, and the concomitant tfVicC is: 2, worth 2 aPS points.
- Aerial game counts NSW amounted to: 27453, and the concomitant tfNSWC is: 0.42, worth 0 aPS points.

Finally, using these five indices in the aggregated Point System calculation results in an aPS of: 6. Using the Major Axis relation between aPS and actual seasonal bag limits (blue line in Figure 12) this translates to a daily bag limit of 9 ducks per day recommended for the 2024 duck season.

With a proposed bag limit of 9 being only marginally lower than the prescribed maximum daily bag limit of 10, this may still seem prudent in light of the past three La Niña years in a row. It should be reiterated though that this rainfall follows a period of considerable drought and that not all parts of Australia (e.g., LEB) have similarly profited to the same extent from this rainfall (cf. Figure 2). Next, it should be reiterated that, based on the modelling results, duck numbers seemingly respond to long-term rainfall patterns (section 4.1). Also, duck counts, both on the ground (PGC) and from the air (NSWC), still show moderate to average numbers (cf. Figure 4). Finally, it needs stressing that the protocol followed here results in an integration of five indices in a single aPS score that, had it been used in the past, would have performed well in setting bag limits (c.f. comparisons of aPS scores with actual seasonal bag limits between 1991-2021 in Table 4 and Figure 12).



Eastern Australian Waterbird Aerial Survey - October 2023 Annual Summary Report

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Government of South Australia

Department for Environment
and Water



Energy,
Environment and
Climate Action



2023 Eastern Australian Waterbird Aerial Survey

Executive Summary

- The annual Eastern Australian Waterbird Aerial Survey (EAWS) began in 1983 to monitor annual continental scale changes in the distribution and abundance of waterbirds and their breeding, as well as change in the extent of wetland habitat over time. It tracks trends in more than 50 species of waterbirds.
- In 2023 (41st survey), dry conditions returned to much of eastern Australia (August-October) after record breaking rainfalls and flooding in 2022. Small areas of Queensland NSW are in drought or are drought affected.
- Wetland area decreased considerably from the previous flood year, to well below the long-term average. Some rivers and wetlands in the northern Lake Eyre Basin including the Diamantina and Georgina rivers, retained water in deeper channels and pools after moderate flooding and supported large numbers of waterbirds.
- After record high breeding in 2022, most game species of ducks had abundances well above long term averages, in some cases by an order of magnitude. Total abundance (all species combined) increased markedly from the previous year. Despite this, five out of eight species continued to show significant long-term declines.
- Total breeding decreased by an order of magnitude from the previous year and was below the long-term average.
- Three major indices for waterbirds (total abundance, number of species breeding and wetland area index) continue to show significant declines over time. Long-term trends are more informative for predicting population status than year to year fluctuations.
- Availability of wetland habitat is a major driver of waterbird abundance, breeding and diversity. Reductions in habitat area and persistence due to climate change, river regulation and water extraction have resulted in ongoing long-term declines particularly in the Murray Darling basin. Purchases and timed releases of environmental water to support breeding or habitat retention have offset some the ongoing impacts of regulation.

2023 Eastern Australian Waterbird Aerial Survey Results

1. Global warming continues to influence Australian and global climates. Global sea surface temperatures were the highest on record for their respective months from April to October. Australia's climate has warmed by around 1.48°C since 1910 (BOM 2023^a). There has also been an increase in extreme heat and fire weather events, as well as a trend towards a greater proportion of rainfall from high intensity short duration rainfall events, especially across northern Australia (BOM 2023^a).
2. Drier conditions have returned to much of Australia after record breaking rainfalls and flooding in 2022. For Australia as a whole, October rainfall was 65% below the 1961–1990 average, the fifth-driest October on record (since 1900) and the driest since 2002 (BOM 2023^b). Much of south-eastern Queensland had very low August–October rainfall and large areas of 3-monthly rainfall deficiencies have developed in South Australia and eastern Australia (BOM 2023^b).
3. In 2023 low streamflows were recorded in parts of eastern New South Wales, southern and south-east Queensland, and parts of South Australia and western Victoria (BOM 2023^b). Storage levels remain low in some parts of southern and central Queensland and eastern parts of New South Wales (BOM 2023^b). The combined storages in the Murray–Darling Basin were 92% full. This is down from 101% at the end of October last year. Menindee Lakes storages are around 76% full (Water NSW 2023).
4. A small proportion (9.7%) of Queensland was in drought or drought affected (as of November 2023); in NSW 12.6% of the state was in drought or drought affected (DPI 2023). South Australian and Victorian drought maps are not currently available.
5. Despite two successive La Niña years three major indices for waterbirds (total abundance, number of species breeding and wetland area index) continued to show significant declines over time. If 1983 & 1984 peak years are omitted then 3 of the 4 major indices still showed significant decline (OLS regression at $p=0.05$; variables 4th root or log transformed where appropriate and autocorrelation plots examined for serial autocorrelation; Fig. 1; Table 1). Long-term trends are more informative for predicting population status than year to year fluctuations.
6. Total waterbird abundance in 2023 ($n=579,641$) increased significantly from 2022 to well above the long-term average: the 7th highest in 41 years. Waterbirds were most abundant in Survey Bands 8 and 2 (Figs 2 & 5). Temporary desert wetlands - Lakes Mumbleberry & Torquinnie in Band 8 supported more than 180,000 waterbirds (31% of total abundance). In Band 2, a group of eight wetlands near the southern Coorong held more than 71,500 waterbirds.
7. Breeding species' richness and breeding abundance, decreased considerably compared to the previous year, with abundance falling by an order of magnitude to slightly below the long-term average. Breeding was concentrated in one wetland (73% of total) in Survey Band 9 (Fig. 6) and comprised mostly Little Black Cormorants and Nankeen Night Herons.
8. Most species functional response groups (feeding guilds) showed significant long-term declines (OLS regression at $p=0.05$; variables 4th root or log transformed where appropriate and autocorrelation plots examined for serial autocorrelation. Fig. 3; Table 2). Long-term changes were also observed in decadal averages of total abundance, wetland area index, breeding index and breeding species' richness (Fig. 4).

2023 Eastern Australian Waterbird Aerial Survey Results (continued)

10. Wetland area index (192,083 ha), decreased considerably from the previous flood year, to well below the long-term average. Some rivers and wetlands in the northern Lake Eyre Basin including the Diamantina and Georgina rivers, retained water in deeper channels and pools after moderate flooding and supported large numbers of waterbirds (Fig.7). Bands 2, 3 & 4 contained the largest areas of habitat – comprising 64% of the inundated wetland area sampled (Fig.2). Important habitat areas included Macquarie Marshes, Lowbidgee wetlands, Paroo Overflow lakes, Talyawalka Creek, Menindee Lakes and Proserpine Dam and Lakes Galilee and Moondarra in the north (Fig. 5).
11. The Macquarie Marshes had less extensive flooding than the previous year and supported relatively low numbers of waterbirds; no breeding colonies were active. The Lowbidgee wetlands also had intermediate inundation extent and supported moderate numbers of waterbirds and very low breeding. Most wetlands in the regulated Menindee Lakes system were full, including outside the survey band to the north - Copi Hollow and Lakes Wetherell, Pamamaroo, Bijiji and Balaka. Overall, there were moderate waterbird numbers and little breeding activity on these wetlands. The Talywalka Lakes systems also held considerable water and moderate to high numbers of waterbirds (Fig. 7).
12. Waterbirds had 72% of their total abundance distributed across thirty wetlands, making them less spatially concentrated and more evenly spread than the previous year. Nevertheless, two Band 8 wetlands (Lakes Torquinnie and Mumbleberry) supported more than 180,000 waterbirds representing 31% of the total abundance (Fig. 5). These wetlands together with the Talywalka Lakes and Proserpine Dam generally supported large numbers of waterbirds and high species diversity (Figs 2 & 6). Conversely around 40% of surveyed wetlands supported no waterbirds (includes wetlands that were dry).
13. Total breeding index (nests + broods) was 6,036 (all species combined), an order of magnitude decrease from the previous year (60,580) and below the long-term average (Figs. 1 & 6). Breeding species' richness also decreased considerably with 11 species recorded breeding. Five species comprised 97% of the total breeding recorded, primarily numbers of nests (Little Black Cormorants, 4,400; Darter 959; Nankeen Night Heron 400; Australian White Ibis 355, and Pied Cormorants 161).
14. Most game species of ducks had abundances well above long term averages, in some cases by an order of magnitude. Despite this, five out of eight species continued to show significant long term declines (OLS regression at $p=0.05$; variables 4th root or log transformed where appropriate Table 3). Chestnut Teal increased sharply from the previous year to their highest abundance since 1991. One species (Australian Shelduck) declined in abundance compared to 2022.
15. Waterbird indices (abundance, breeding species richness), across river basins responded to widespread dryer conditions than the previous flood year with declines in wetland area and breeding. Overall abundance increased, after high levels of breeding in the previous year. Wetland areas decreased in the Murray-Darling Basin compared to the previous year (Fig. 8). Species relative abundances were less even compared to previous years – with 10 species comprising 79% of total abundance. These species were, in order of decreasing abundance: Grey Teal, Pink-eared Duck, Eurasian Coot, Great Cormorants, Pacific Black Duck, Australian Wood Duck, Pelicans, Chestnut Teal, Black Swans and Banded Stilts.

2023 Eastern Australian Waterbird Aerial Survey Results (continued)

16. Selected species distribution and abundances are shown in Figures 10-20; Freckled Duck, Plumed Whistling Duck and Pelicans were included for comparison with game species. Map plots in these figures show 2023 distribution and trend plots show changes in abundance over time (1983-2023). Horizontal lines in trend plots indicate the long-term average.
17. Across Eastern Australia overall abundance, breeding index and breeding species richness were positively related to available habitat (wetland area index). Conversely, declines in wetland area were likely to result in declines in waterbird abundance, breeding and breeding species richness (Fig. 9).

Methods

Methods are described in detail in Braithwaite et al. (1985) and Kingsford et al. (2020) – a short description follows here. All waterbirds (including nests and broods) were counted from high-winged aircraft (e.g. Cessna 206 or 208) at 167–204 km hr⁻¹ and a height of 30–46 m, within 150 m of the wetland's shoreline where waterbirds concentrated. A front-right observer (navigator) and a back-left observer independently record counts on audio recorders, with their combined counts making up a completed count. Counts are attributed on the recorder to a unique number for each wetland, and a geolocation (longitude, latitude), as well as the exact time of day the count commenced. All timing is synchronised to GPS time – this enables audio counts to be linked to location via a GPS track log of the flight path. The percent fullness (inundated area) of each wetland is also estimated, relative to the mapped high-water mark. Inundated areas (ha) are also estimated for wetlands which are not mapped.

An area of 2,697,000 km² is systematically sampled with ten survey bands 30 km in width, spaced every 2° of latitude from 38°30'S to 20°30'S. Waterbirds are counted on all waterbodies (rivers and wetlands) larger than 1 ha within survey bands; additional counts are made on an ad-hoc basis of wetlands smaller than 1 ha. This ensures information is collected across a representative sample of waterbodies (wetlands, dams, lakes, estuaries and rivers).

All waterbirds are identified to species, except those few that cannot be consistently identified to species' level from the air and were grouped: small grebes (Australasian Little Grebe, Hoary Headed Grebe), small egrets (Cattle Egret, Little Egret and Intermediate Egret), terns and small and large migratory wading birds (Charadriiformes). Counts of no birds are also recorded, as are dry wetlands. Waterbirds are counted singly and in groups, progressively increasing up to 1,000 individuals. Waterbird nomenclature and classification follows the IOC World Bird List (Gill et al. 2023).

Three counting techniques are used: total counts, proportion counts and transect counts. For total counts, all birds are counted during a circumnavigation of the wetland, the preferred method for wetlands with large concentrations of waterbirds. For proportion counts, a proportion (usually >50%) of a large wetland with few waterbirds (e.g. large dam) is surveyed, with counts extrapolated to give total counts. For the final transect method, waterbirds are counted within 200 m-wide transects (100 m on each side of the aircraft, delineated by tape markers on each aircraft wing strut), a technique only used for braided complex large wetlands. Total estimates are formed from the relative area of the transects, compared to total area flooded. Most counts are total counts or proportion counts greater than 50%.

Acknowledgements

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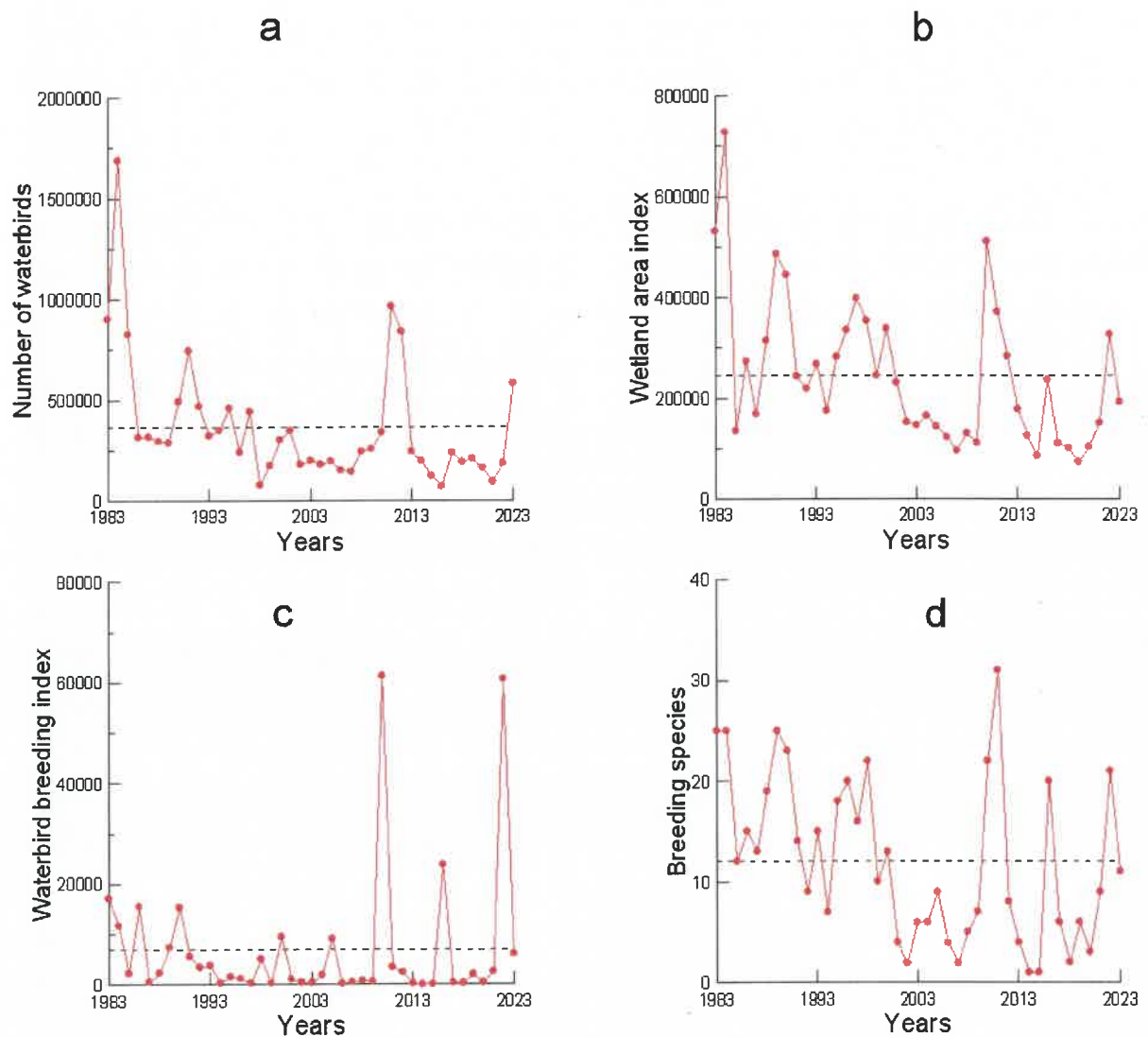


Figure 1. Changes over time in a) total abundance, b) wetland area, c) breeding and d) number of breeding species in the Eastern Australian Waterbird Aerial Survey transects (1983-2023); horizontal lines show long-term averages.

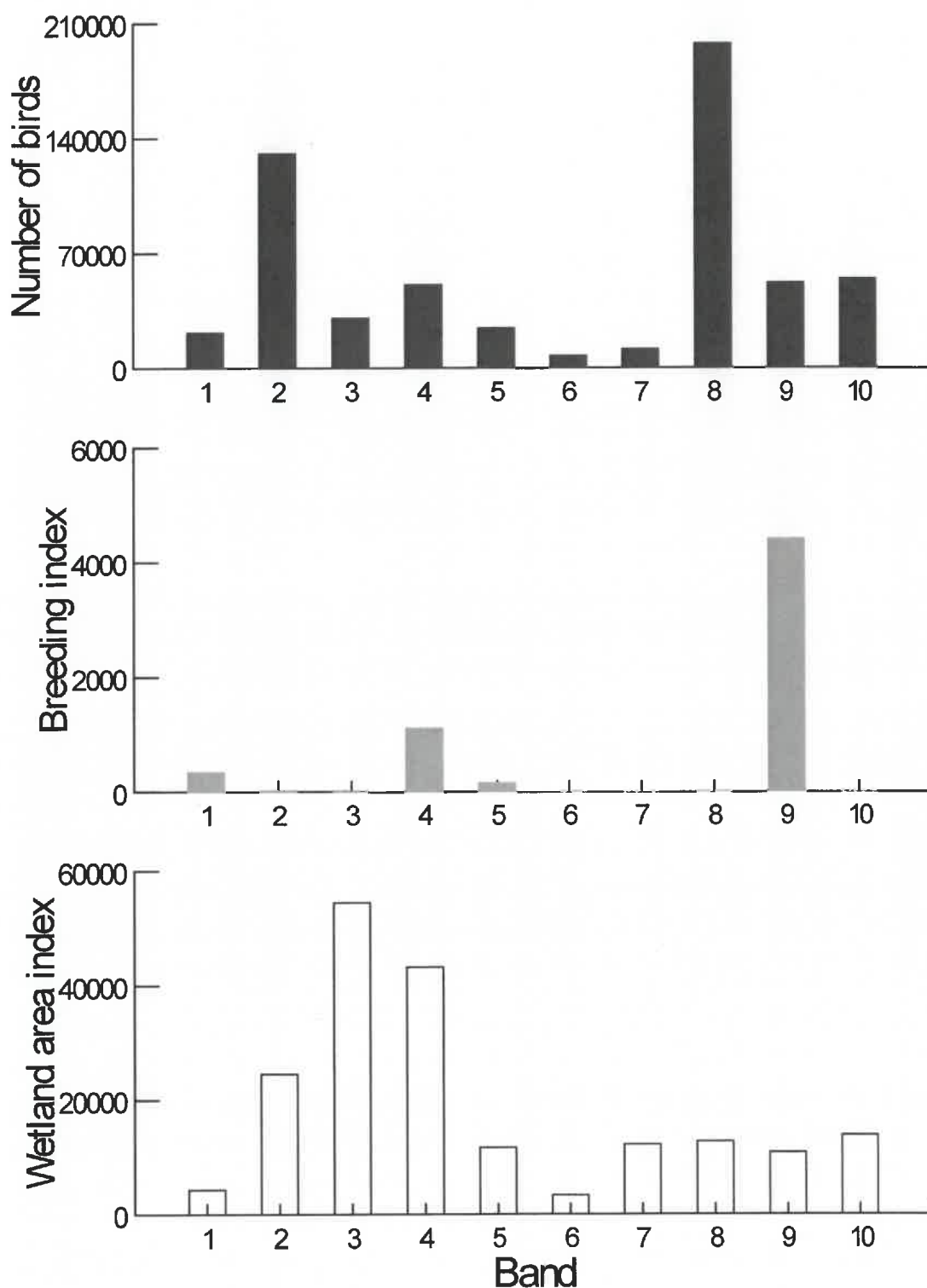


Figure 2. Distribution of waterbird abundance, breeding index and wetland area index in survey bands 1-10 (south to north respectively) of the Eastern Australian Waterbird Aerial Survey in 2023.

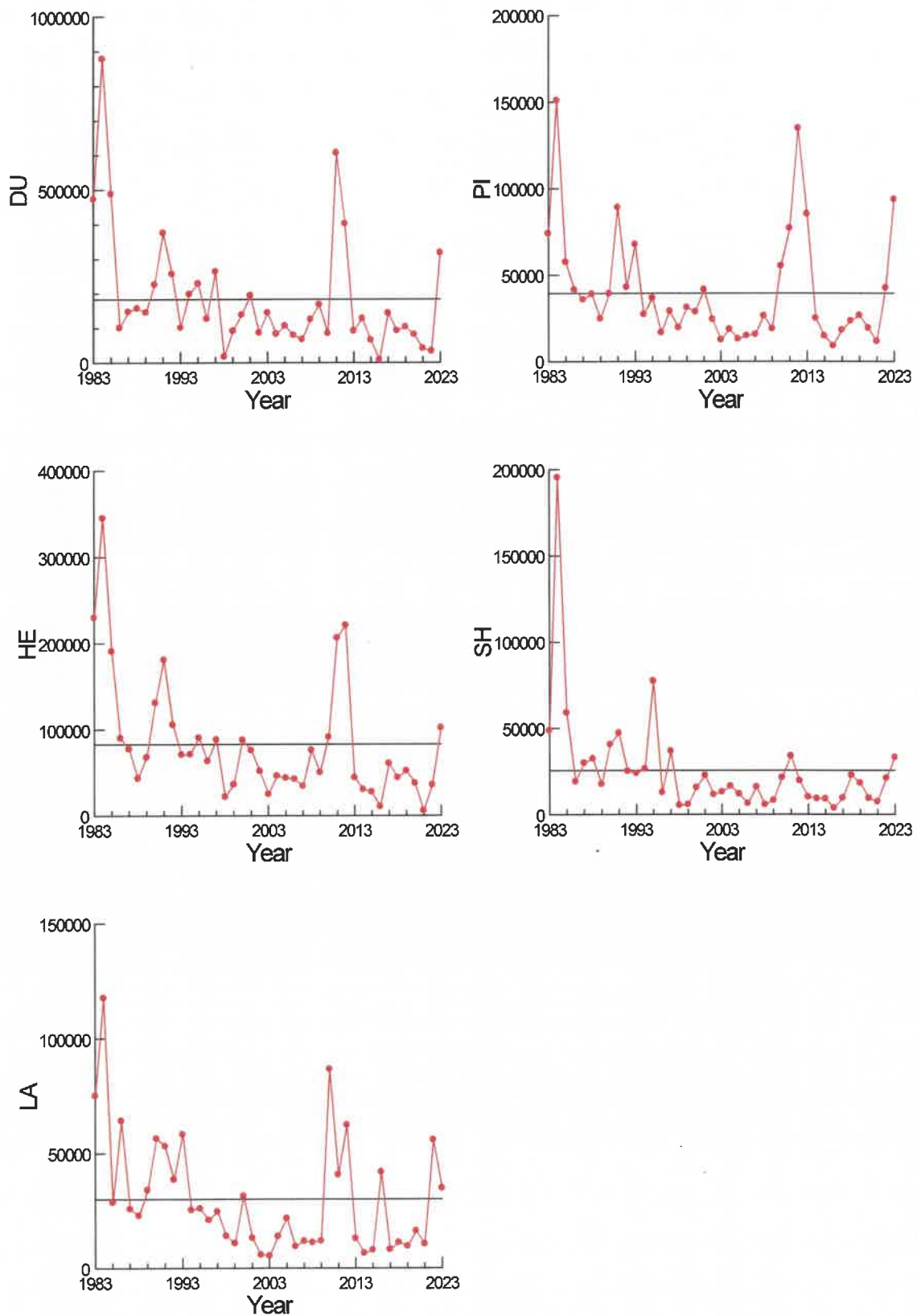


Figure 3. Changes in abundances of waterbird functional response groups (Du=ducks; Pi=piscivores; He=herbivores; Sh=shorebirds; La=large wading birds) over time in the Eastern Australian Waterbird Aerial Survey bands (1983-2023).

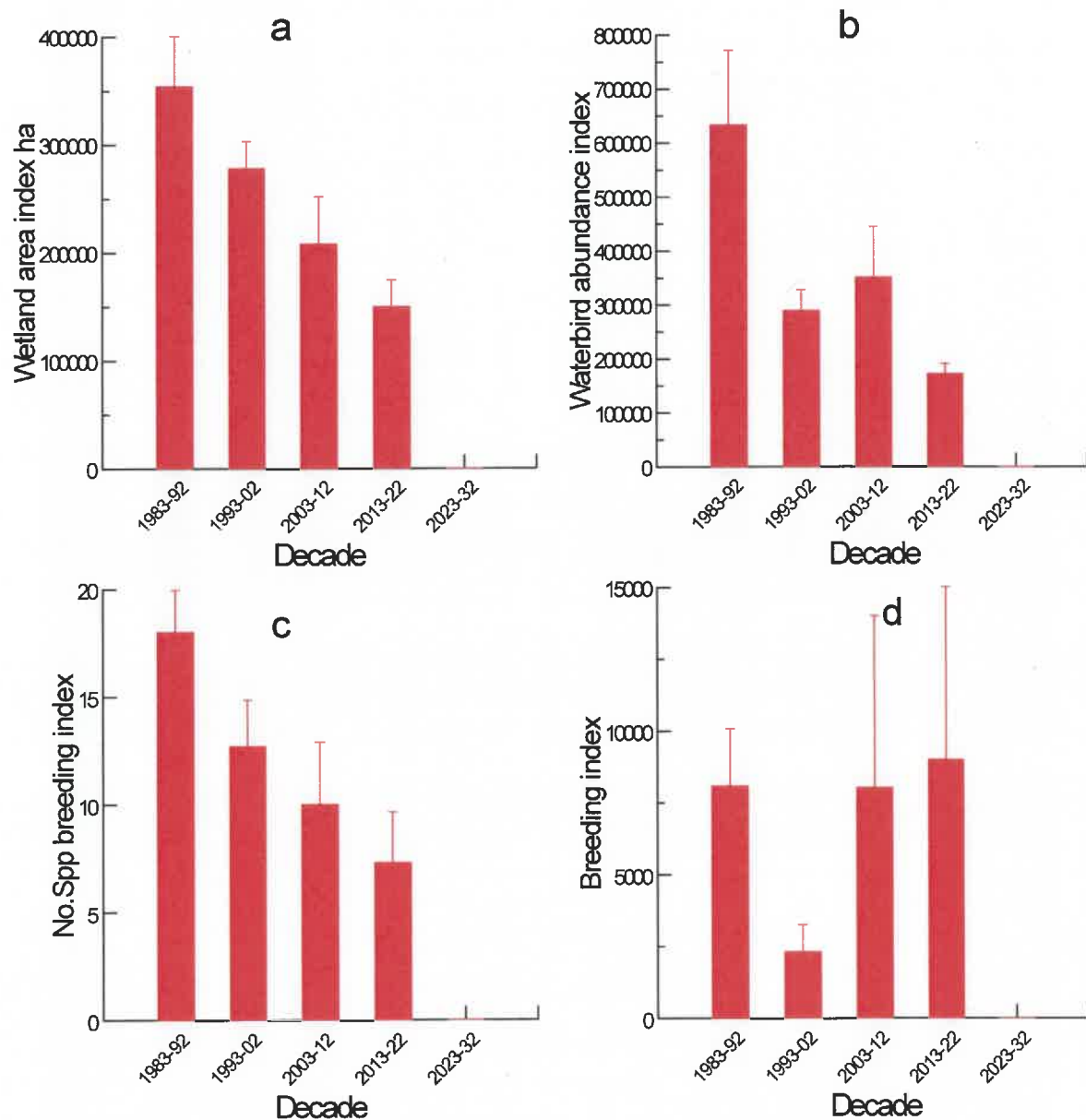


Figure 4. Decadal means of a) wetland area index, b) total abundance index, c) number of breeding species and d) breeding index in the Eastern Australian Waterbird Aerial Survey (1983-2023). Error bars are SE. The most recent decade with only a single year's data (2023) is not shown.

Table 1. Trends in total waterbird abundance index, wetland area index, breeding index and breeding species richness in the Eastern Australian Waterbird Aerial Survey (1983-2023).

Variable	Trend	Regression all years	Trend	Regression 1983-84 omitted
Total waterbird abundance	decline	$r^2=0.30$, $p<0.001$	decline	$r^2=0.20$, $p=0.004$
Wetland area index	decline	$r^2=0.27$, $p<0.001$	decline	$r^2=0.18$, $p=0.007$
Breeding index	no trend	$r^2=0.02$, $p=0.363$	no trend	$r^2=0.003$, $p=0.759$
Breeding species richness	decline	$r^2=0.19$, $p=0.004$	decline	$r^2=0.12$, $p=0.030$

Table 2. Trends in abundances of functional response (Fx) groups, in the Eastern Australian Waterbird Aerial Survey (1983-2023).

Fx group code	name	Trend	Regression all years	Trend	Regression 1983-84 omitted
Du	Ducks	decline	$r^2=0.22$, $p=0.002$	decline	$r^2=0.14$, $p=0.017$
He	Herbivores	decline	$r^2=0.25$, $p=0.001$	decline	$r^2=0.15$, $p=0.017$
La	Large wading birds	decline	$r^2=0.18$, $p=0.006$	no trend	$r^2=0.09$, $p=0.060$
Pi	Piscivores	no trend	$r^2=0.08$, $p=0.071$	no trend	$r^2=0.02$, $p=0.355$
Sh	Shorebirds	decline	$r^2=0.29$, $p<0.001$	decline	$r^2=0.21$, $p=0.002$

Table 3. Trends in abundances of game species from the Eastern Australian Waterbird Aerial Survey (1983-2023).

Species	Trend	Regression all years	Trend	Regression 1983-84 omitted
Pacific black duck	decline	$r^2=0.32$, $p<0.001$	decline	$r^2=0.21$, $p=0.004$
Australasian shoveler	decline	$r^2=0.45$, $p<0.001$	decline	$r^2=0.38$, $p<0.001$
Chestnut teal	no trend	$r^2=0.02$, $p=0.337$	no trend	$r^2=0.01$, $p=0.628$
Grey teal	decline	$r^2=0.27$, $p=0.001$	decline	$r^2=0.18$, $p=0.008$
Hardhead	no trend	$r^2=0.06$, $p=0.140$	no trend	$r^2=0.03$, $p=0.321$
Mountain duck	decline	$r^2=0.34$, $p<0.001$	decline	$r^2=0.26$, $p=0.001$
Pink-eared duck	no trend	$r^2=0.07$, $p=0.092$	no trend	$r^2=0.08$, $p=0.092$
Australian Wood duck	decline	$r^2=0.13$, $p=0.019$	no trend	$r^2=0.04$, $p=0.235$

2023 Total abundance index 579,641

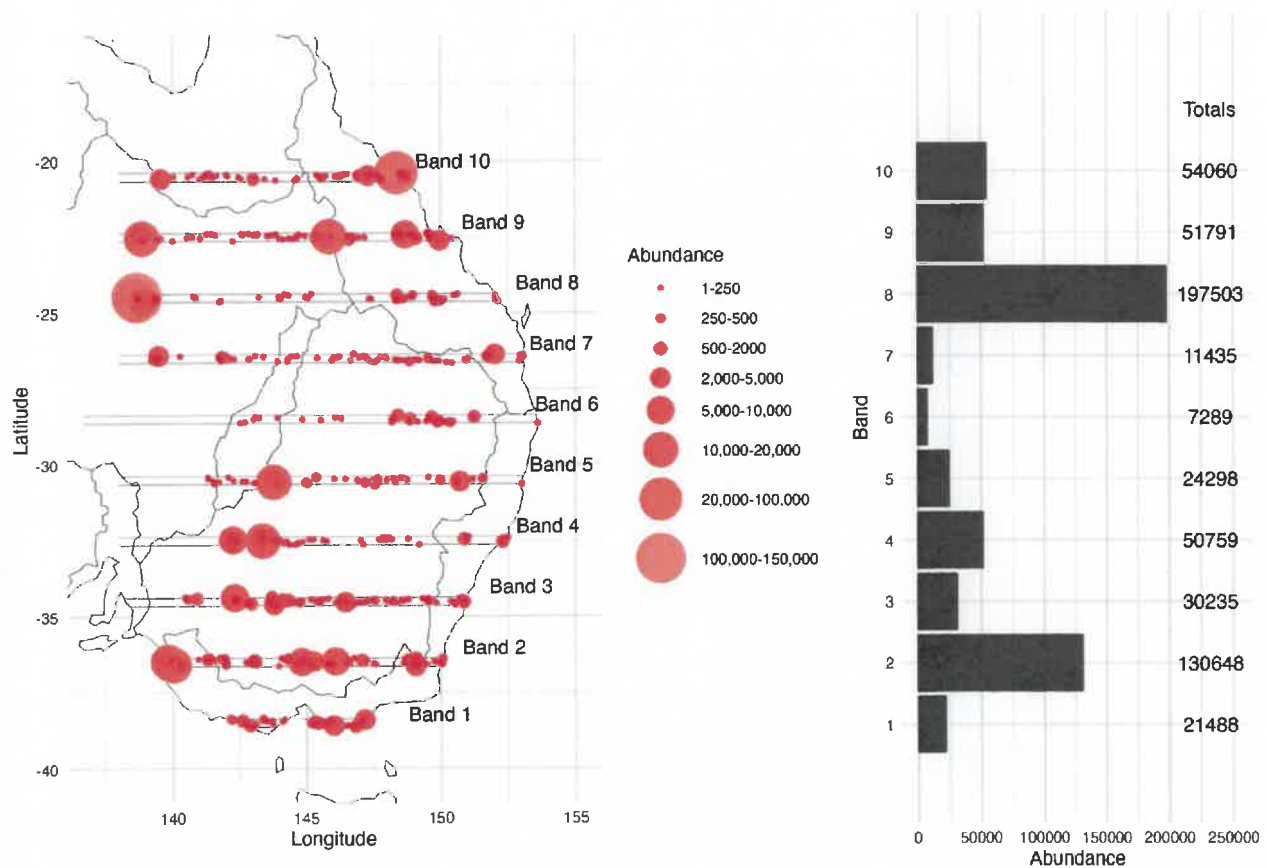


Figure 5. Distribution and abundance of waterbirds in the 2023 Eastern Australian Waterbird Aerial Survey bands. Dry wetlands and those with zero waterbirds not plotted.

2023 Breeding index – 6,036

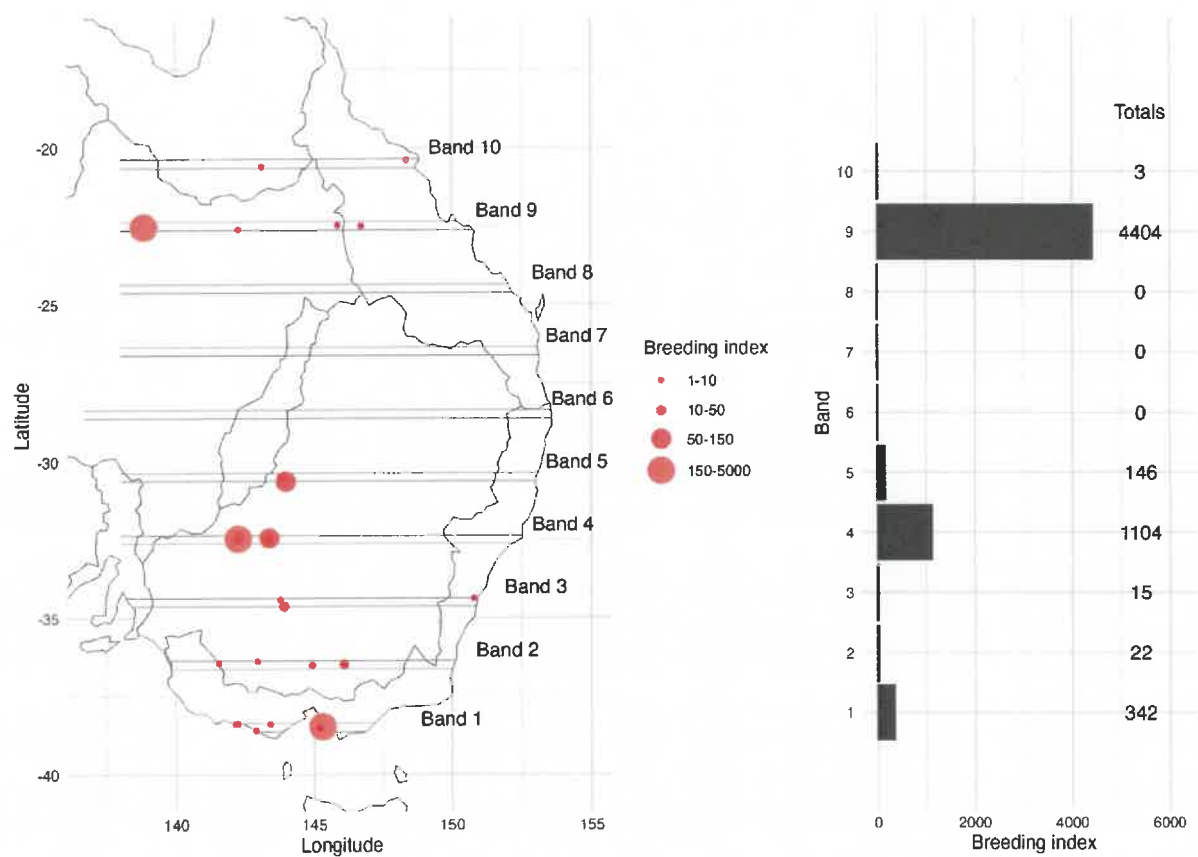


Figure 6. Distribution of waterbird breeding in the 2023 Eastern Australian Waterbird Aerial Survey bands. Only wetlands with breeding recorded are plotted.

2023 Wetland area index – 192,083 ha

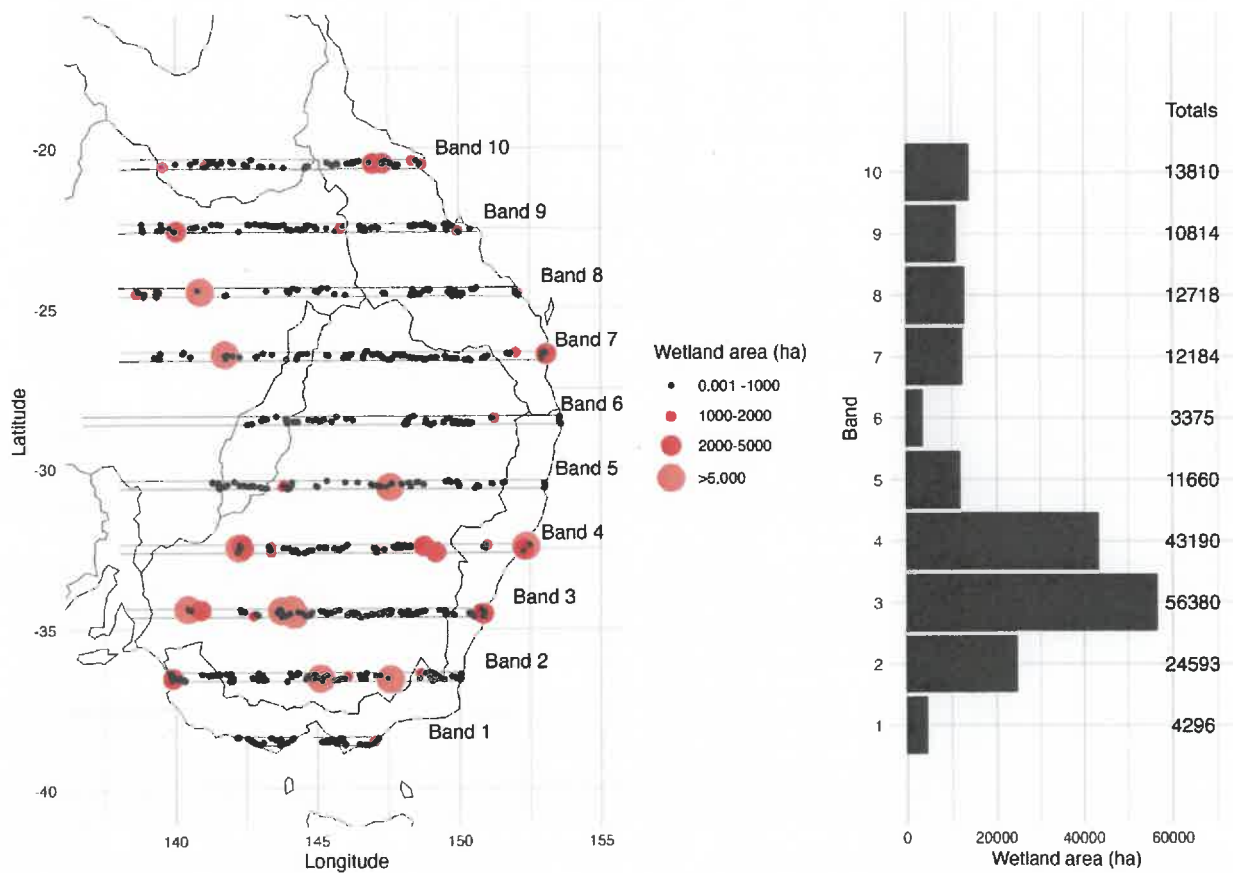


Figure 7. Distribution of wetland area in the 2023 Eastern Australian Waterbird Aerial Survey bands. All surveyed wetlands with surface water present are plotted; dry wetlands are not plotted.

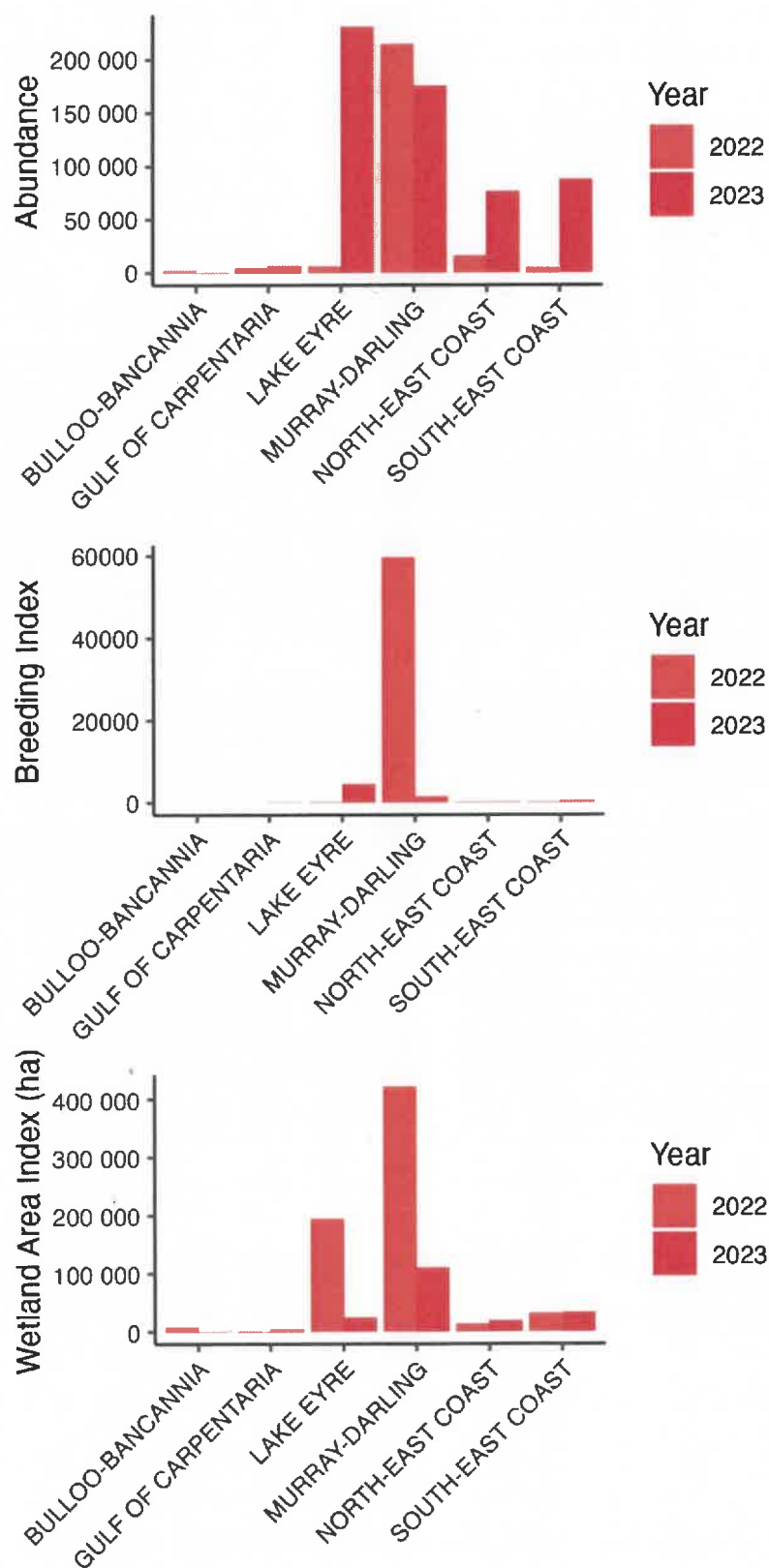


Figure 8. Comparison of waterbird abundance, breeding and wetland area indices in major river basins 2022-2023.

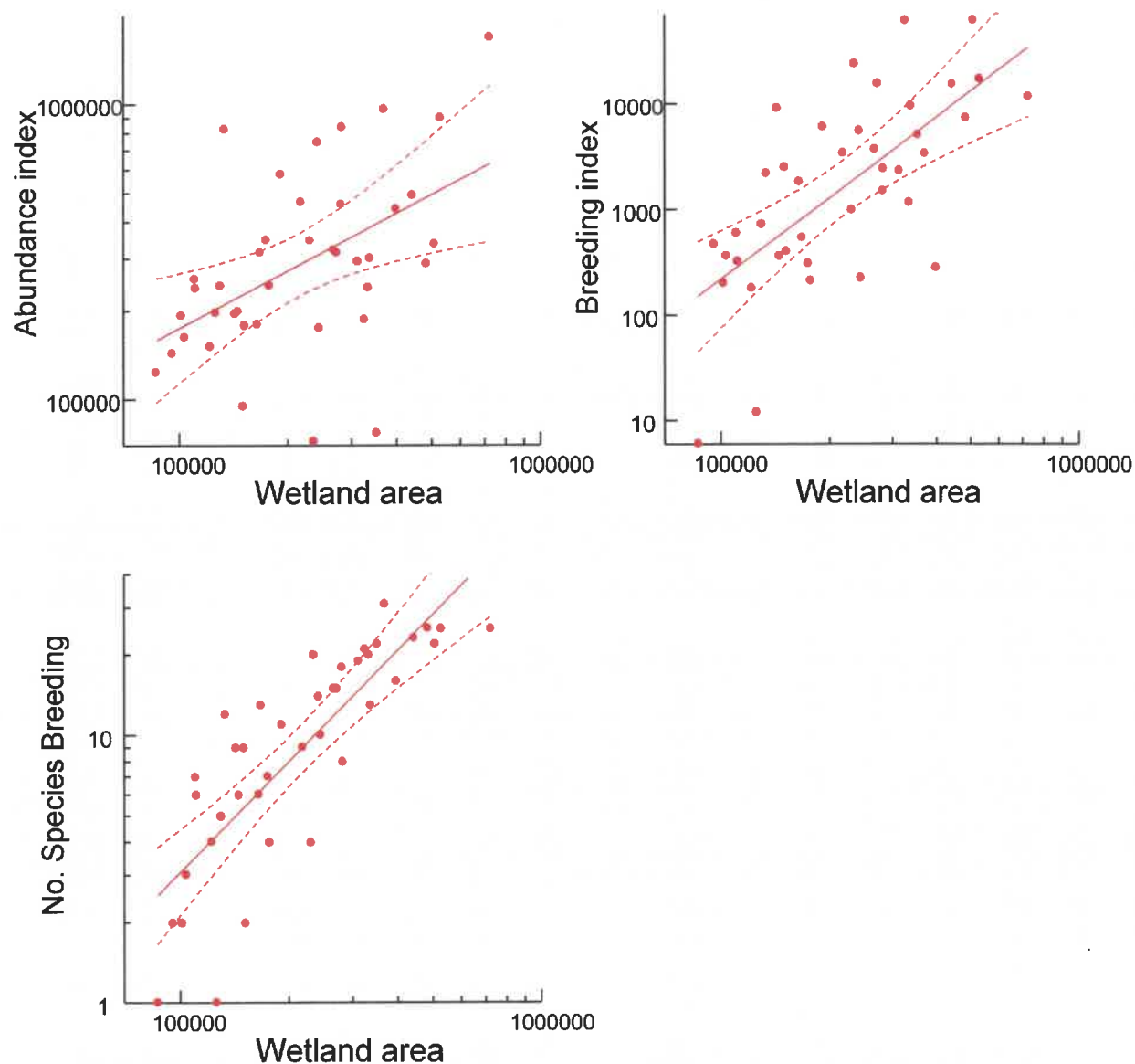
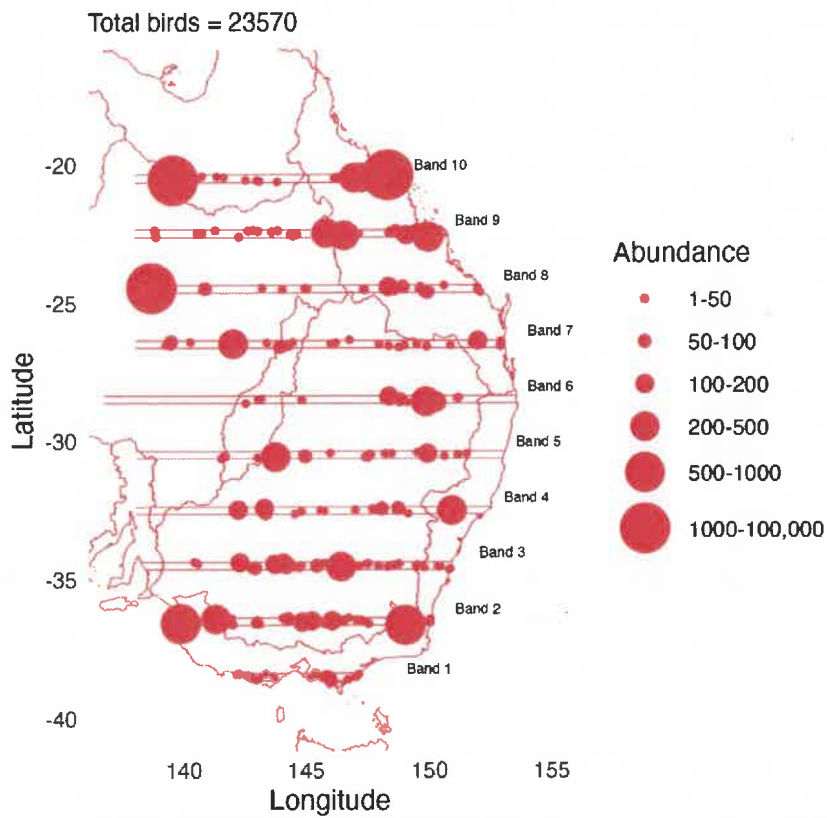


Figure 9. Significant positive interactions between abundance index, breeding index and number of breeding species with wetland area index (ha) for the Eastern Australian Waterbird Aerial Survey (1983-2023). Dashed lines are 95% confidence limits.

Pacific Black Duck



a)



b)

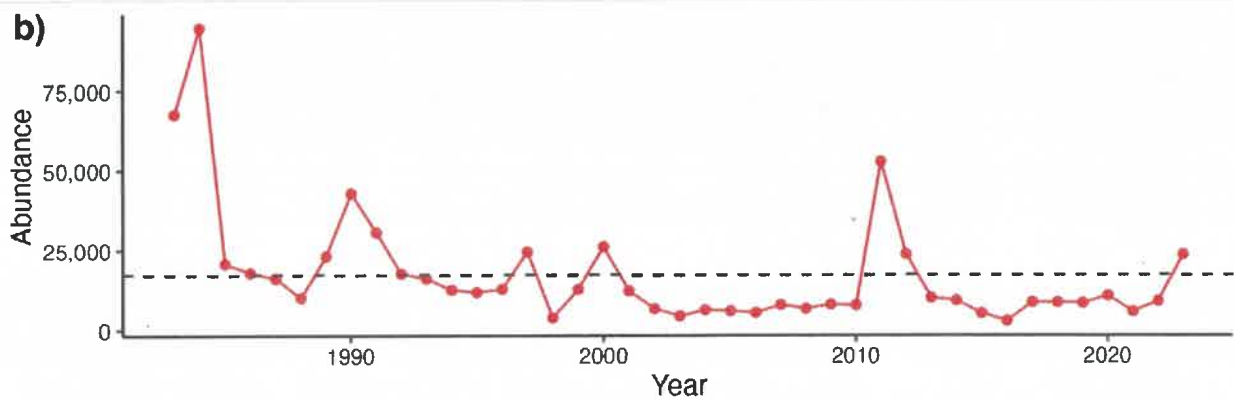
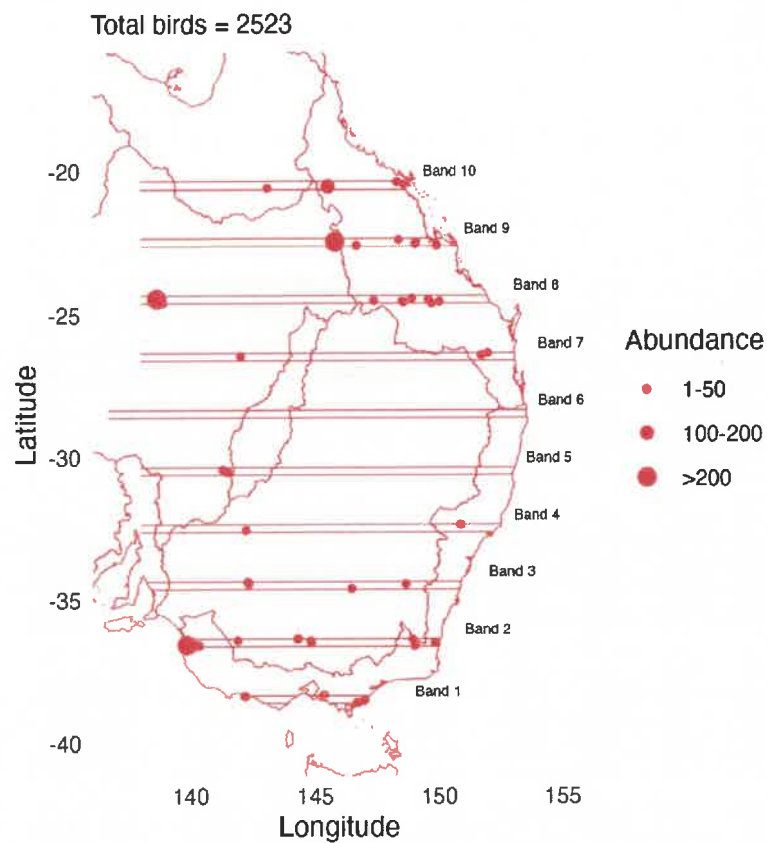


Figure 10. a) Distribution and abundance of Pacific Black Duck during the 2023 Eastern Australian Waterbird Aerial Survey. B) Changes in abundance (1983-2023).

Australasian Shoveler



a)



b)

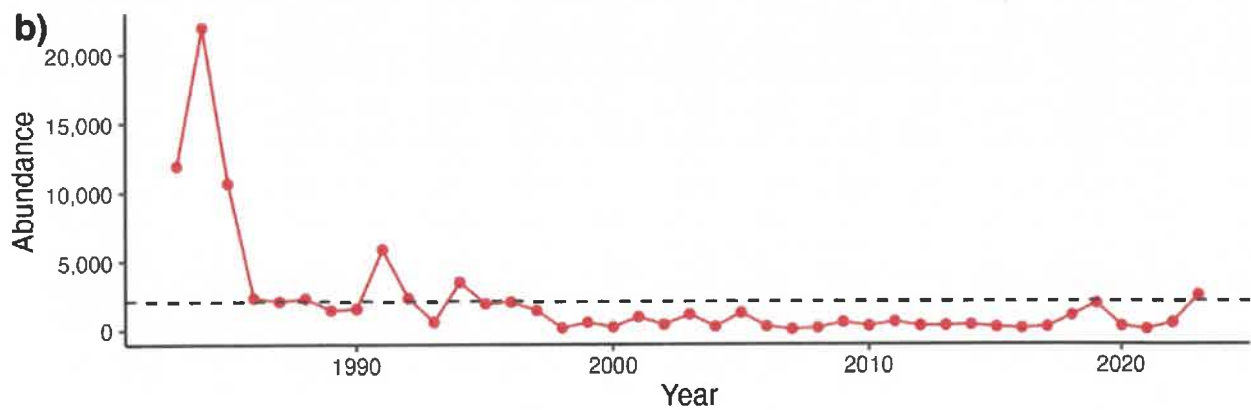
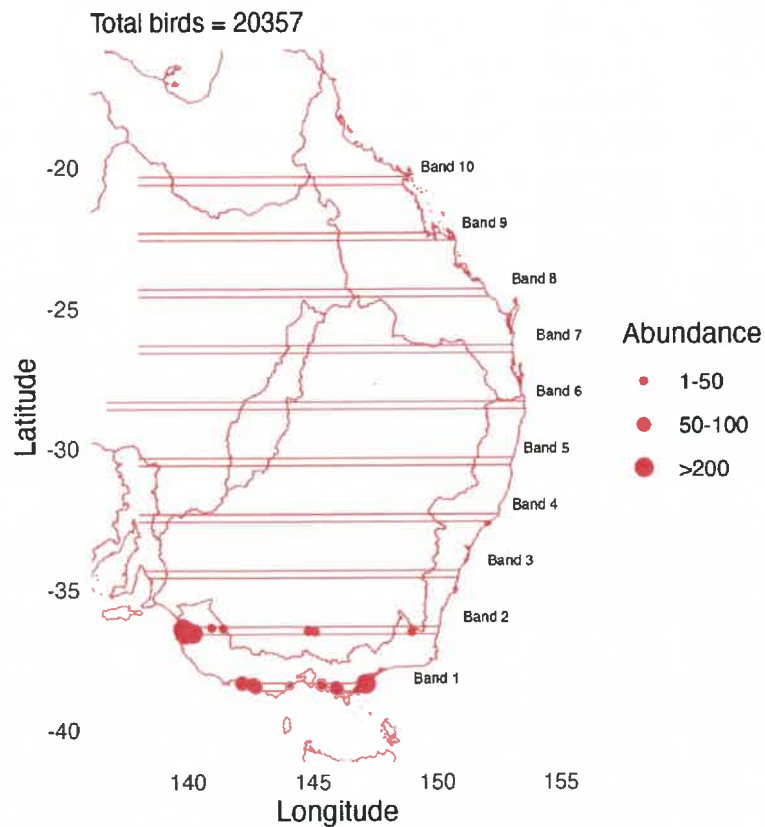


Figure 11. a) Distribution and abundance of Australasian Shoveler during the 2023 Eastern Australian Waterbird Aerial Survey. b) Changes in abundance index (1983-2023).

Chestnut Teal



a)



b)

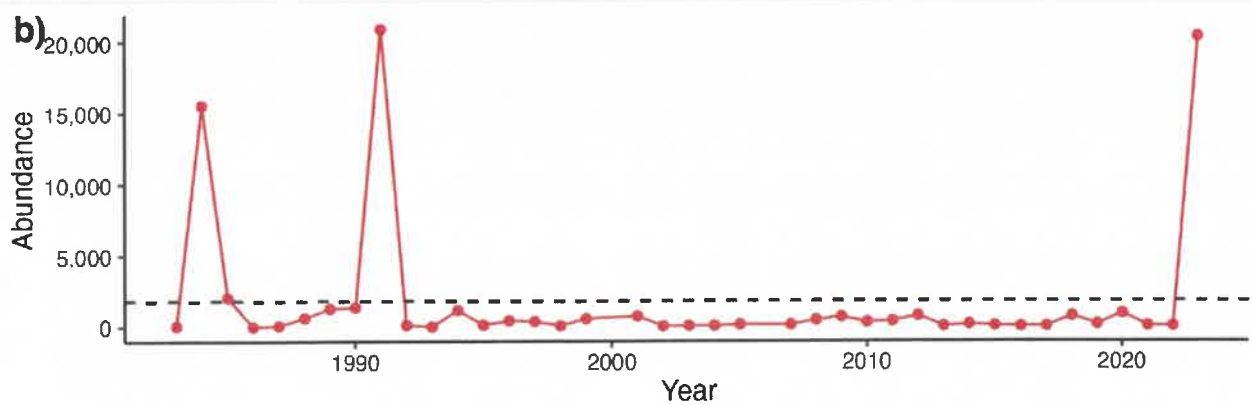
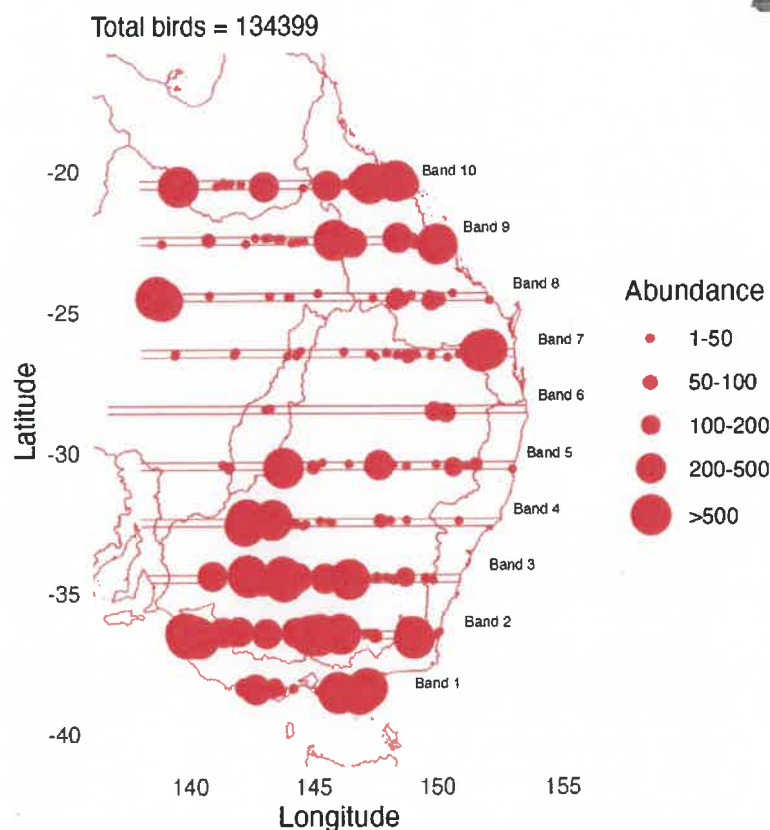


Figure 12. a) Distribution and abundance of Chestnut Teal during the 2023 Eastern Australian Waterbird Aerial Survey. b) Changes in abundance index (1983-2023).

Grey Teal



a)



b)

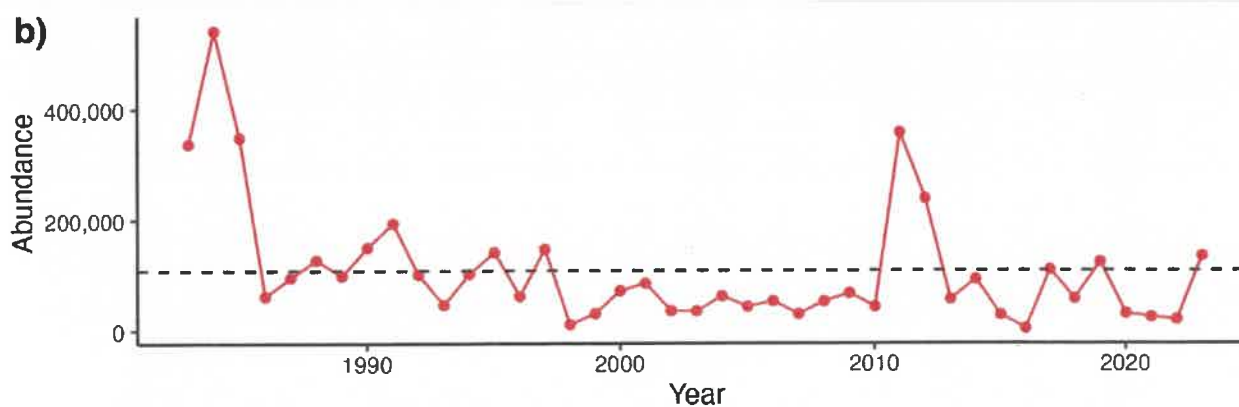
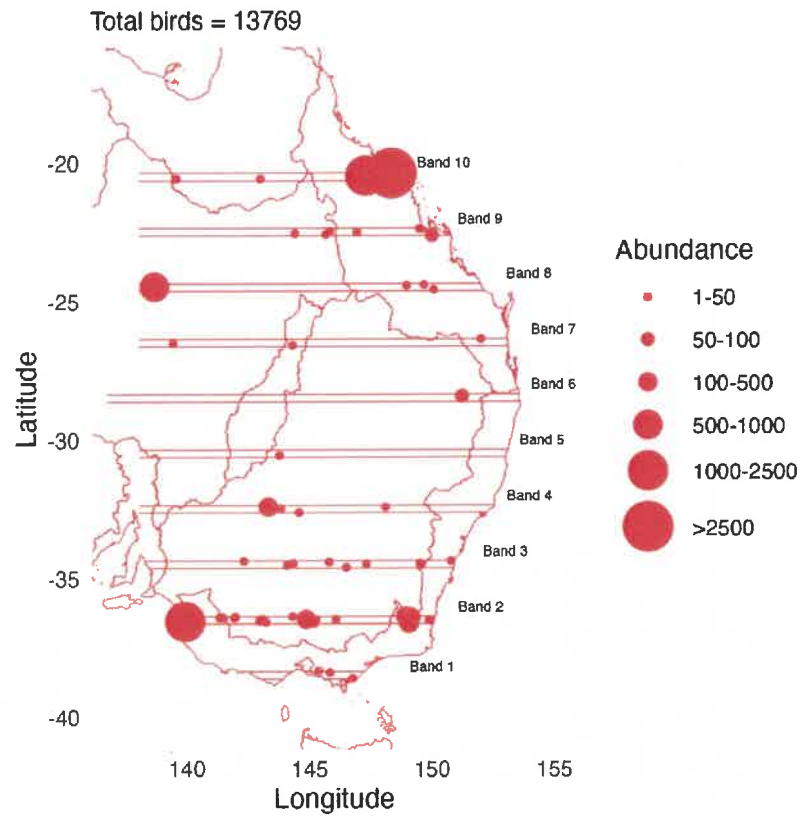


Figure 13. a) Distribution and abundance of Grey Teal during the 2023 Eastern Australian Waterbird Aerial Survey. b) Changes in abundance index (1983-2023).

Hardhead



a)



b)

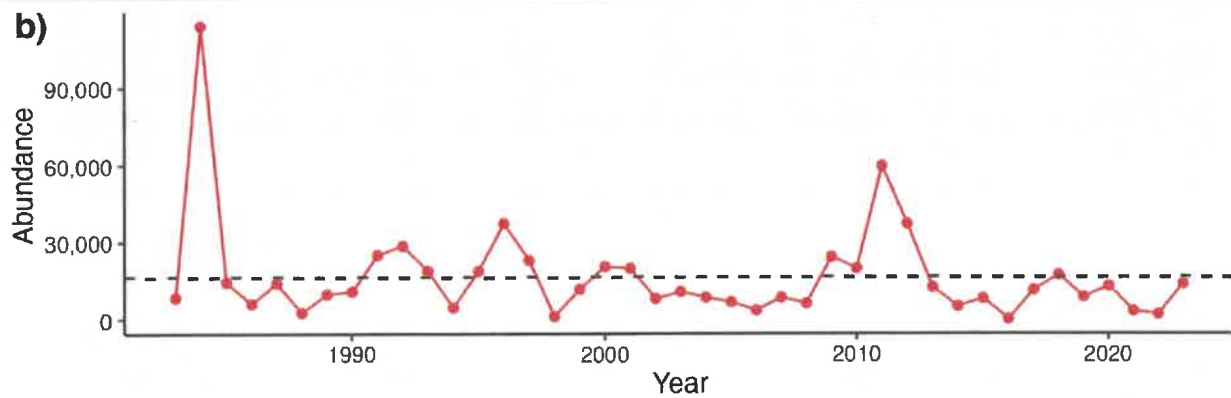


Figure 14. a) Distribution and abundance of Hardhead during the 2023 Eastern Australian Waterbird Aerial Survey. b) Changes in abundance index (1983-2023).

Freckled Duck



a)

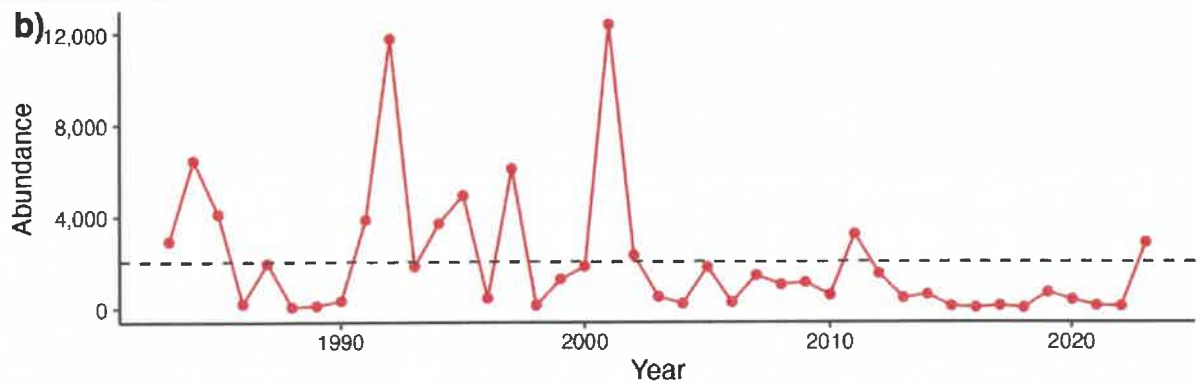
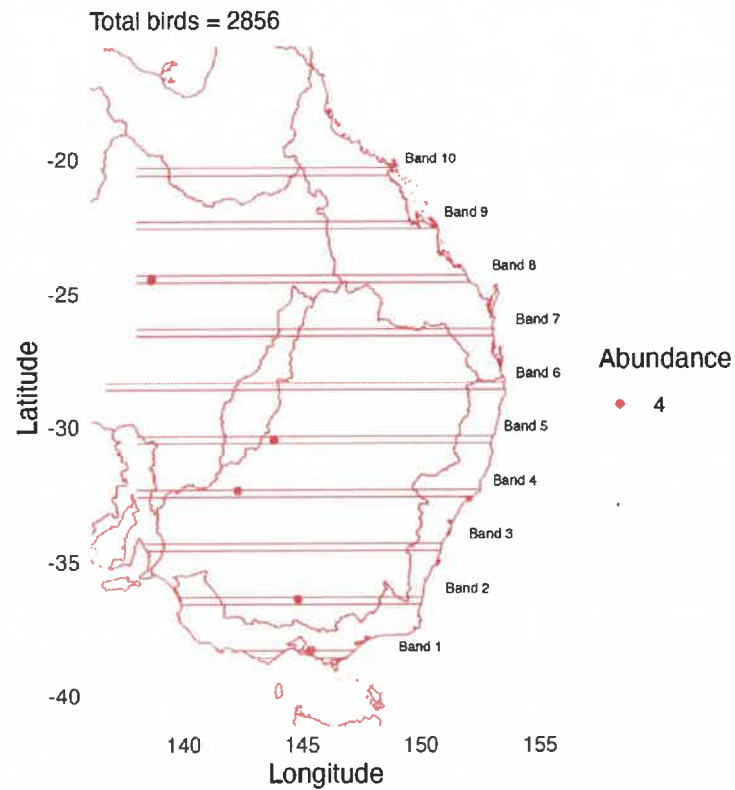
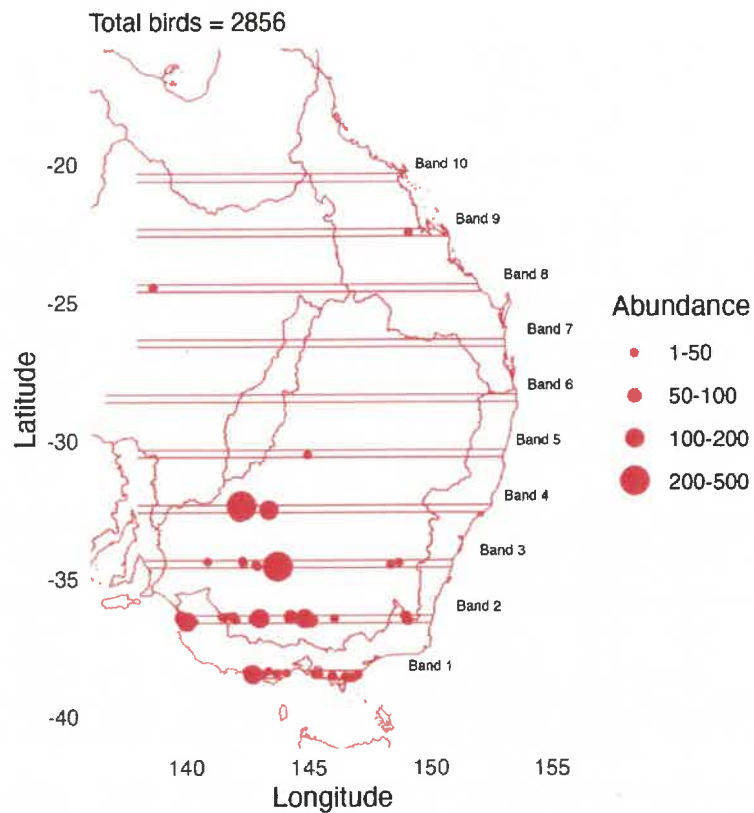


Figure 15. a) Distribution and abundance of Freckled Duck during the 2023 Eastern Australian Waterbird Aerial Survey. b) Changes in abundance index (1983-2023).

Australian Shelduck



a)



b)

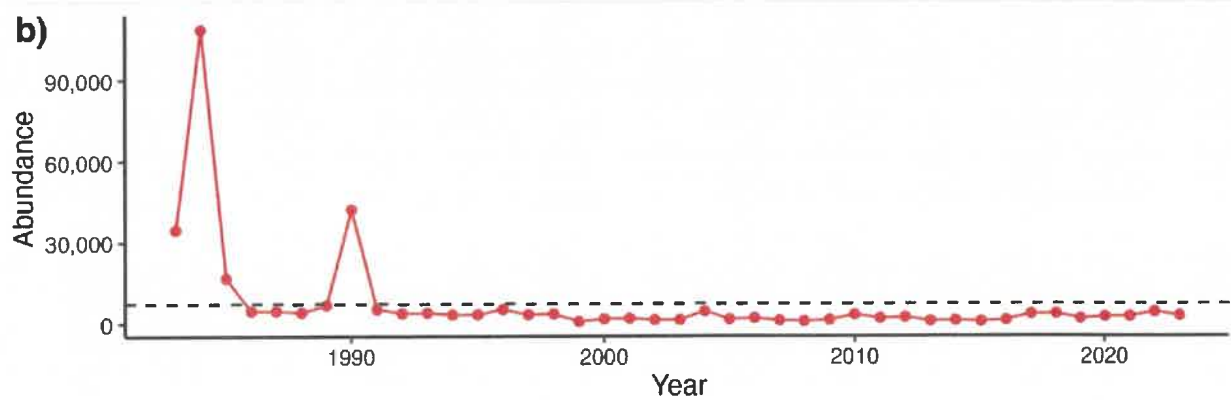
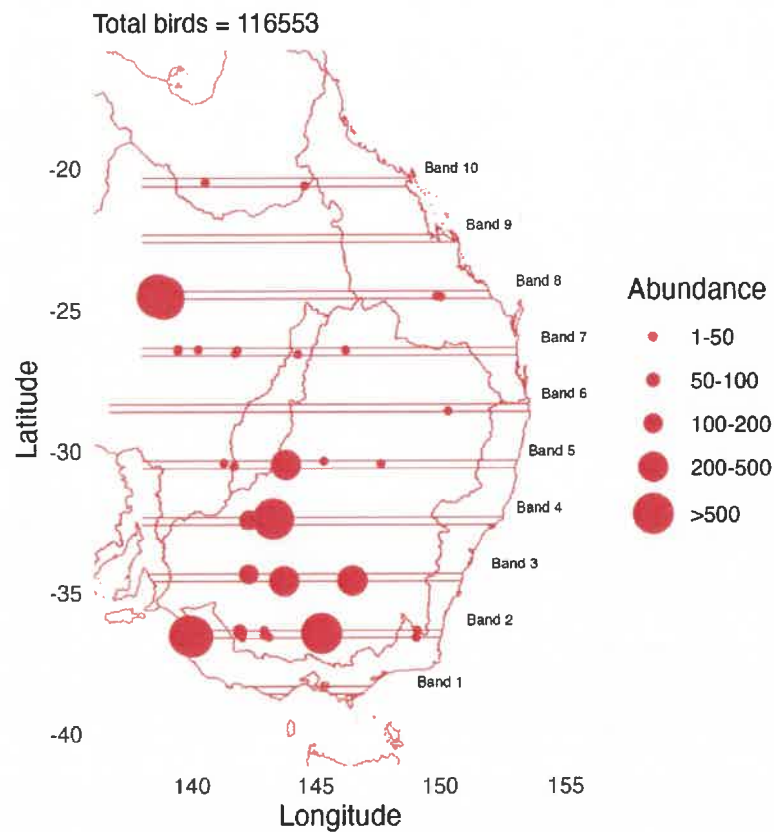


Figure 16. a) Distribution and abundance of Australian Shelduck during the 2023 Eastern Australian Waterbird Aerial Survey. b) Changes in abundance index (1983-2023).

Pink-eared Duck



a)



b)

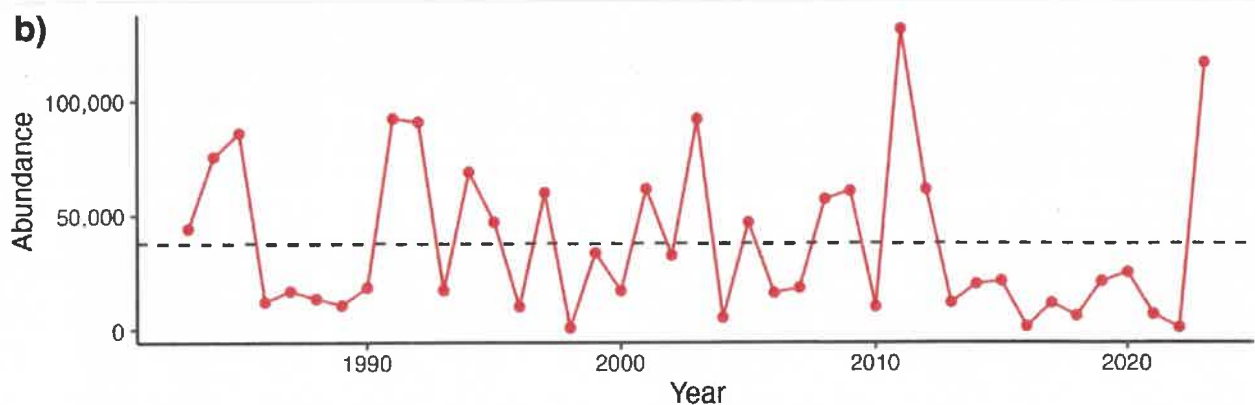
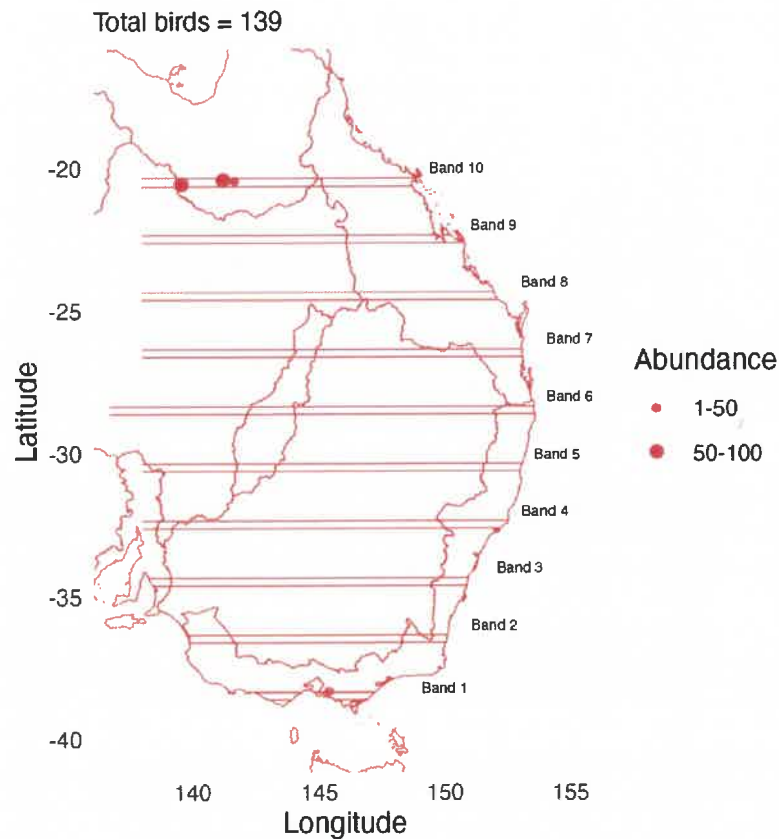


Figure 17. a) Distribution and abundance of Pink-eared Duck during the 2023 Eastern Australian Waterbird Aerial Survey. b) Changes in abundance index (1983-2023).

Plumed whistling- duck



a)



b)

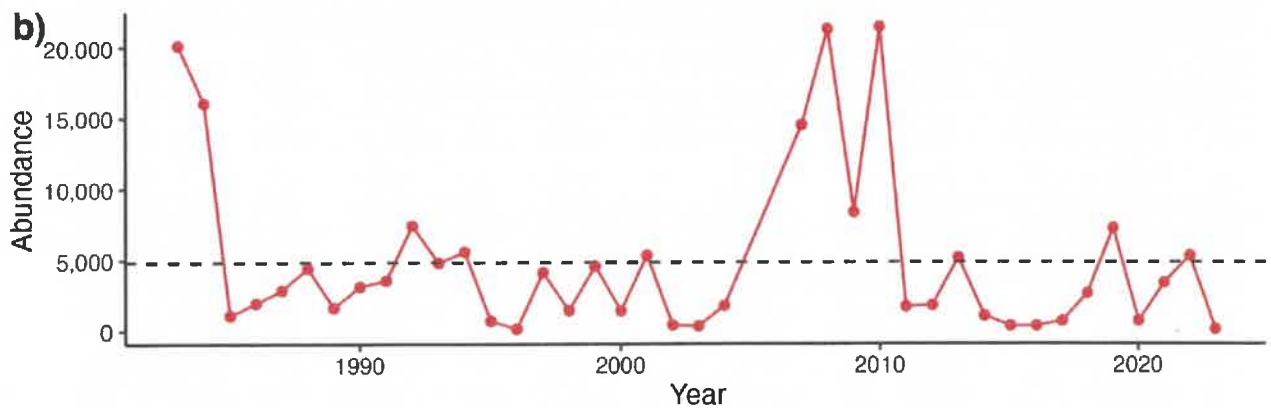
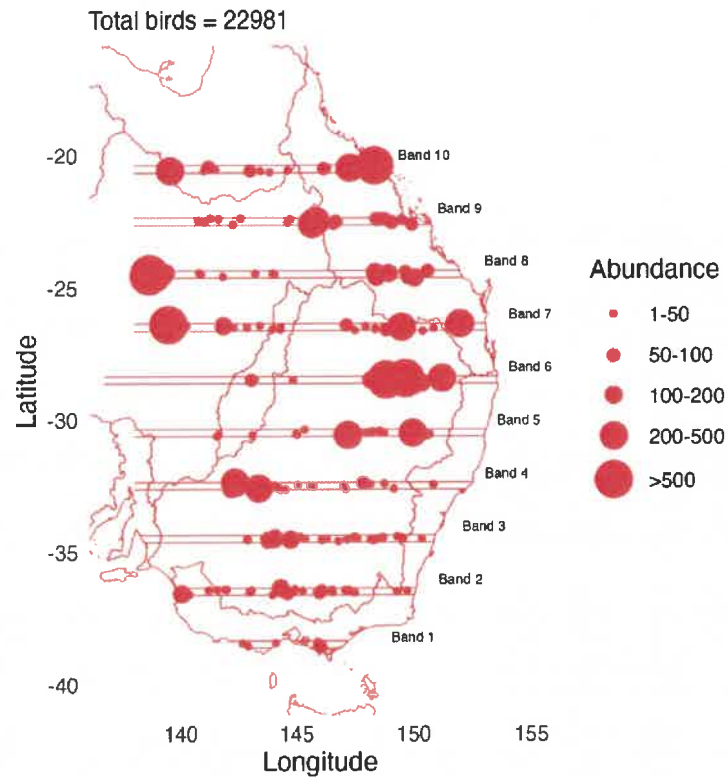


Figure 18. a) Distribution and abundance of Plumed Whistling Duck during the 2023 Eastern Australian Waterbird Aerial Survey. b) Changes in abundance index (1983-2023).

Australian Wood Duck



a)



b)

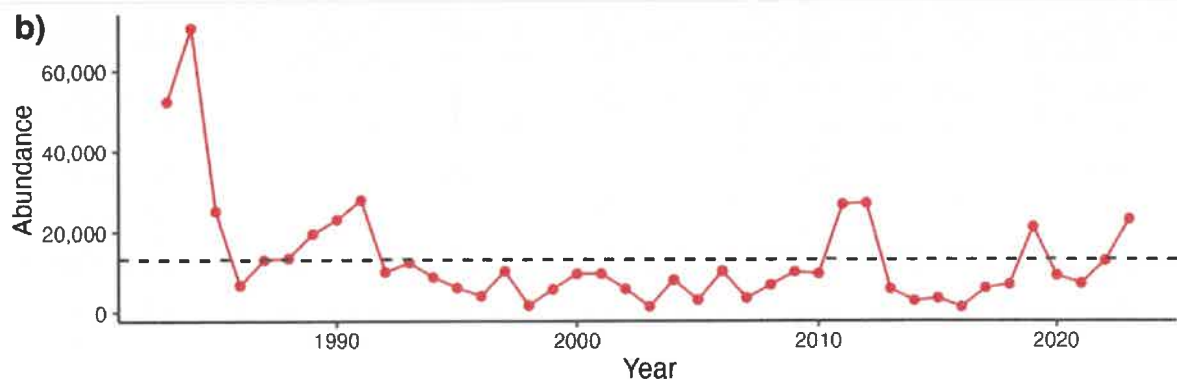
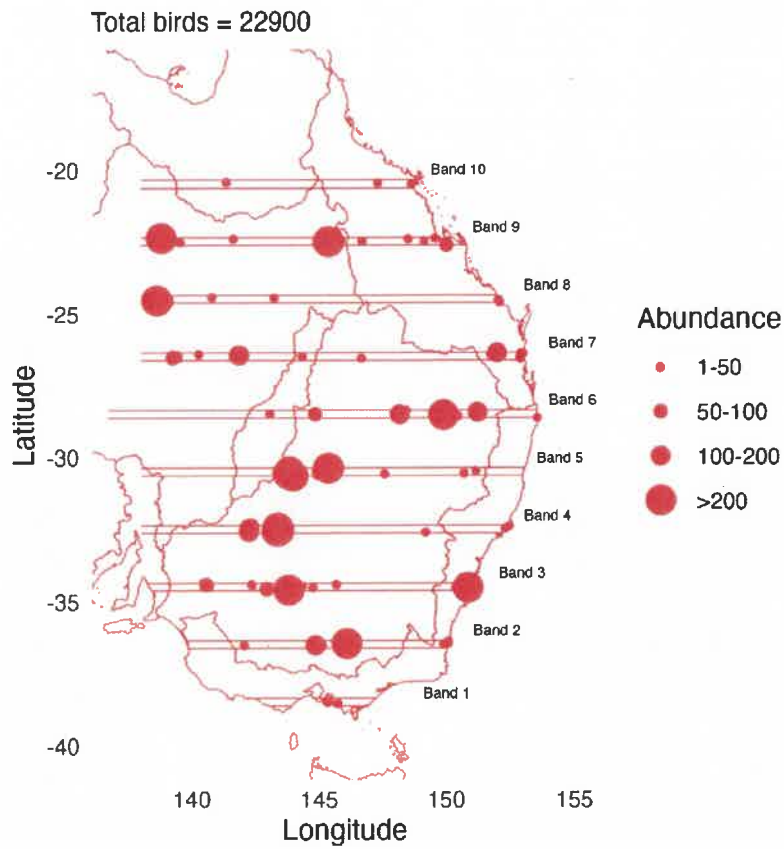


Figure 19. a) Distribution and abundance of Australian Wood Duck during the 2023 Eastern Australian Waterbird Survey. b) Changes in abundance index (1983-2023).

Australian Pelican



a)



b)

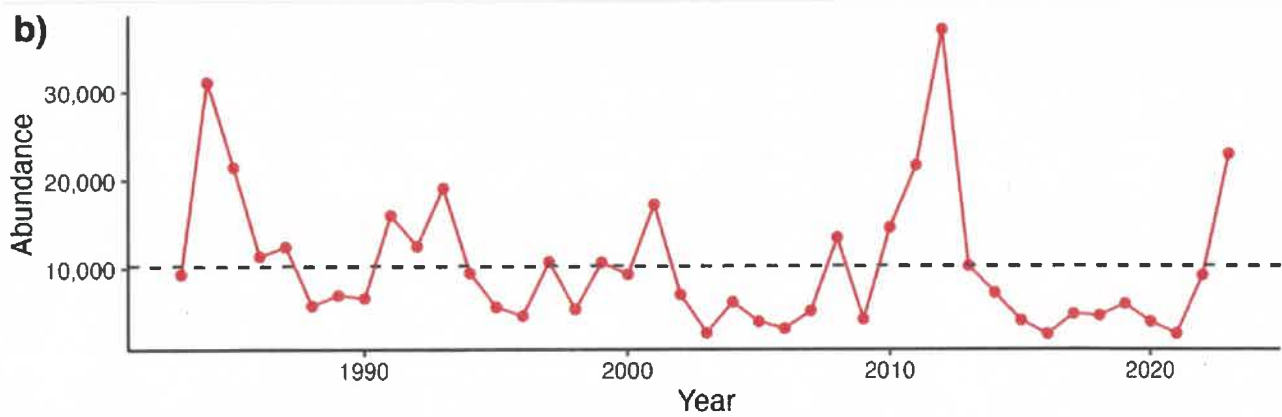


Figure 20. a) Distribution and abundance of Australian Pelican during the 2023 Eastern Australian Waterbird Survey. b) Changes in abundance index (1983-2023).

References

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2. Bureau of Meteorology (BOM) 2023a Climate driver update 2023. Accessed 27/11/2023. [Climate Driver Update \(bom.gov.au\)](#)
3. Bureau of Meteorology (BOM) 2023b Drought rainfall deficiencies and water availability. Accessed 27/11/2023 [Drought Statement \(bom.gov.au\)](#)
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6. Kingsford, R. T., Porter, J. L., Brandis, K. J., & Ryall, S. (2020). Aerial surveys of waterbirds in Australia. *Scientific Data* 7[172].
7. Queensland Government 2023 Drought declarations. Accessed 27/11/2023 [Drought Declarations | LongPaddock | Queensland Government](#)

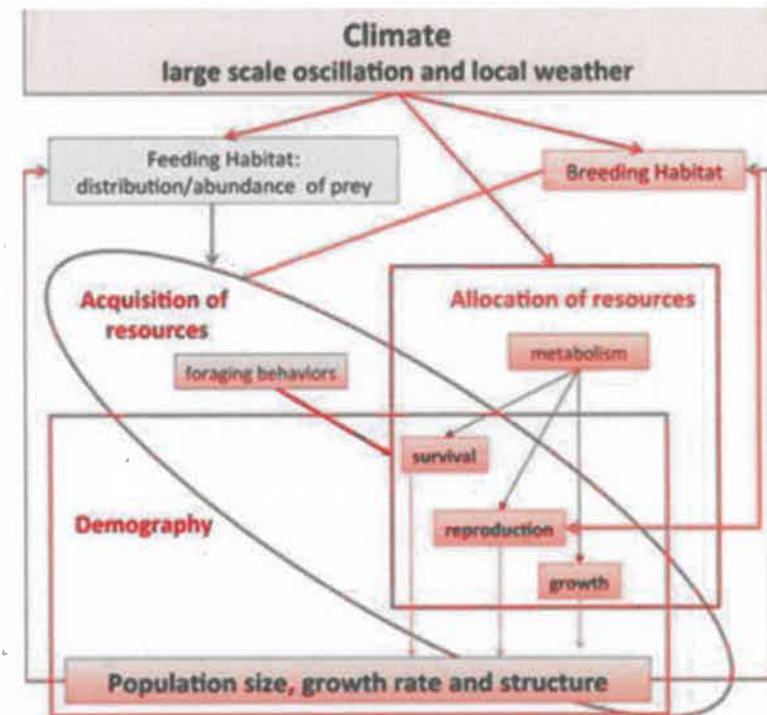


Considerations for the 2024 duck season

Current as at 19 December 2023

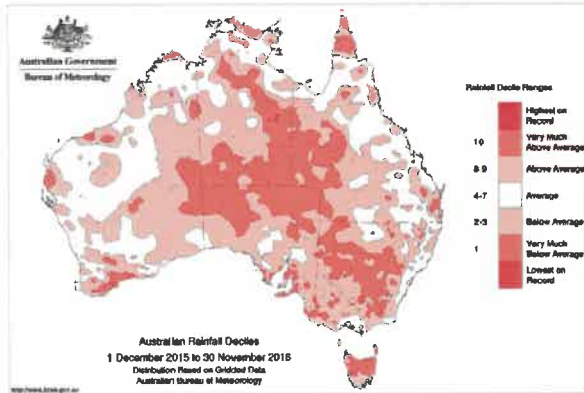
Climatic conditions and waterfowl

- Climatic conditions, such as large-scale oscillations (e.g. Southern Oscillation Index) and local weather (e.g. rainfall and temperature) can affect the distribution, productivity and size of waterfowl populations.
- In Australia, waterbird abundance is strongly related to river flows and rainfall (Kingsford *et al.* 2017).
- Large and extensive rainfall events can contribute to population increase as conditions are enhanced to support breeding and recruitment. Conversely, during dry periods, breeding may be modified or greatly reduced (see Kingsford and Norman 2002).
- Hunting during periods when there is little recruitment (e.g. dry periods) removes breeding adults which can negatively affect subsequent recruitment and further drive declines in hunted species (Kingsford *et al.* 2017).

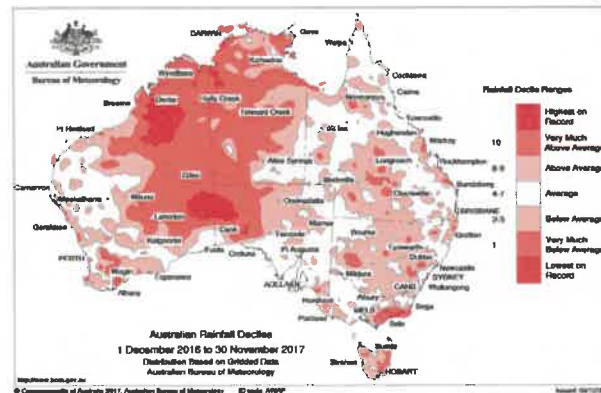


Climate effect on waterbird populations. Source: Jenouvrier 2013

2016

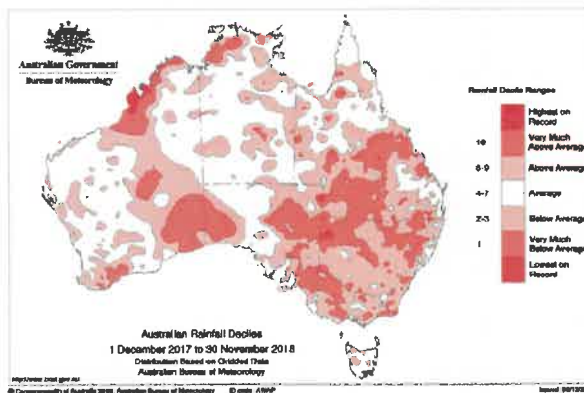


2017

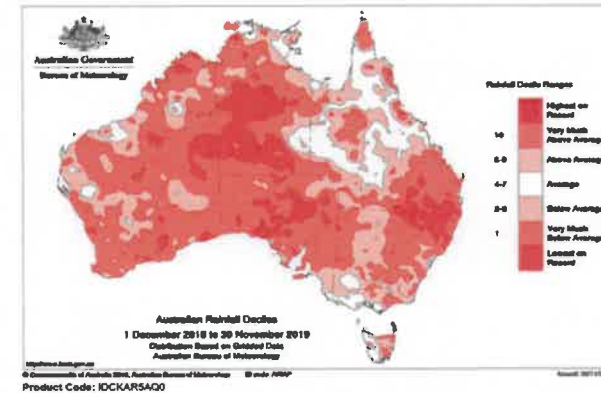


Annual rainfall deciles 2016 to 2023

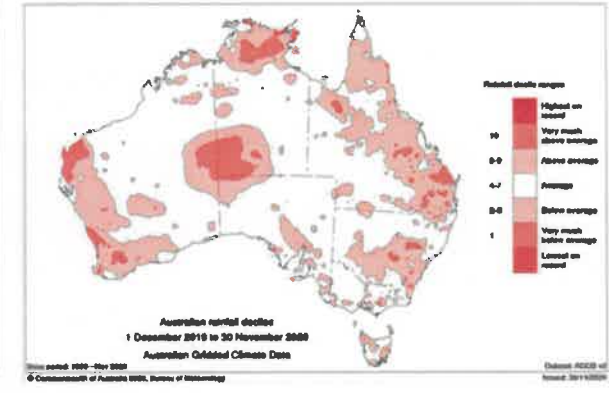
2018



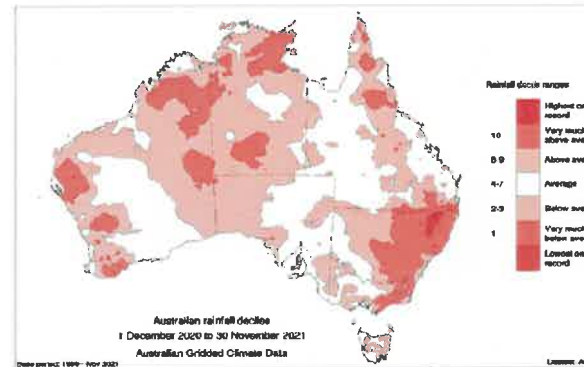
2019



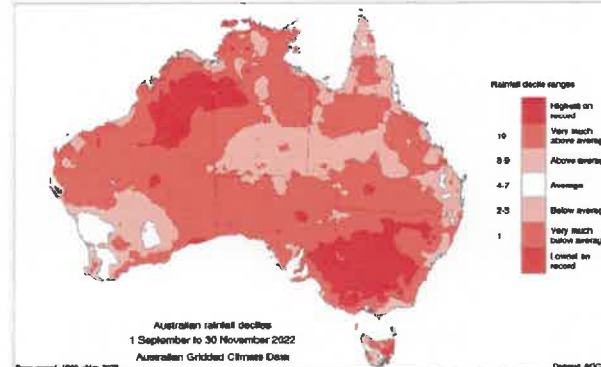
2020



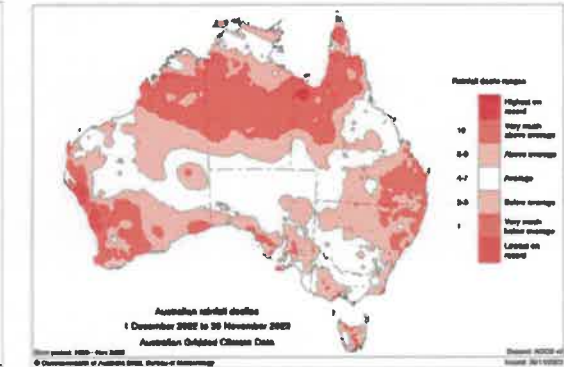
2021



2022



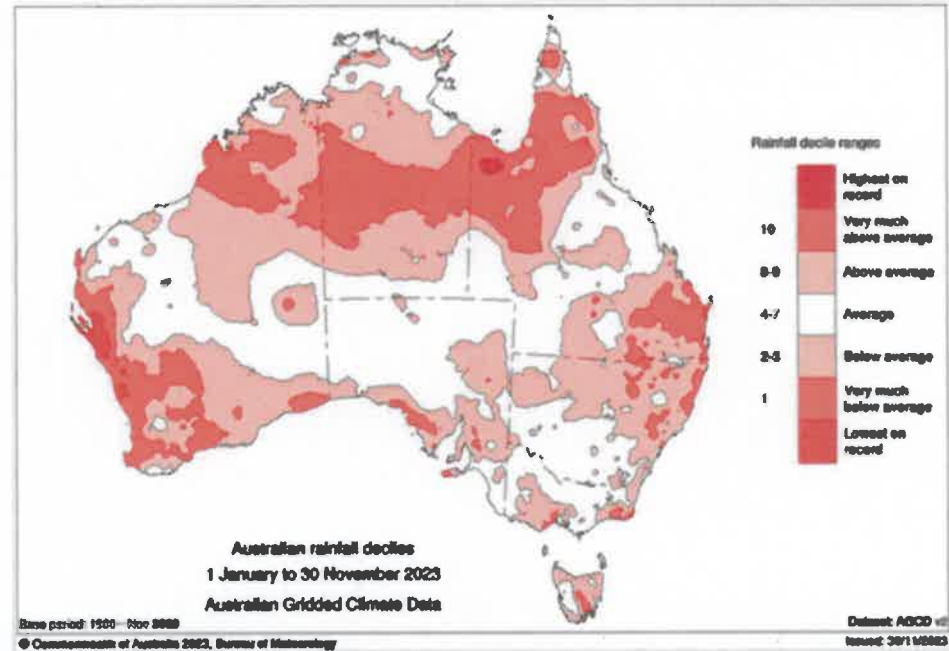
2023



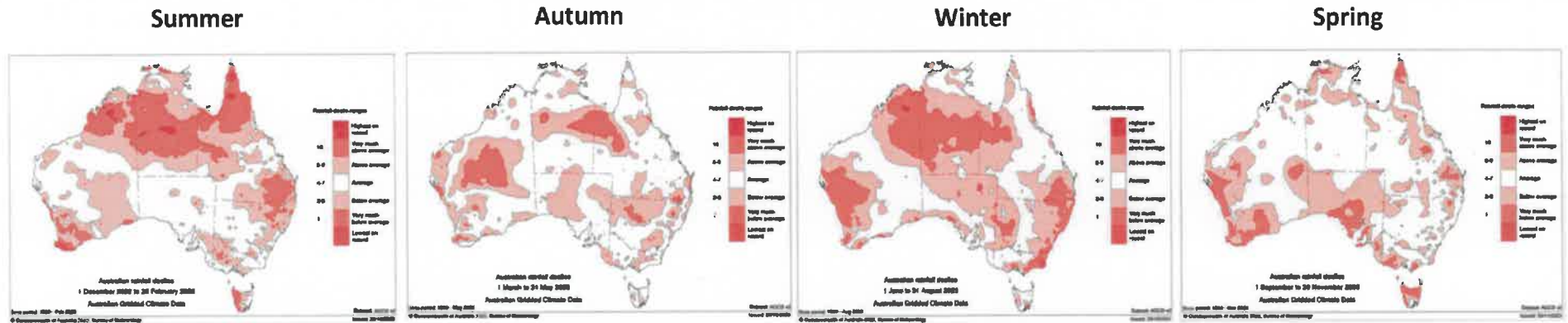
Source: www.bom.gov.au

Year-to-date rainfall 2023

- Following three years of La Niña (wetter) climatic conditions, Australia is experiencing a drying phase as El Niño and a positive Indian Ocean Dipole are underway.
- The northern half of Queensland received above to very much above rainfall over the last 12 months. Large parts of southern QLD and northern NSW and parts of Victoria and SE South Australia received below average rainfall.
- For Australia as a whole, October rainfall was 65% below the 1961–1990 average, the fifth driest October on record and the driest since 2002.
- After a very dry September and October, widespread storms in November lifted the total spring rainfall across parts of northern and eastern Australia.
- A small proportion (9.7%) of Queensland was in drought or drought affected (as of November 2023); in New South Wales, 12.6% of the state was in drought or drought affected. Reports weren't available for South Australia or Victoria, however, far southwest Victoria and far south-east South Australia were experiencing 4-month rainfall deficiencies.

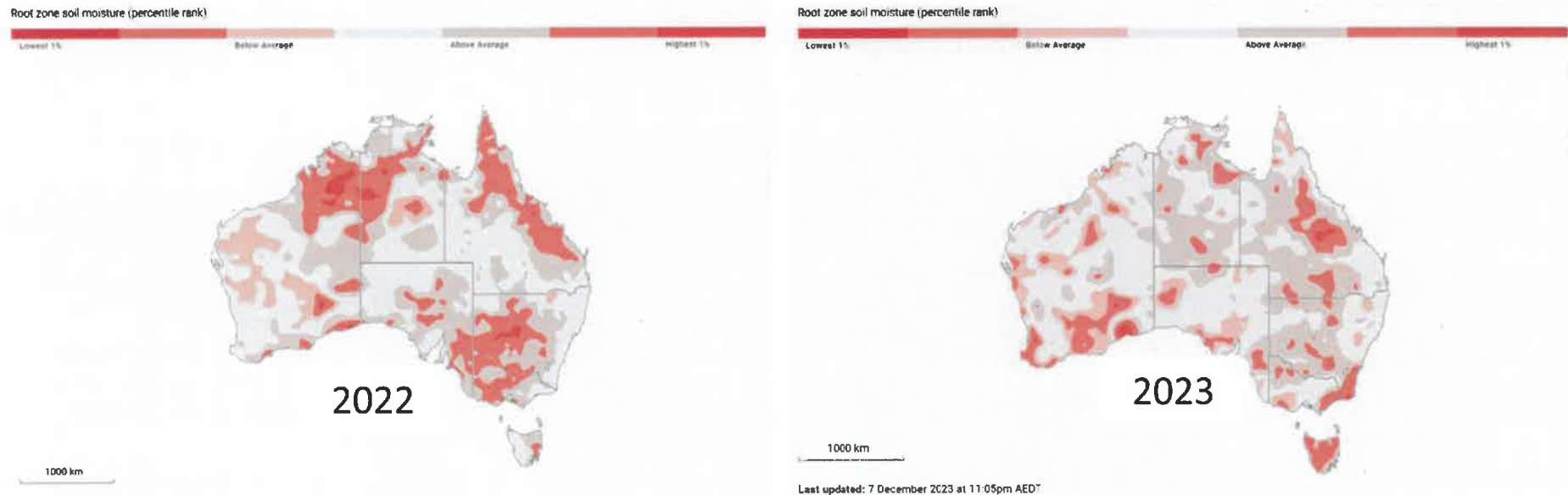


Rainfall through the seasons 2023



- **Summer:** In eastern Australia, northern Queensland received above to very much above average rainfall. Southern Queensland, northern New South Wales, western Victoria and south-east South Australia received below average to very much below average rainfall.
- **Autumn:** Northern New South Wales received below average rainfall. The Great Dividing Range from Victoria to southern Queensland received above average rainfall, as well as parts of central-western Queensland and coastal far-east South Australia and south-west Victoria.
- **Winter:** South-eastern Queensland, the eastern half of New South Wales and most of southern Victoria received below to very much below average rainfall. Western Queensland, western New South Wales and northern South Australia received above average rainfall.
- **Spring:** Generally, eastern Australia received average spring rainfall, but this was influenced by a wet November, following a dry September and October. Parts of New South Wales, Queensland and Victoria received above or below average rainfall.

Soil moisture – December 2023



- Root zone (0-100cm) soil moisture as at 7 December improved following a wet November for much of eastern Australia.
- This rectified the below average soil moisture caused by a dry August – October across most of eastern Australia.

Source: www.bom.gov.au



Habitat availability



Australian water storage levels

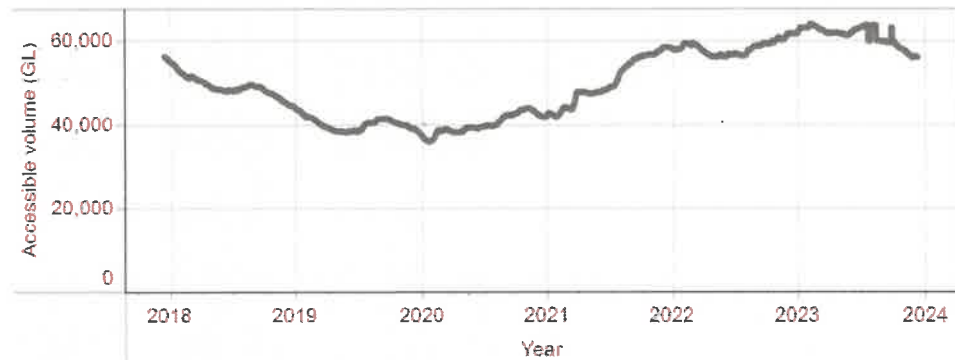
Water storage levels provide an indicator of the availability of waterbird habitat and waterflows through feeder systems.

Often impoundments and storages can trap water and prevent it from entering creeks, streams and wetlands, thereby reducing available habitat. This information must be considered in context, particularly during dry periods.

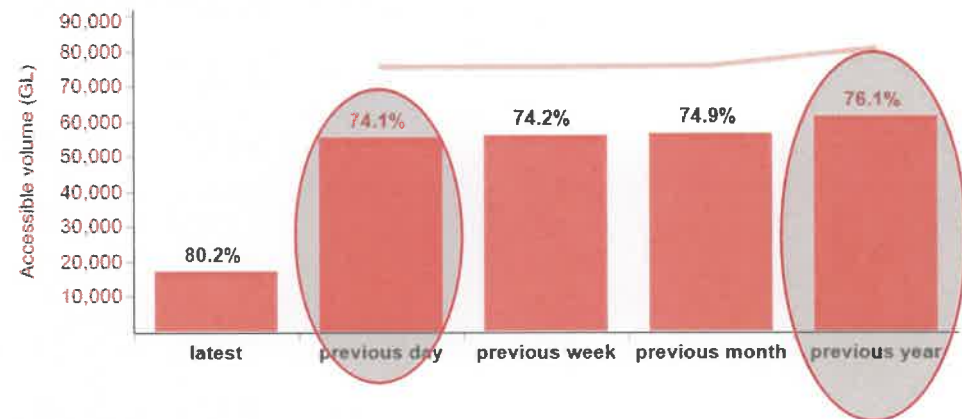
Deep storages generally provide poor habitat for game ducks.

- In 2023, Australia's water storages declined by 2% from the same time last year, from 76.1% to 74.1%.

Accessible volume - Australia



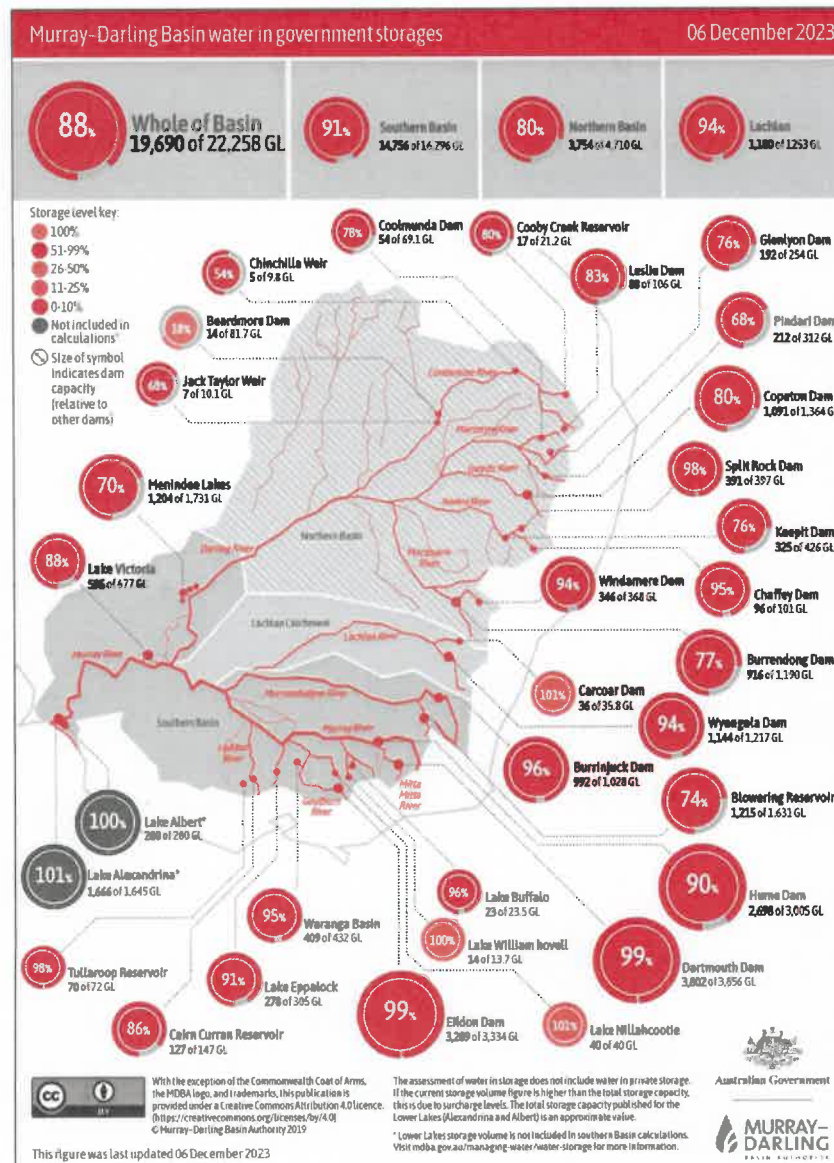
History - All



Australia	
Percentage full (%):	74.1
Number of storages:	303
Accessible volume (ML):	55,880,337
Accessible capacity (ML):	75,449,421
Change since last year (%):	-2.0
Reported date:	13 December 2023



Murray-Darling Basin water storage levels



The Murray-Darling Basin (MDB) is a critical area for waterfowl production and Australia's most developed river basin (240 dams storing 29,893 GL)

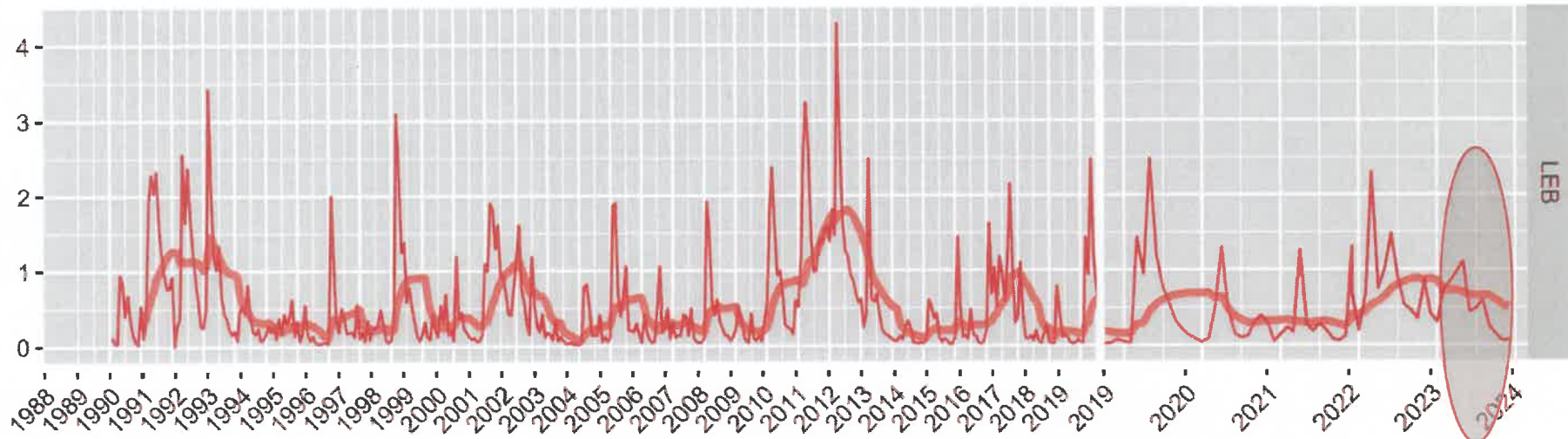
- Storage systems in the MDB are at 88% of capacity, which is 11% lower than at the same time last year (99%).
- Storage volumes in the northern basin are at 80%, down 23% from 103% in November last year.
- Storage volumes in the southern basin are at 91%, down from 98% in November last year.
- The Lachlan system is at 94%, down 3% from 97% last year.



Source: www.bom.gov.au

Lake Eyre Basin

- In 2022-23, northern Australia experienced its sixth wettest wet season since 1900.
- Significant rainfall events between October 2022 – April 2023 had a positive effect on the Lake Eyre Basin in the first six months of 2023, as water moved through the catchments. Lake Eyre partially filled, but has since dried.
- Some rivers and wetlands in the northern Lake Eyre Basin, including the Diamantina and Georgina rivers, retained water in deeper channels and pools after moderate flooding and supported large numbers of waterbirds



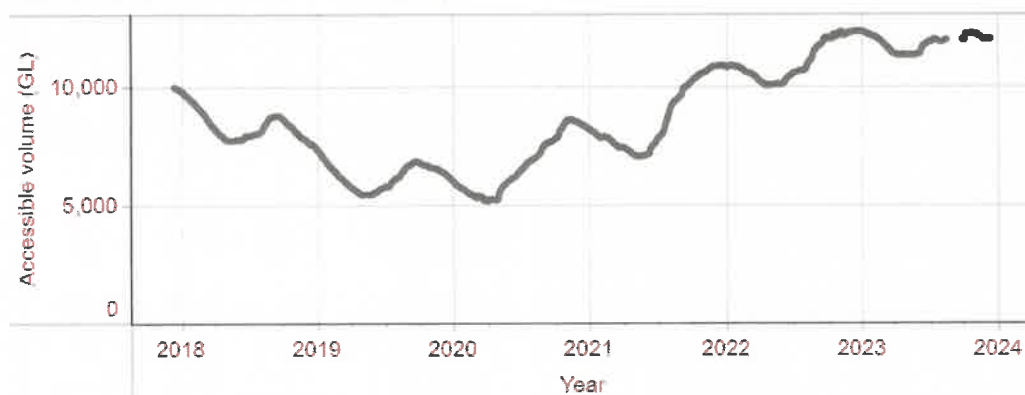
Percentage water surface area in the Lake Eyre Basin since 1990
Monthly values in blue. Last three years in red. Green line is 12 month rolling average

Source: Klaassen (2023)

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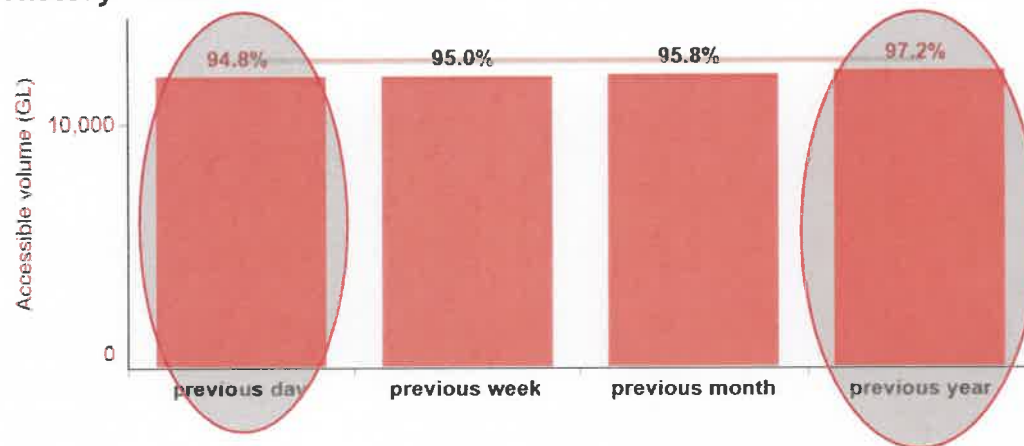
Victorian water storage levels

Accessible volume - Victoria



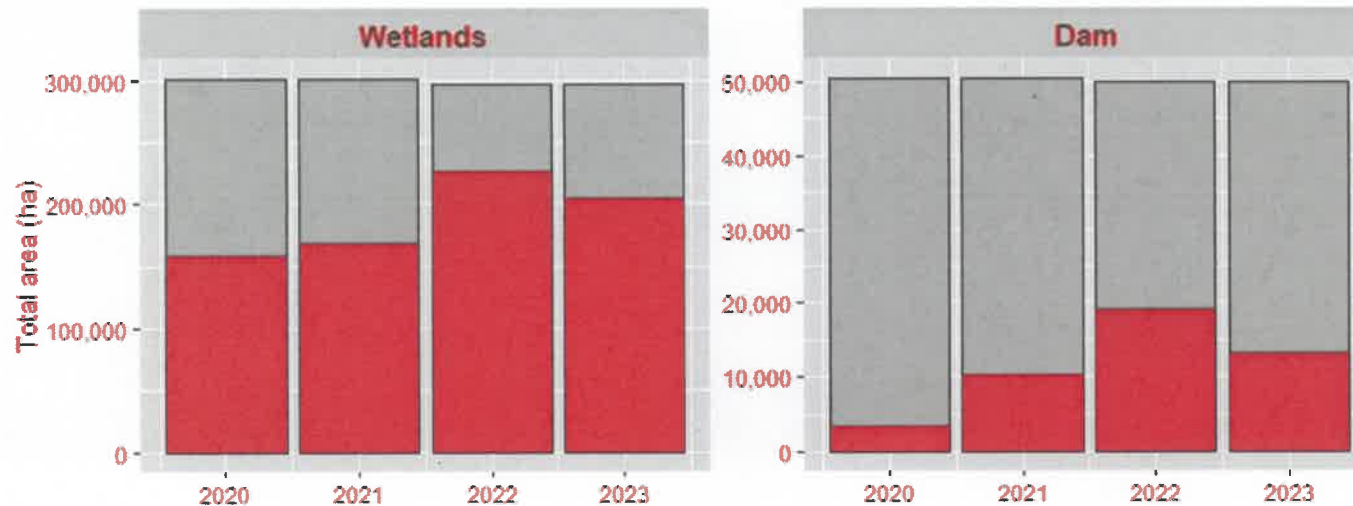
- The total (Melbourne and regional) Victorian water storage levels are currently at 94.8% compared to 97.2% last year.
- Storage levels have decreased by 2.4% from this time last year.

History - Victoria



Source: www.bom.gov.au

Victorian waterbody surface water estimate



- Victoria's annual ground and aerial game duck abundance survey commenced on 16 October and concluded on 6 November 2023.
- 865 randomly selected wetlands, dams, sewerage treatment ponds, rivers and streams were surveyed.
- Surface water availability was estimated from analysis of Landsat and Sentinel-2 satellite imagery using the most recent images obtained within the spring period (September – November).
- Surface water availability in 2023 declined slightly since 2022 for both wetlands and dams, but was still higher than in 2020 and 2021.

Eastern Australian Waterbird Survey (EAWS)

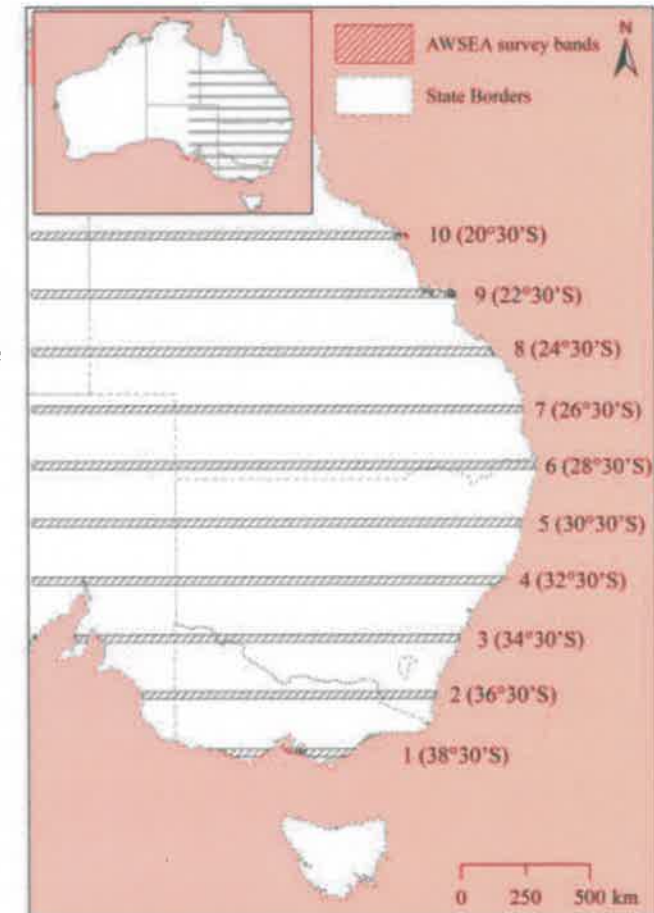
The EAWS monitors changes in the abundance and distribution indices of 50 waterbird species in eastern Australia. It also tracks changes in waterbird habitat over time.

The EAWS was designed by Dr Graeme Caughley, CSIRO, to monitor game duck populations. It has been conducted annually in October since 1983. Waterbirds are counted from the air across ten aerial survey bands (each 30 km in width), every two degrees of latitude, crossing eastern Australia to monitor all wetlands over 1ha in size.

The EAWS provides:

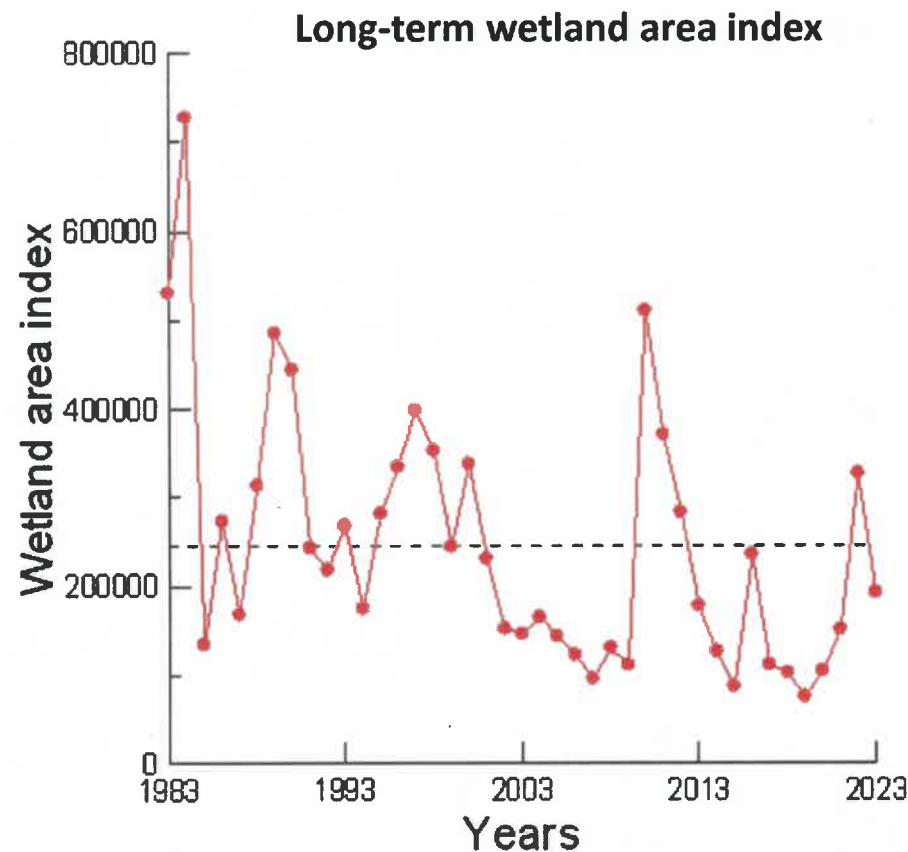
- an index (not total count) of abundance of waterbirds, including game ducks
- information on the distribution of waterbird and game duck populations along survey bands
- the extent and distribution of habitat along survey bands, and
- information on waterbird breeding.

The information is valuable for examining waterbird trends on over one-third of continental Australia and over a long period.



EAWS wetland area index

The wetland area index is a measure of wetland availability across all 10 EAWS transects (bands). This gives an indication of the extent and distribution of habitat available for waterbirds.



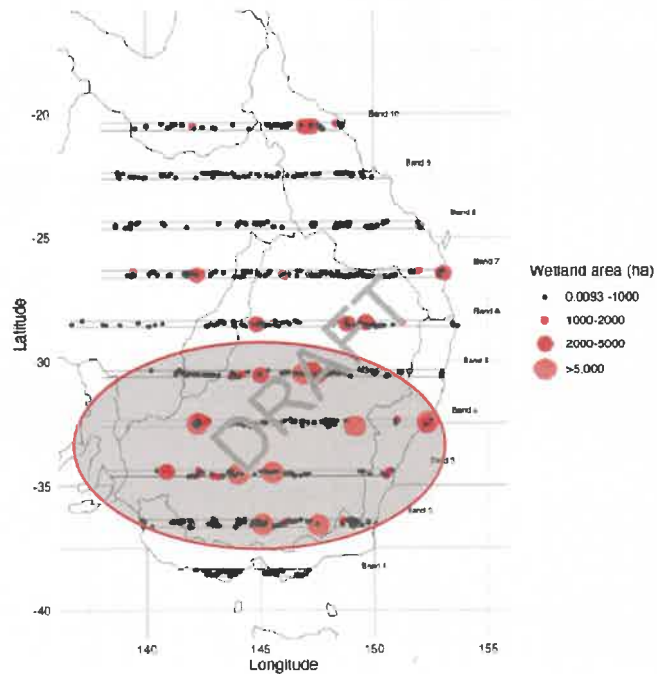
- The wetland area index (192,083 ha) for 2023 decreased considerably from the previous flood year, to 78% of the long-term average.
- The 2023 wetland area index ranked 22nd from the 41 surveys.

Source: Porter *et al.* (2023)

EAWS Wetland distribution 2022 and 2023

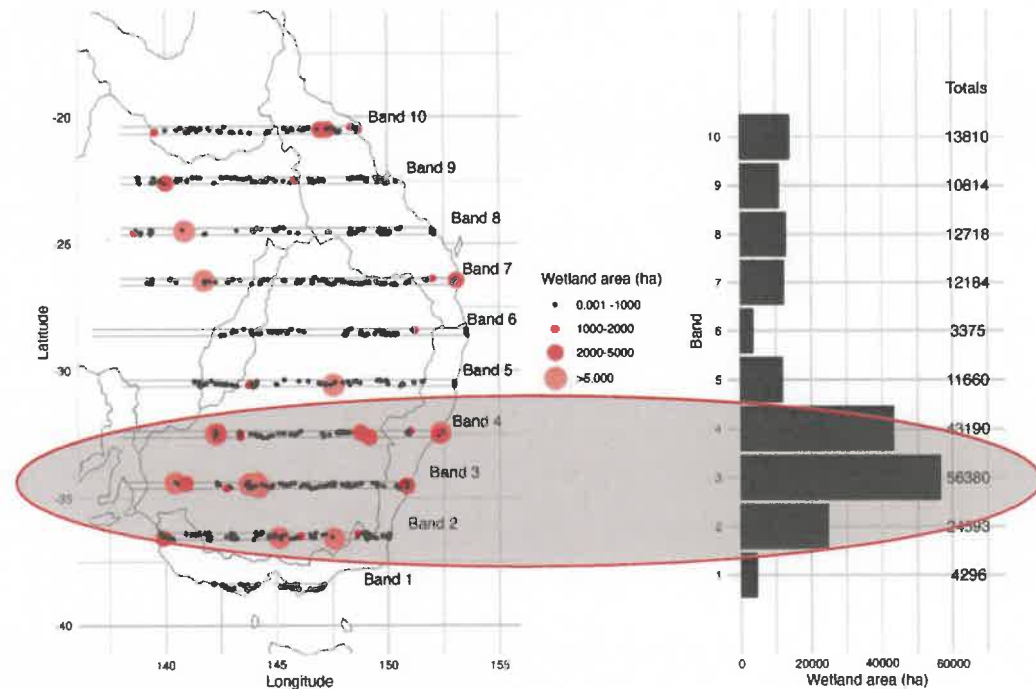
2022

2022 Wetland area index – 326,769 ha



2023

2023 Wetland area index – 192,083 ha

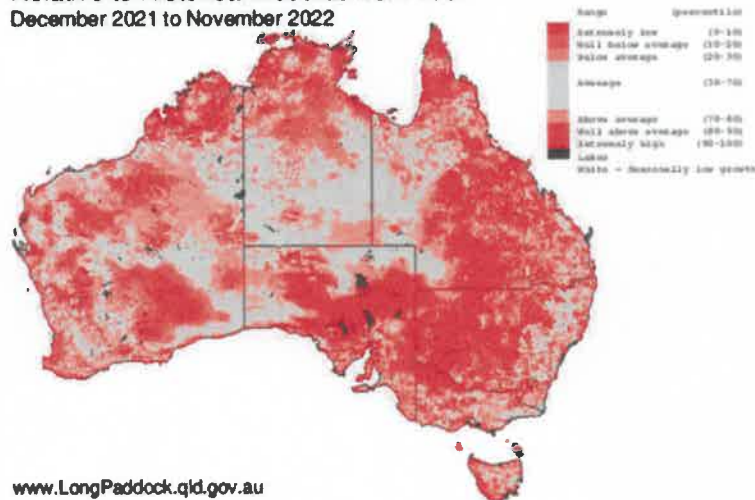


- Bands 2, 3 and 4, spanning northern Victoria to central New South Wales, contained the largest areas of waterbird habitat – comprising 64% of the inundated wetland area sampled.
- In the previous year, bands 2-5 contained the highest proportion of habitat.

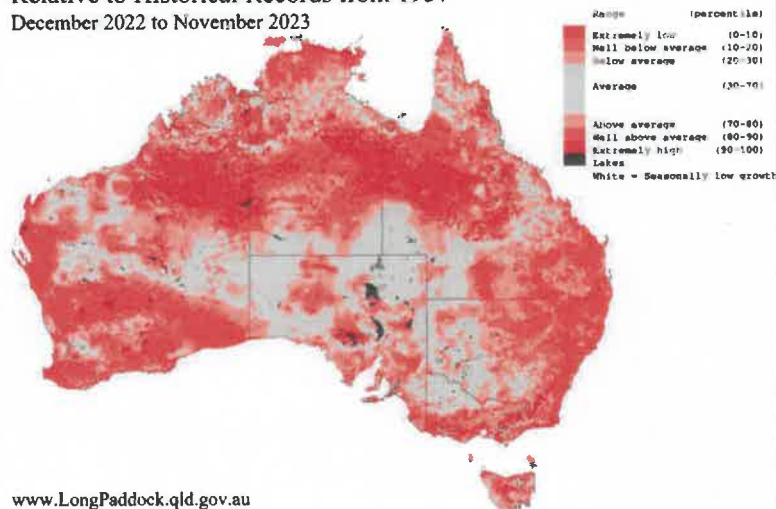
Source: Porter *et al.* (2023)

Pasture conditions

Pasture Growth Percentile
Relative to Historical Records from 1957
December 2021 to November 2022



Pasture Growth Percentile
Relative to Historical Records from 1957
December 2022 to November 2023



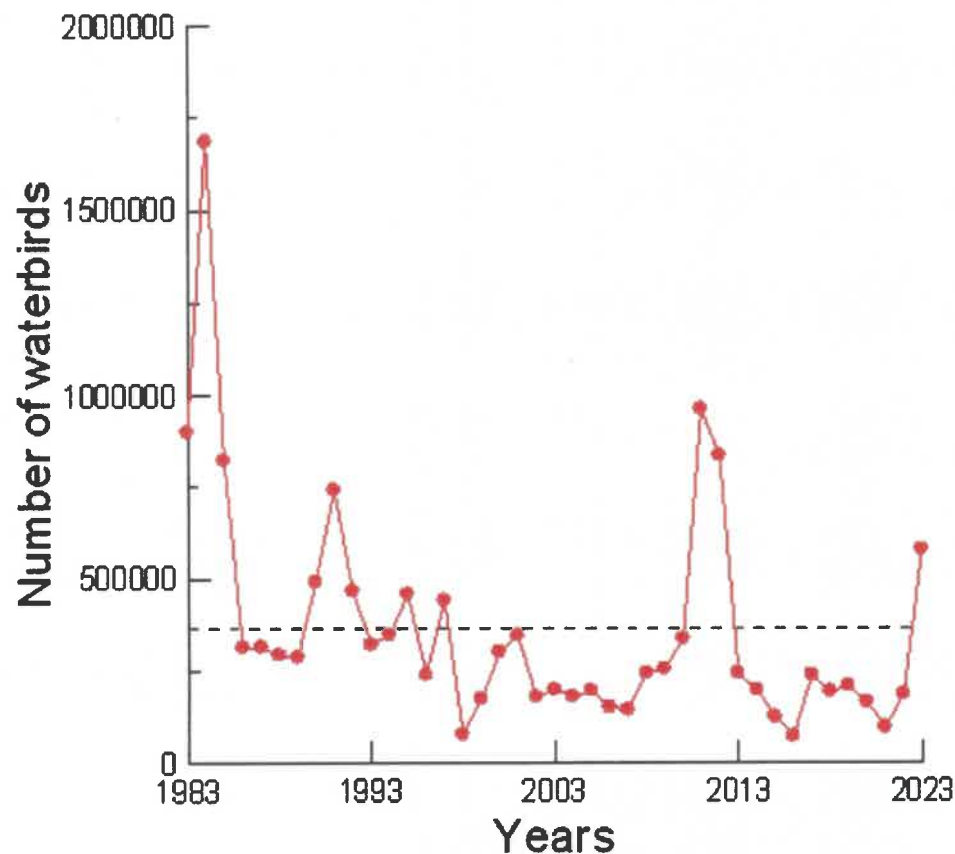
Pasture condition is a coarse indicator of potential feeding habitat for grazing species, such as Wood Duck and Mountain Duck, and nesting habitat for ground-nesting game ducks.

- Rainfall deficiencies have resulted in a reduction in pasture growth in 2023.
- Pasture growth has decreased to below average or more in southern Queensland, northern and eastern New South Wales, south-western Victoria and parts of south-eastern South Australia.
- Pasture growth in central Queensland was above average.



Population indices of abundance,
distribution and breeding

EAWS index of waterbird abundance (all waterbirds)

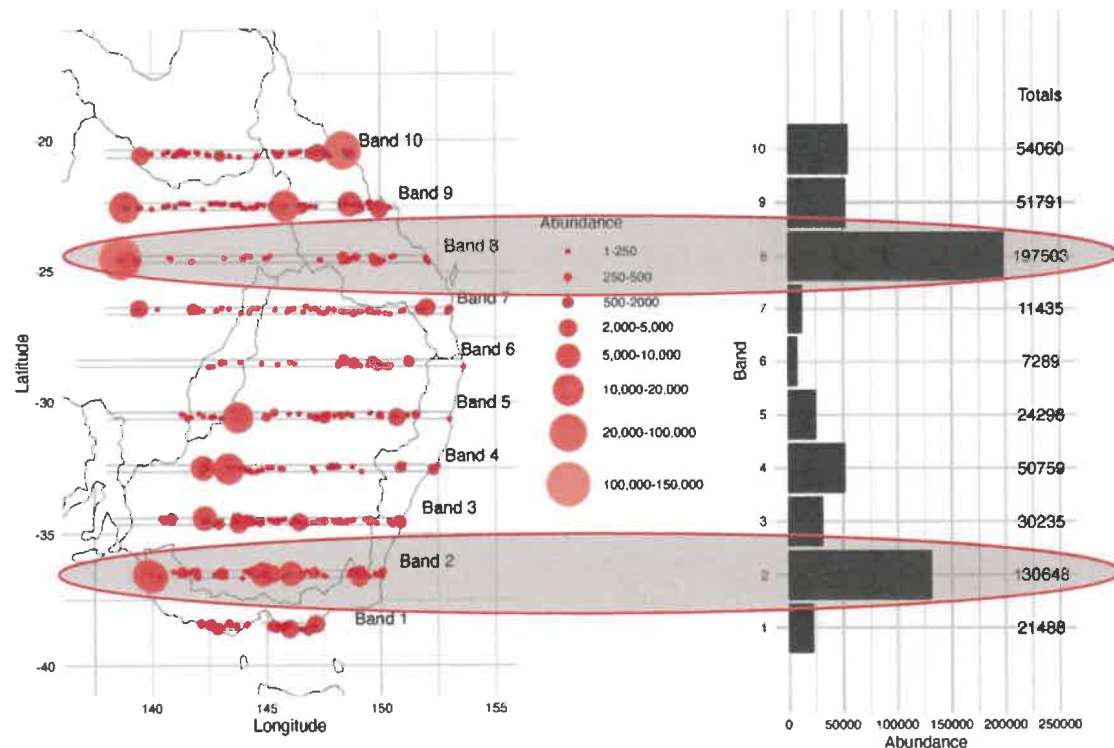


Up to 50 waterbirds species are surveyed in October each year and includes all Victorian game duck species and non-game species such as swans, Freckled Duck, ibis, coots etc.

- Total waterbird abundance in 2023 (n=579,641) increased significantly from 2022 to well above the long-term average and was the 7th highest recorded in 41 years.
- The abundance index is not a total count. It provides information on the trends in waterbird abundance along the survey bands.

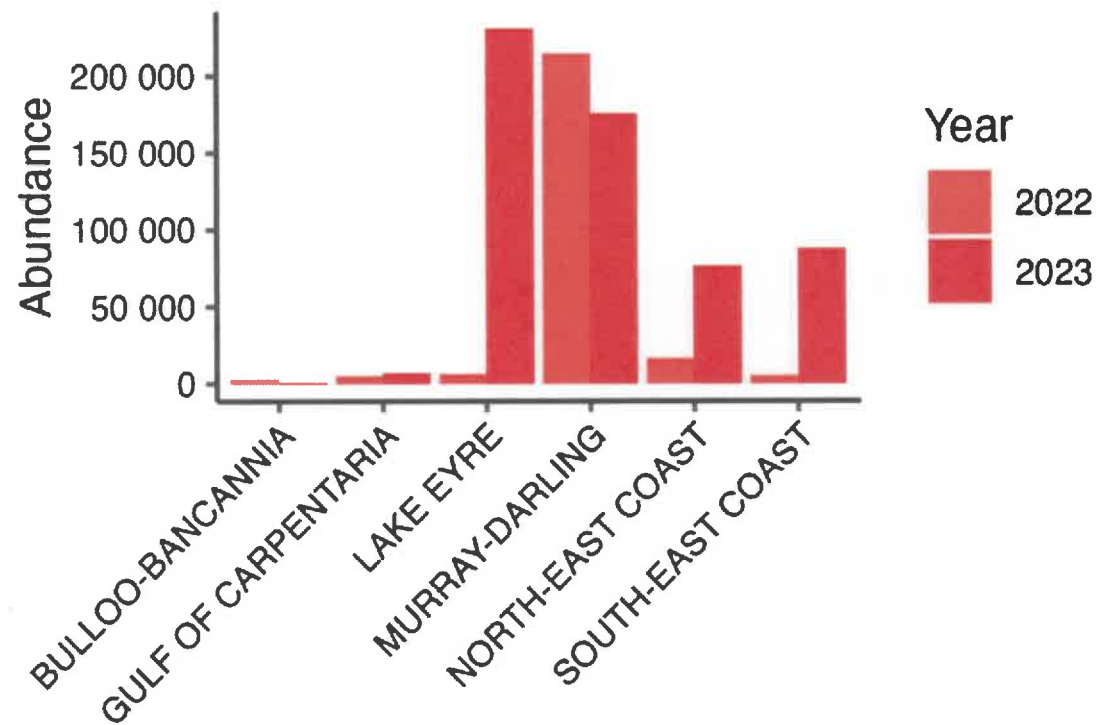
Source: Porter *et al.* (2023)

EAWS Distribution of waterbirds



- The highest abundance of birds was found in bands 2 and 8.
- 72% of total abundance was distributed across 30 wetlands, making them less spatially concentrated and more evenly spread than the previous year.
- Two Band 8 wetlands (Lakes Torquinnie and Mumbleberry) supported more than 180,000 waterbirds representing 31% of the total abundance.
- Around 40% of surveyed wetlands supported no waterbirds (including wetlands that were dry).

EAWS waterbird distribution cont..

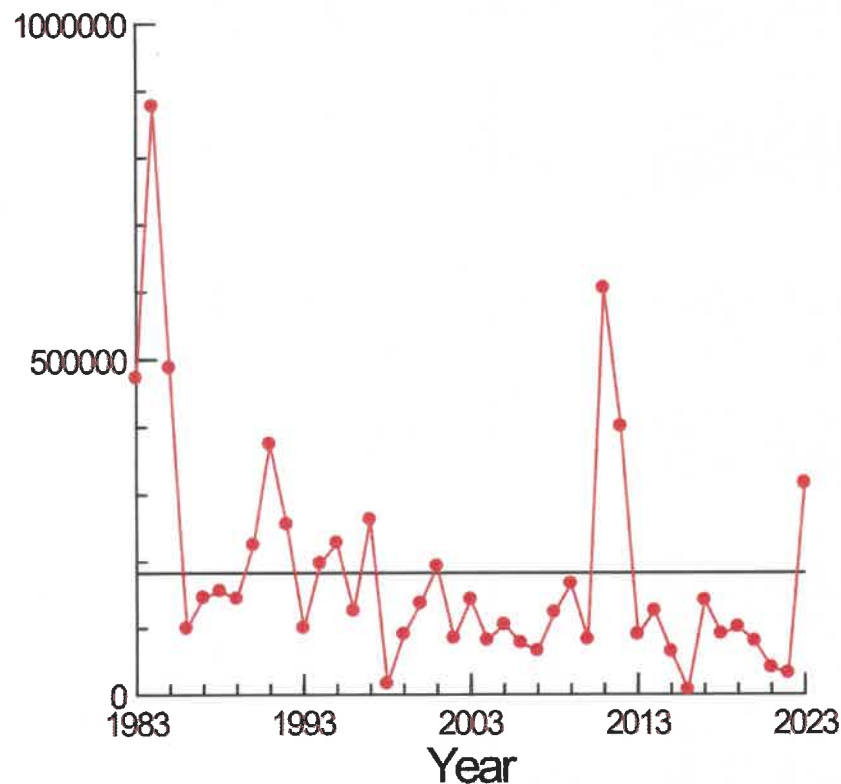


- Waterbird abundance increased significantly in the Lake Eyre Basin from the previous year and declined in the Murray-Darling Basin.
- Abundance also increased on the north-east and south-east coasts.

Source: Porter *et al.* (2023)

EAWS game duck abundance index

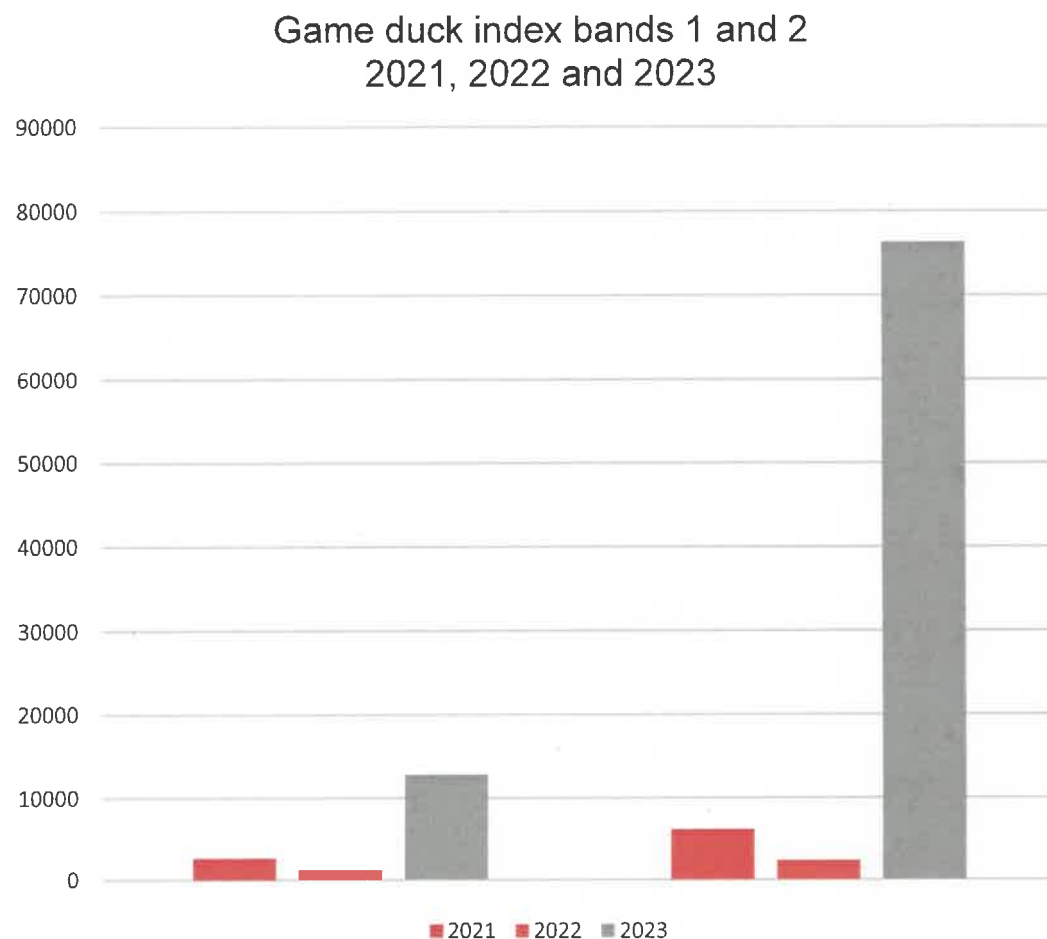
This index provides information on game ducks only.



Source: Porter *et al.* (2023)

- The eastern Australian game duck abundance index increased by almost seven-fold from 2022 (48,748 vs 337,081).
- The 2023 game duck abundance index has increased from the 3rd lowest recorded in 40 years to the 7th highest in 41 years and is approximately 60% above the long-term average.
- Most game duck species had abundances well above long-term averages, in some cases by an order of magnitude.
- Chestnut Teal increased sharply from the previous year to their highest abundance since 1991. Pink-eared duck recorded their second highest abundance in 41 years. Australian Shelduck abundance declined in 2022.
- Five out of the eight game duck species show long-term declines in abundance believed to be in response to a reduction in habitat quantity and quality.

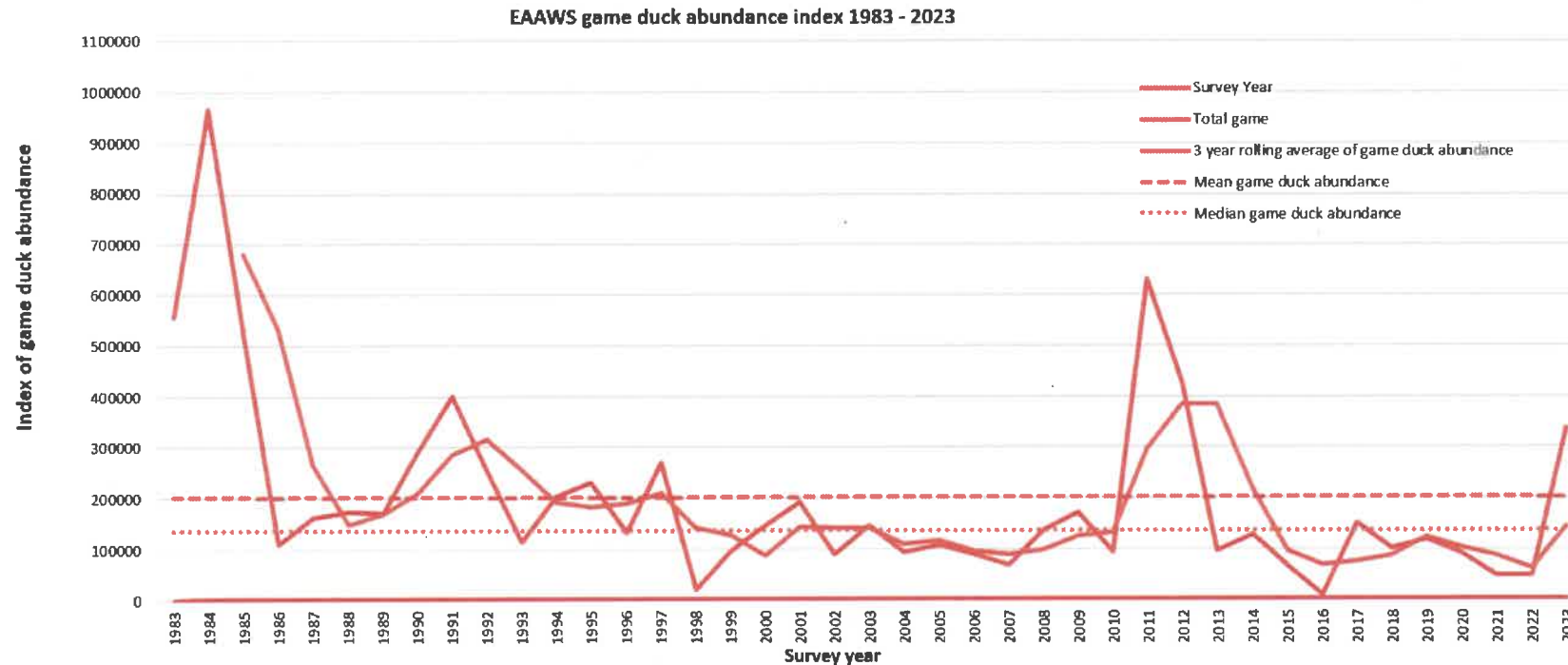
EAWS game duck abundance index bands 1 and 2 (Victoria)



Source: Porter *et al.* (2023)

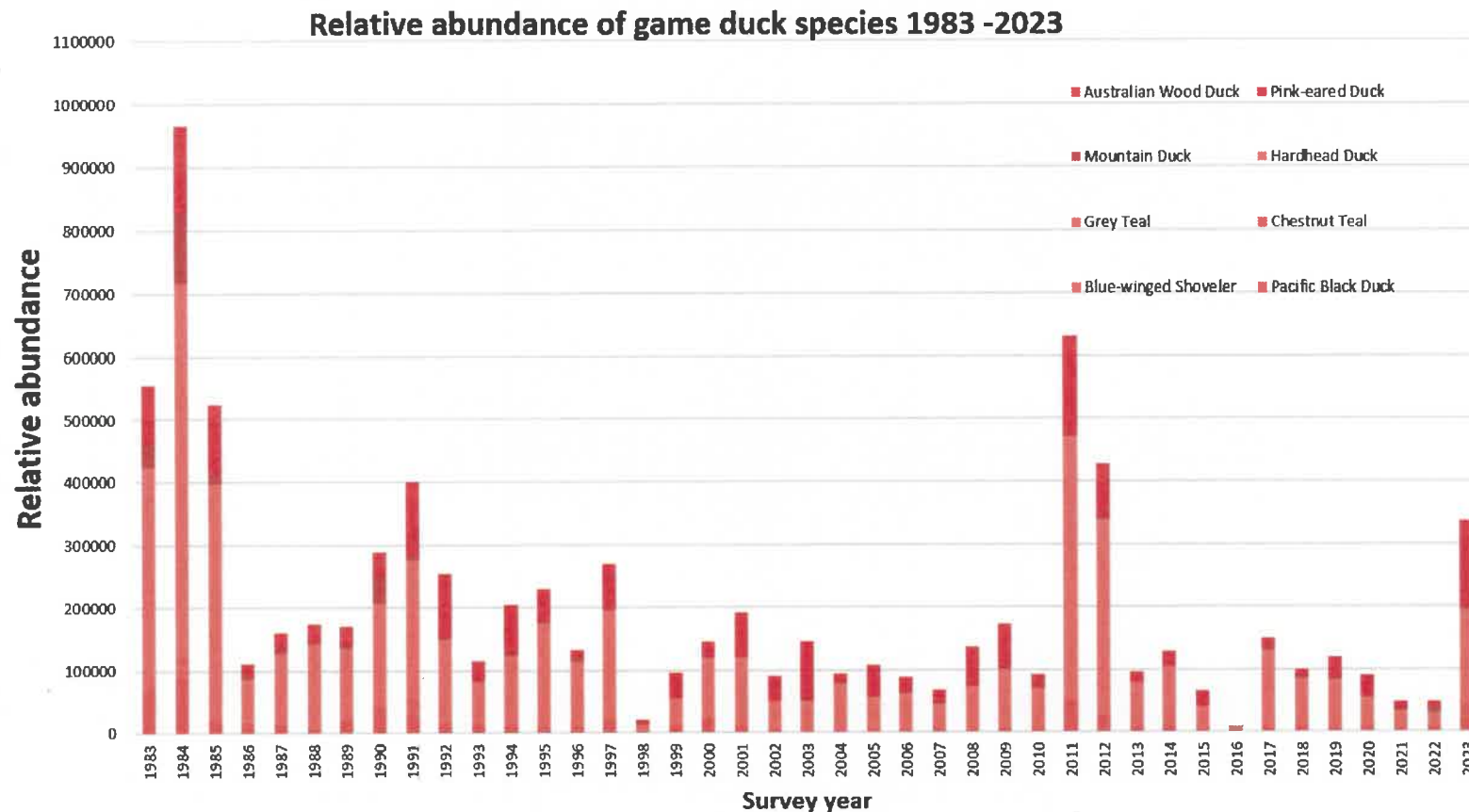
- Bands 1 and 2 cover parts of Victoria. Band 1 covers parts of southern coastal Victoria and band 2 covers parts of northern Victoria.
- Game duck abundance in bands 1 and 2 increased significantly in 2023 from the previous two years.
- The 2023 abundance index was almost 25 times higher than in bands 1 and 2 in 2022.
- This was most likely in response to improved habitat conditions throughout eastern Australia since 2020.

EAWS game duck abundance index over time



- This graph includes abundance index data (red line) and the 3-year rolling (or moving) average (green line). A rolling average is used to get an overall trend in a data set.
- The long-term average (mean) and median abundance levels are also included. The median is the mid-value and can be more suitable than the average when outliers are present.
- The 2023 EAWS game duck abundance index was above both the long-term mean and the median.
- Data must be considered in context with bird distribution, habitat availability and distribution and climatic forecasts.

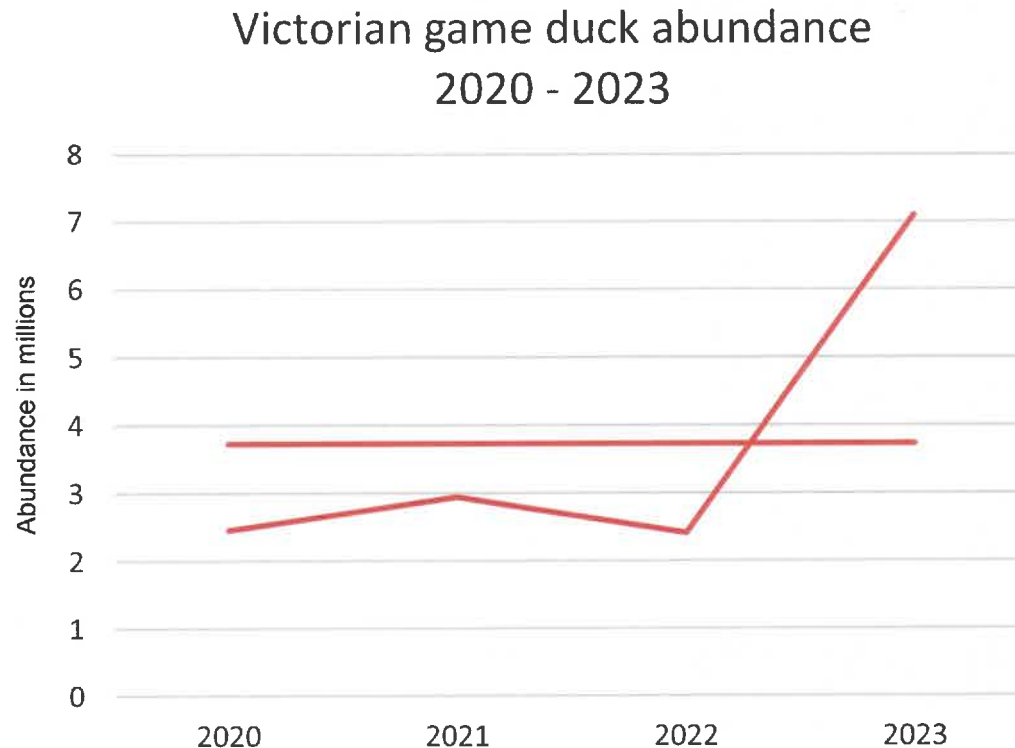
EAWS relative abundance of game duck species 1983-2023



The percentage of game ducks detected in 2023 EAWS were:

- Black Duck 7% (18%), Grey Teal 40% (40%), Wood Duck 7% (26%), Pink-eared Duck 35% (2%), Hardhead 4% (4%), Mountain Duck <1% (9%), Chestnut Teal 6% (<1%) and Blue-winged Shoveler <1% (1%). Figures in parentheses are from 2022.

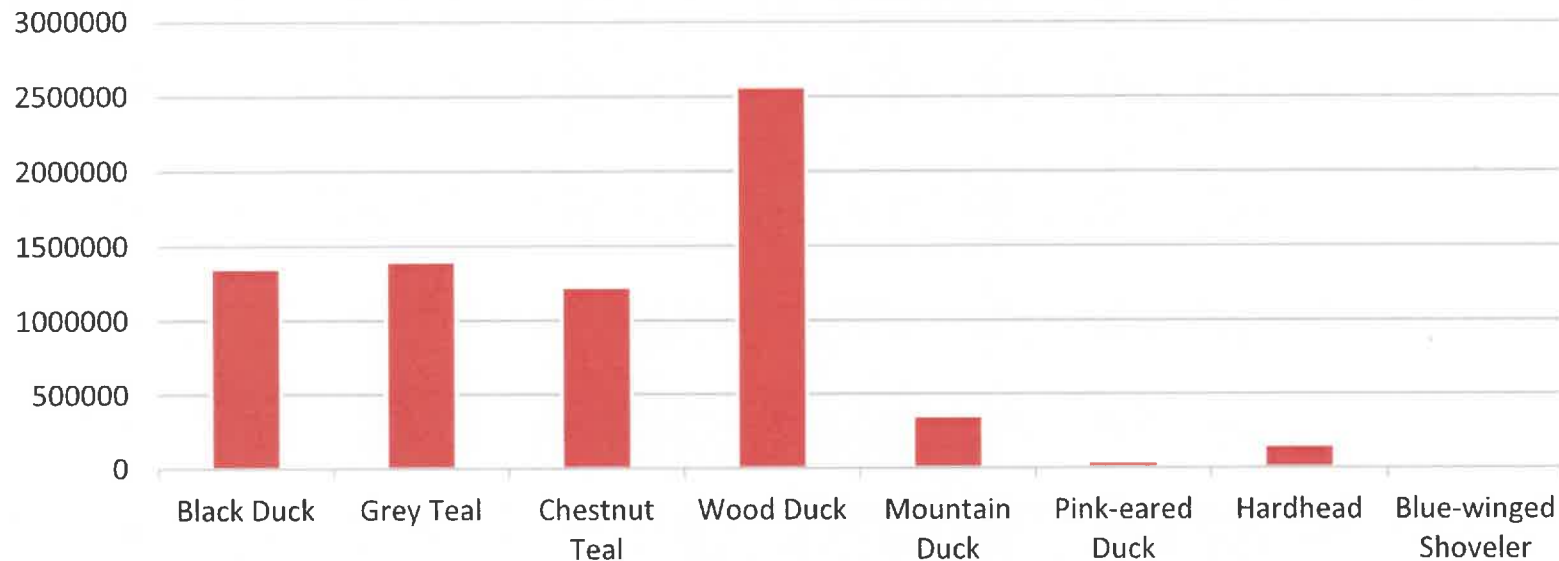
Victorian game duck abundance estimates



- Victoria's annual ground and aerial game duck abundance survey commenced on 16 October and concluded on 6 November 2023.
 - 865 randomly selected wetlands, dams, sewerage treatment ponds, rivers and streams were surveyed.
 - The total statewide absolute abundance of game ducks increased significantly from the previous year, most likely driven by the extensive flooding and presence of surface water driving breeding activity during 2022.
-
- The total estimated abundance of game duck species in Victoria in 2023 was 7.1 million birds, an almost three-fold increase on the previous year (2.41 million) and almost double the four-year average (3.7 million).

Victorian game duck abundance estimates cont...

Absolute Victorian game duck abundance by species



- Wood Duck were the most numerous game species in Victoria (~2.6 million), followed by Pacific Black Duck (~1.4 million) and Grey and Chestnut Teal (~1.4 and 1.2 million, respectively).
- These four species constituted approximately 92% of the total estimated Victorian game duck population.

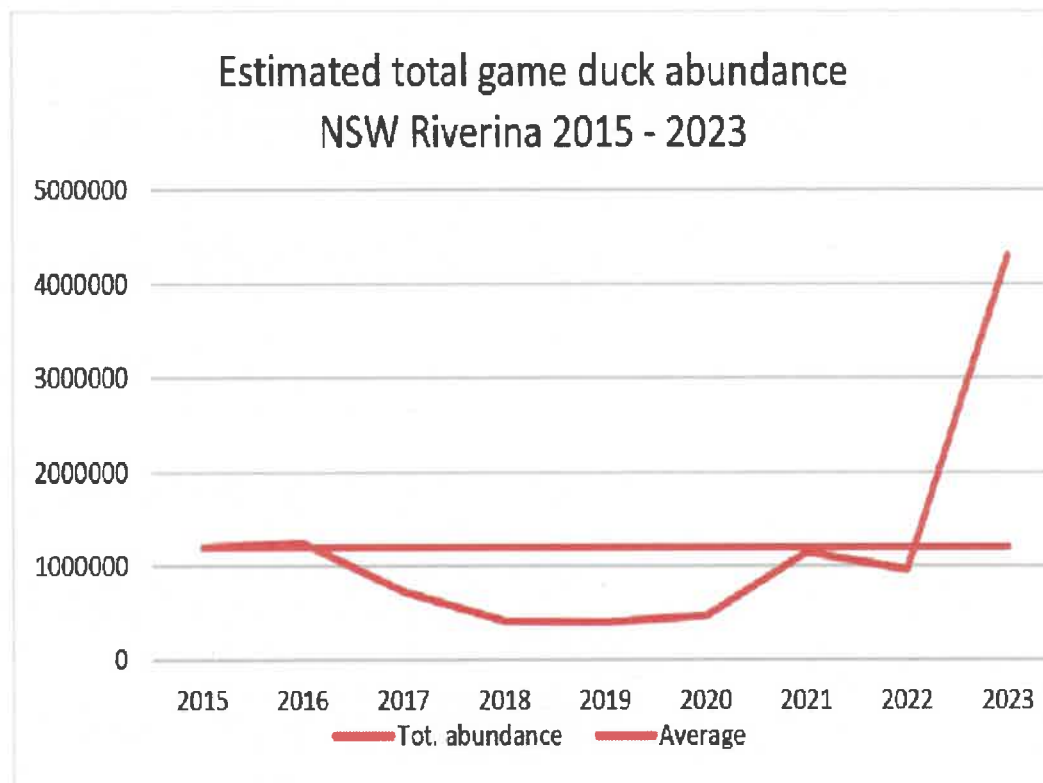
Note: Total estimated abundance of Blue-winged Shoveler was 11,600 and Pink-eared Duck was 46,300

Source: Ramsey and Fanson (2023)

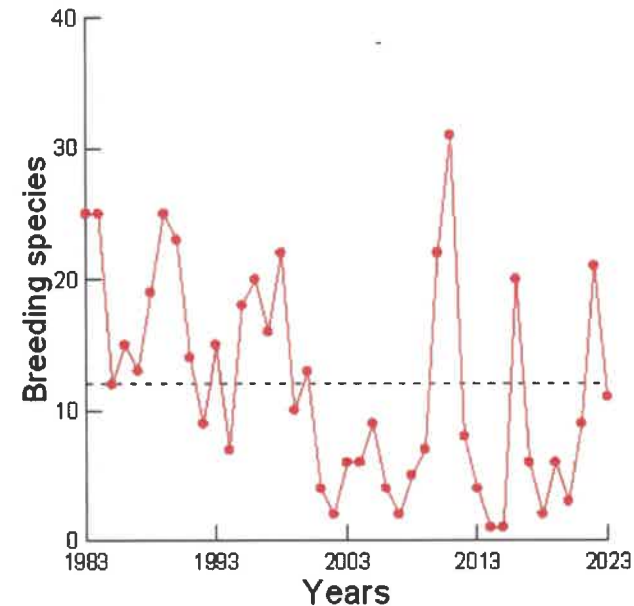
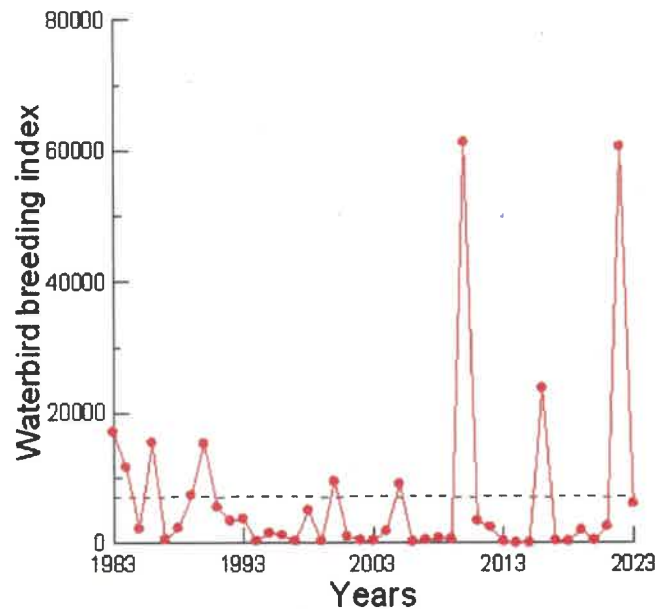
NSW Riverina waterfowl abundance surveys

- Aerial counts of randomly selected small, medium, large and extra-large dams, one wetland and channel segments were conducted throughout the NSW Riverina in May-June 2023 to determine absolute waterfowl abundance to set annual crop damage mitigation destruction quotas.
- Game duck* numbers increased significantly from the previous year by almost 4.5 times from 963,902 to 4.295 million birds.
- 2023 abundance was 3.5 times greater than the long-term average of 1.21 million.

*Includes Plumed Whistling Duck, which is not a Victorian game duck species

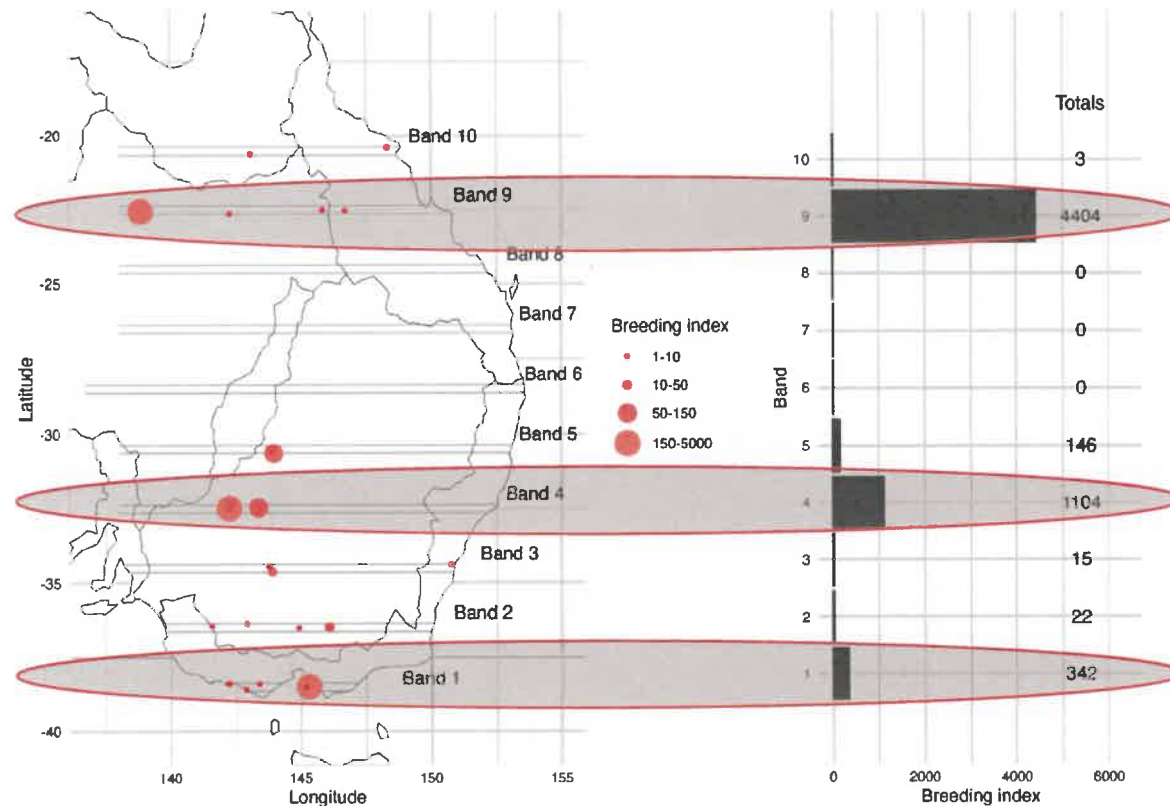


EAWS Waterbird breeding (all species)



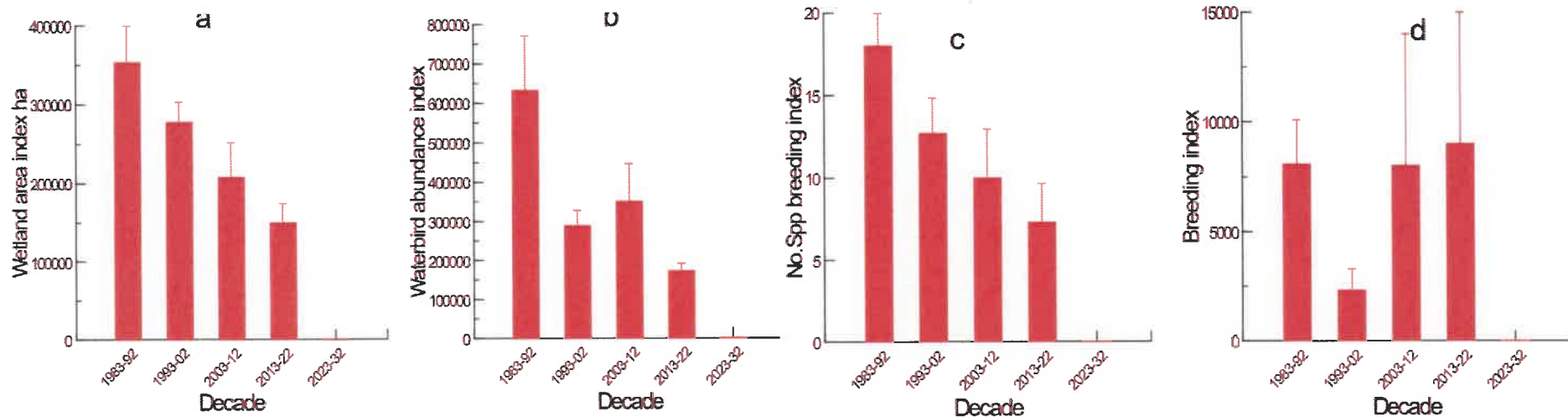
- EAWS Breeding species' richness and breeding abundance indices decreased considerably compared to the previous year (second highest recorded), with abundance falling by an order of magnitude to slightly below the long-term average.
- EAWS Breeding species' richness index also decreased to slightly below the average, with 11 species recorded breeding.
- Five species comprised 97% of the total breeding recorded (Little Black Cormorant, Darter, Nankeen Night Heron, Australian White Ibis and Pied Cormorant).
- Little game duck breeding was recorded but this is not a reliable indicator of the extent of breeding.

EAWS Waterbird breeding (all species)



- Breeding was concentrated in one wetland (73% of total) in Survey Band 9 and comprised mostly Little Black Cormorants and Nankeen Night Herons.
- Band 4 and, to a lesser degree, Band 1 also recorded some breeding.

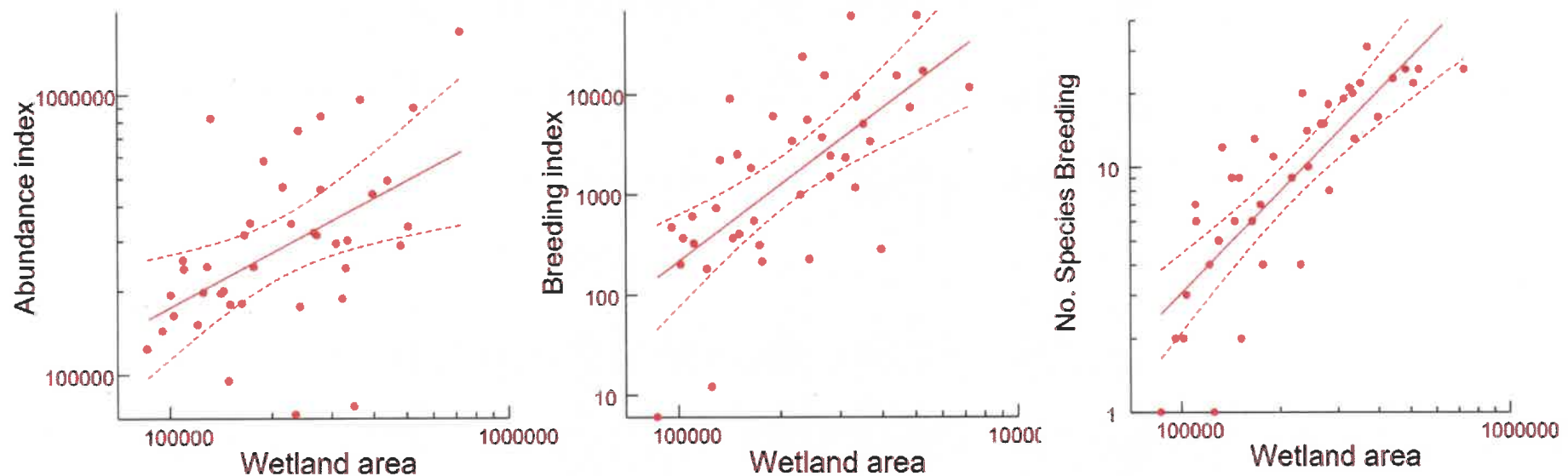
EAWS indices over time



Decadal changes in indices for total abundance, wetland area, number of breeding species and breeding in the EAWS 1983 - 2022

- Major EAWS indices for waterbirds (wetland area index, total abundance index, number of species breeding) continue to show significant declines over time.

EAWS indices relationship with wetland area



- For eastern Australia, overall waterbird abundance, breeding index and breeding species richness are positively related to habitat availability (wetland area index).
- Declines in wetland area are likely to result in declines in waterbird abundance, breeding and breeding species richness.

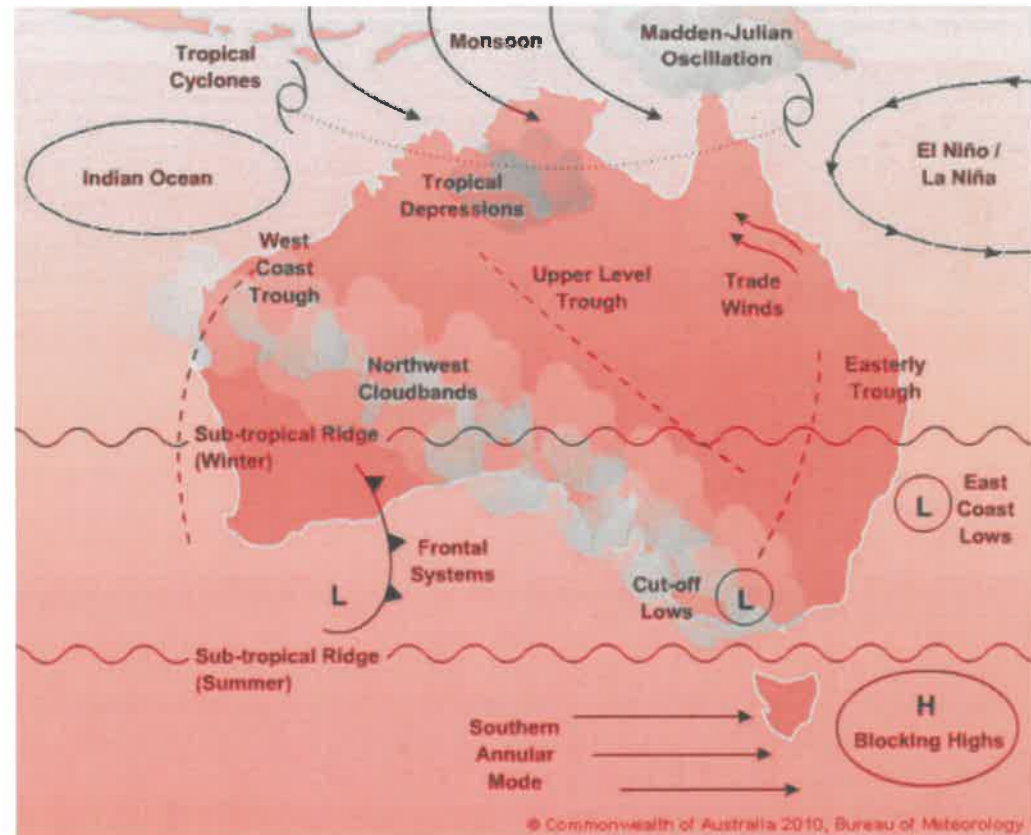


Climate predictions – future conditions



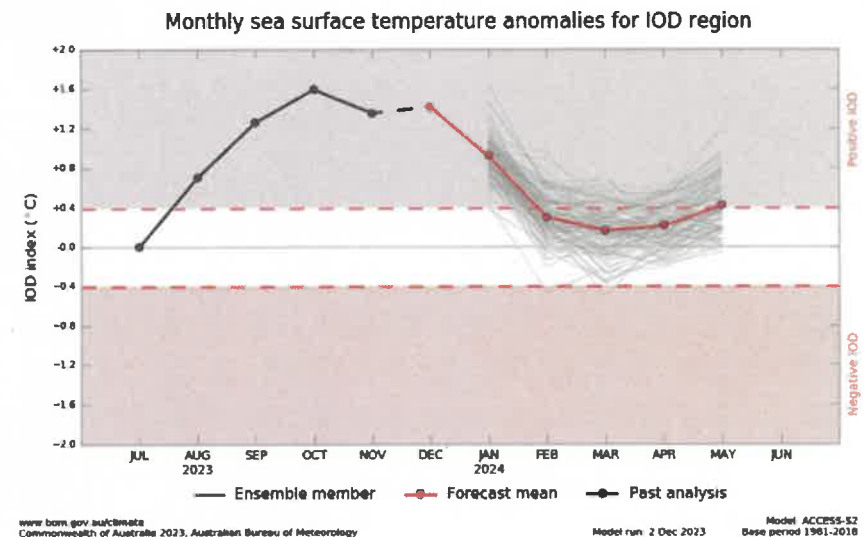
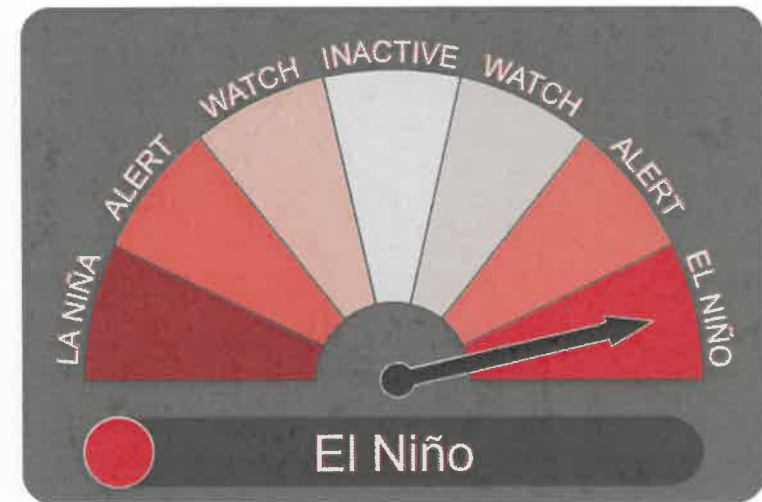
Current climate drivers

- Australia's climate can vary greatly from one year to the next.
- A number of drivers can influence the Australian climate. Influences will have varying levels of impact in different regions at different times of year.
- Current influences on Australia's climate include:
 - El Niño
 - Positive Indian Ocean dipole
- These influences typically result in drier than average seasons.



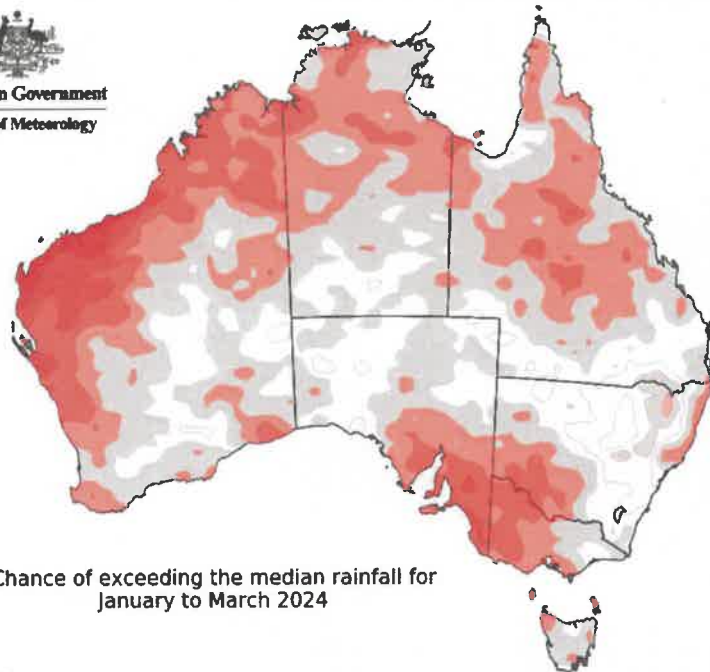
El Niño and Indian Ocean Dipole

- El Niño continues in the tropical Pacific. Indicators of the El Niño–Southern Oscillation (ENSO), including tropical Pacific sea surface temperatures (SSTs), cloud, wind, and pressure patterns are consistent with El Niño conditions. Climate model forecasts indicate some further warming of central to eastern Pacific SSTs is possible, with SSTs remaining above El Niño thresholds early into the second quarter of 2024.
- The positive Indian Ocean Dipole (IOD) event continues. IOD events typically breakdown as the monsoon trough shifts south into the southern hemisphere, typically at the end of spring. Given the current strength of this event and the active El Niño, the breakdown this year is likely to be slightly later than usual. All international climate models surveyed by BOM suggest the positive IOD event is likely to ease in December.



January – March 2023 predicted rainfall

January – March rainfall prediction can be used to indicate the potential impact on habitat for the forthcoming season.



Chance of exceeding the median rainfall for January to March 2024

Model ACCESS-S2
Base period: 1981-2018

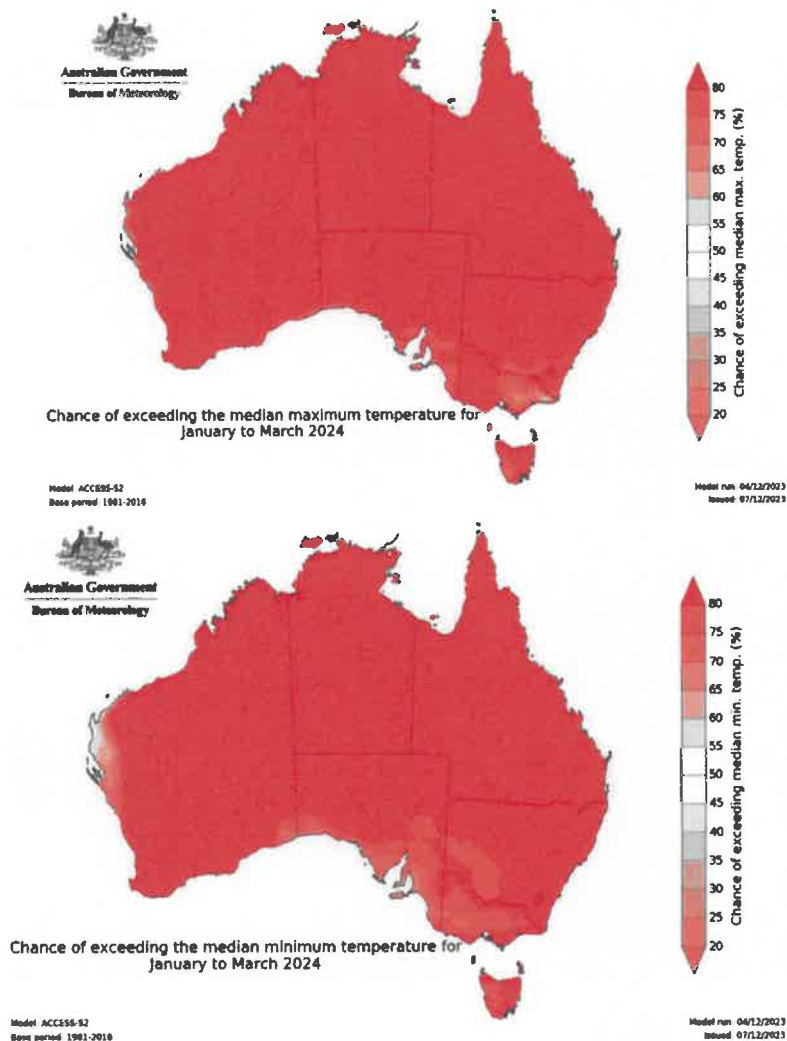
Model run: 04/12/2023
Issued: 07/12/2023

- January to March rainfall is likely to be below average across much of the north, west and south-east of Australia.
- The long-range forecast is influenced by several factors, including the active El Niño and easing positive Indian Ocean Dipole events, and record warm oceans globally.



Source: www.bom.gov.au

January – March 2023 temperature predictions

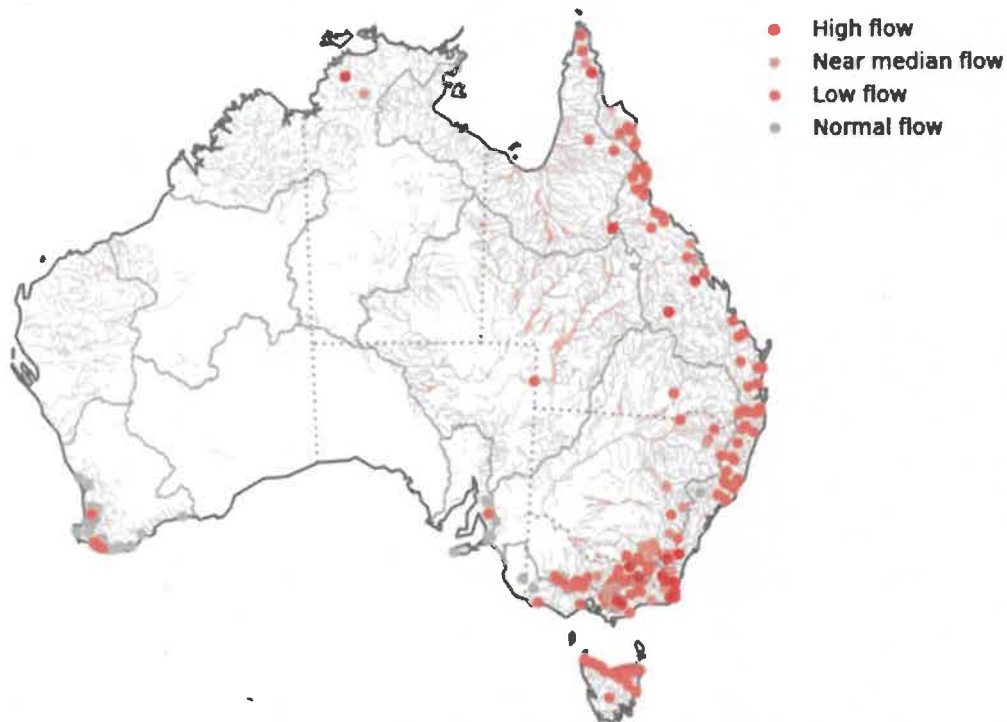


- For January to March, above median maximum temperatures are very likely (greater than 80% chance) for almost all of Australia, and likely (60 to 80% chance) across eastern Victoria.
- For January to March, above median minimum temperatures are very likely (greater than 80% chance) for much of Australia, and likely (60 to 80% chance) for southern South Australia and most of Victoria. The Gascoyne coast of Western Australia has roughly equal chances of above or below median minimum temperatures.

Streamflow predictions

Streamflow has a direct influence on waterbird habitat extent and population abundance. Rivers and creeks provide feeding, resting and breeding habitat and provide inputs into wetlands where they have not been diverted.

Streamflow forecast for December 2023 to February 2024



- Low streamflow is likely for most forecast locations from December to February with the exception of some in the far south-east.

Generated: 23:55 05/12/2023 (ver. 2.9.0)

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2023 harvest estimates

Harvest statistics can provide information on the health and dynamics of game duck populations, including distribution, abundance and productivity.

- The 2023 duck season was reduced from 12 to five weeks (35 days) in length. The season start was delayed from the third Saturday in March to 26 April and the end of the season brought forward from the second Monday in June to 30 May. The bag limit was reduced from 10 to four birds per day. Blue-winged Shoveler and Hardhead could not be hunted.
- There were 21,959 Game Licence holders endorsed to hunt duck in 2023. It was estimated that 65%, or 14,118, actually hunted, each taking an average seasonal harvest of 22.7 ducks.
- The average number of duck hunting days per active duck hunter was 7.1 days.



2023 harvest estimates cont...

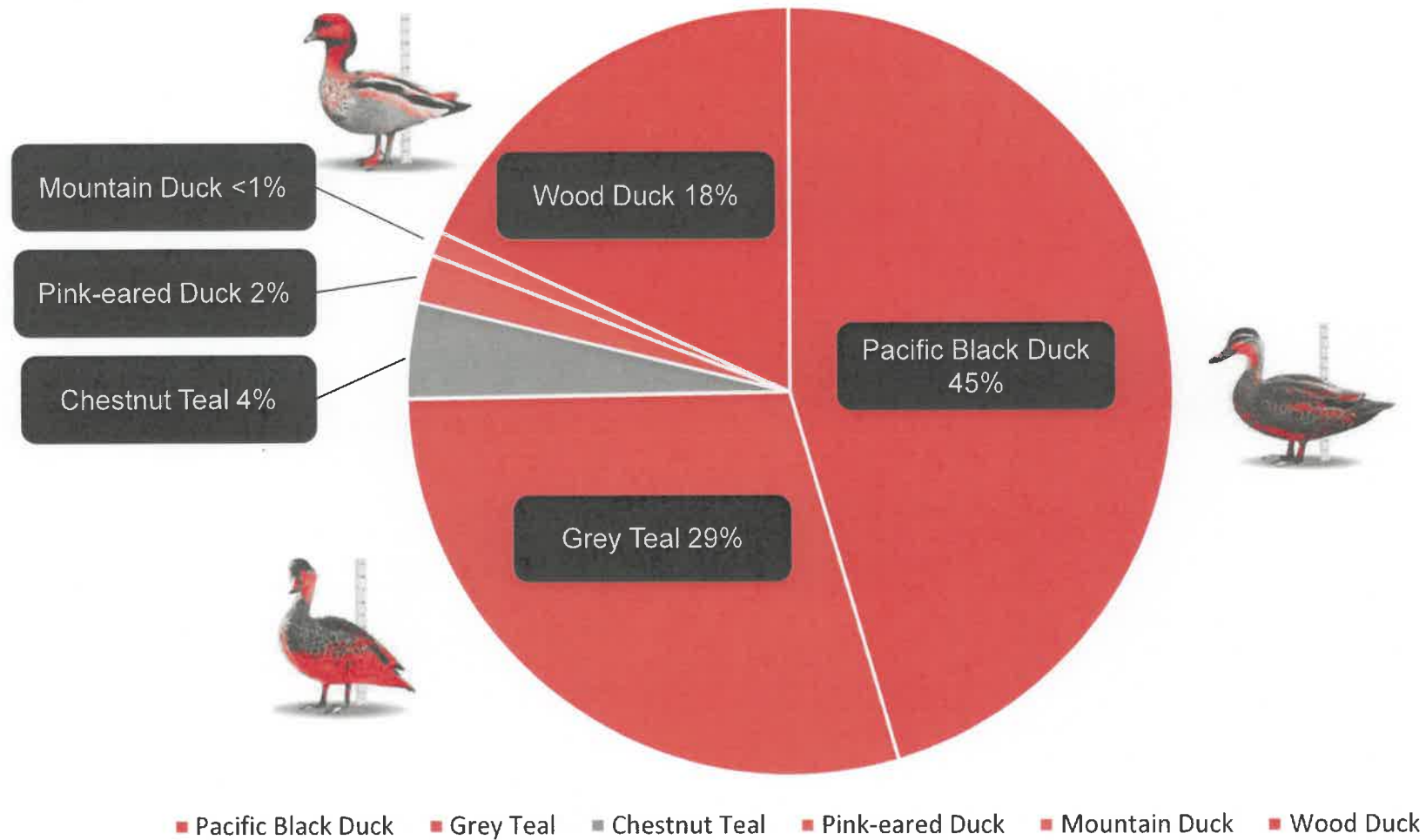
- The estimated seasonal harvest in 2023 was 319,908 consistent with the long-term average of 320,000.
- The total estimated number of duck hunting days was 99,700, 17% above the long-term average (85,000).
- The three most commonly harvested species were Pacific Black Duck (45%), Grey Teal (29%) and Australian Wood Duck (18%). Combined, these three species constituted 92% of the total seasonal harvest. The remaining ducks harvested were Chestnut Teal (4%), Pink-eared Duck (2%) and Mountain Duck (1%).
- Pacific Black Duck, Grey Teal and Wood Duck typically make up 90% of the total harvest, each with approximately 30%. Pacific Black Duck harvest was above average and Wood Duck was below average.
- The total harvest was estimated to be greatest in the North Central Catchment Management Authority (CMA) area, followed by West Gippsland CMA area and the Goulburn Broken CMA area.
- The top five towns for the total reported number of ducks harvested were (in descending order) Kerang, Sale, Horsham, Echuca and Geelong.

Source: Moloney and Flesch (2023)



Harvest per game species

Percentage (rounded) of harvest per duck species for 2023



Source: Moloney and Flesch (2023)

Long-term harvest statistics

Estimates	2009 ¹	2010 ²	2011	2012	2013	2014	2015 ³	2016 ⁴	2017 ⁵	2018 ⁶	2019 ⁷	2020 ⁸	2021 ⁹	2022 ¹⁰	2023 ¹¹	Avg 2009 - 2023
Licensed hunters	18,348	21,861	23,716	24,533	24,036	26,261	25,837	25,681	26,324	25,799	24,925	23,378	24,330	23,098	21,959	24,006
Total # hunter days	76,659	85,801	103,450	109,718	91,748	118,800	91,264	100,749	96,508	91,570	81,023	29,501	19,720	96,102	99,700	86,154
Total harvest	222,302	270,574	600,739	508,256	422,294	449,032	286,729	271,576	438,353	396,965	238,666	60,403	52,456	262,567	319,908	320,055
Avg # days hunted in the season per licence holder	3.98	3.98	4.48	4.6	3.75	4.57	3.59	3.98	3.83	3.62	3.27	1.3	0.8	4.2	4.6	3.64
Seasonal harvest per licence holder	11.1	12.5	26.0	21.2	17.2	17.3	11.4	10.5	17.4	15.7	9.62	2.58	2.16	11.57	14.6	13.4
Opening w/end bag per hunter	4.5	4.2	9.2	5.3	9.5	5.7	5.8	5.1	7.1	6.3	4.4	N/A	N/A	N/A	N/A	5.6*
Avg # ducks per day hunted	2.7	3.1	5.7	4.6	4.6	3.7	3.1	2.6	4.5	6.4	2.9	2.05	2.33	2.73	3.21	3.61

*Does not include 2020, 2021, 2022 and 2023 following a mid-week opening

Harvest estimates are at 95% confidence intervals

Modified season arrangements

- Two (2) birds a day with an additional three (3) Wood Duck. No Blue-winged Shoveler (BWS), Pink-eared Duck or Hardhead duck (49 day season)
- Five (5) birds a day with an additional three (3) Wood Duck. No more than one (1) Blue-winged Shoveler (72 day season)
- Ten (10) birds a day which included a maximum of two (2) BWS on opening day. Five (5) birds per day which includes a maximum of 1 BWS for season remainder (80 day season)
- Eight (8) birds on opening day. Four (4) birds a day for season remainder. No BWS hunted in 2016 (87 day season)
- Ten (10) birds a day. No BWS hunted in 2017 (87 day season)
- Ten (10) birds a day. No BWS hunted in 2018 (87 day season)
- Four (4) birds per day on opening weekend. Five (5) birds per day for the remainder of the season. No BWS hunted in 2019 (65 day season)
- 3 birds per day. No BWS hunted in 2020 (38 day season). COVID-19 restrictions applied to travel, gathering size, no overnight camping
- 5 birds per day. No BWS hunted in 2021 (20 day season). COVID-19 restrictions applied to travel and the size of social gatherings
- 4 birds per day. No BWS and Hardhead hunted in 2022 (90 day season)
- 4 birds per day. No BWS and Hardhead hunted in 2023 (35 day season)

Interim Harvest Model

- An expert panel recommended to develop a harvest management framework to translate waterfowl monitoring and wetland availability data into harvest recommendations while adaptive harvest management is developed simultaneously.
- An interim harvest model was developed by two members of the expert panel who are experts in waterfowl ecology.
- The model uses information from long-running duck population data sets to explore the relationship between game duck abundance, habitat availability, time and past harvest management. Condition indices are developed and awarded points.
- Using the relationship between past actual daily bag limits and retrospectively calculated point scores, the 2023 point score produces a recommended daily bag limit for the upcoming season.
- Based on 2023 data, the recommendation for the 2024 duck season is nine birds per day.
- The experts recommended to regulate the bag limit rather than season length if there was a need to restrict seasonal harvest.



Summary



Summary

This report should be read in conjunction with source material and references cited below.

- For the previous three years, La Niña and other drivers have influenced Australia's climate resulting in significant rainfall and flooding throughout parts of eastern Australia resulting in widespread and extensive habitat for waterbirds.
- In 2023, El Niño conditions returned to Australia, as well as a positive Indian Ocean Dipole. The result was drier conditions across much of eastern Australia in 2023. In response waterbird habitat throughout eastern Australia declined from the previous year.
- The majority of wetland area occurs between northern Victoria to central New South Wales. Surface water availability in Victoria declined slightly from 2022 for both wetlands and dams, but was still higher than in 2020 and 2021.
- EAWS showed that waterbirds were more widely dispersed across the eastern Australian landscape than last year, however, the majority of birds were found in northern Victoria and central Queensland.
- In response to excellent breeding conditions from the previous year, most game duck populations increased:
 - Victoria's total population increased from 2.41 million birds in 2022 to 7.1 million in 2023
 - NSW Riverina's total population increased from 964,000 in 2022 to 4.3 million in 2023
 - the EAWS game duck index for all of eastern Australia increased by almost 7-times to the seventh highest recorded in 41 years and 60% above the long-term average. The EAWS Victorian game duck population index increased by almost 25-times from 2022.

Summary cont...

- Drier conditions in 2023 saw waterbird breeding species' richness and breeding abundance decrease from the previous year, but was still only slightly below the long-term average.
- Three major indices for waterbirds (total abundance, number of species breeding and wetland area index) continue to show significant declines over time. These declines have been attributed to water resource developments (e.g. building of dams, floodplain developments, extraction of water) which have caused widespread degradation of freshwater habitats (Kingsford *et al.* 2017).
- The persistence of El Niño conditions and the weakening positive Indian Ocean Dipole are forecast to result in below average rainfall and warmer days and nights until the end of summer. Habitat is expected to decline, however, there is much residual water in the system following three years of La Niña conditions. It is unknown whether El Nino conditions will persist beyond the summer of 2024.
- The interim harvest model considers the relationship between game duck abundance, the extent of habitat throughout eastern Australia, time and past season management. Based on current conditions, the model recommends a daily bag limit of nine ducks.

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- Ramsey, D.S.L. and Fanson B. 2023 (2023) *Preliminary results from the 2023 survey of game ducks in Victoria*. Unpublished.
- The Long Paddock- www.longpaddock.qld.gov.au



ATTACHMENT 3

Summary: stakeholder views on 2024 duck season arrangements

Organisation	Recommendation	Comments
Animals Australia (AA)	Implement the Select Committee recommendation and cancel the 2024 duck season	<p>AA highlights concerns regarding the following claims:</p> <ul style="list-style-type: none"> - The uptick in game duck abundance across eastern Australia was weaker than previous rebounds. - Five of the eight game duck species remain in long-term decline. - A sixth species (Chestnut Teal) recently left the long-term decline list, but its recovery is confined to Victoria. It will be at risk if shooting proceeds. - A seventh species (Hardhead) has been below average for the past 11 consecutive years; it only avoids the “long-term” decline list because it was resilient last century. - Loss of habitat (e.g., water diversions, irrigation schemes) is recognized as the prime cause of long-term species decline. This cannot be easily reversed. It is therefore all the more urgent and critical to remove avoidable threats. - Wounding reduction proposals cannot remove this unacceptable cruelty. Duck shooters have shown little interest in training, but even if the wounding rate could eventually be reduced to 10 per cent (as seen in Denmark after several decades of training), that would be ~32,000 birds in pain and distress every year – and completely contrary to any “social licence” that hunters claim. - GMA’s ‘Considerations’ for the 2024 season seem to reflect shooters’ focus on short-term upticks in waterbirds in Victoria rather than long-term decline and sustainability across eastern states. - AA contends that the IHM is not fit for purpose as a predictor of game duck settings. AA questions the due diligence exercised by the GMA and opposes its use to decide or defend GMA recommendations for duck seasons as it has not been peer-reviewed, bases its modelling on historic decision-making patterns that pre-date climate and land use changes and not accurately reflecting the history on which it is based. - No public information has been provided on whether the inadequacies concerning the helicopter survey, identified by the 2021 Kingsford-Prowse peer review, have been addressed. AA recommends a further peer assessment before any public confidence can be placed in the survey results. - The GMA’s Considerations 2023 document is misleading in its emphasis on ‘rebounding’ duck numbers and that no commentary is provided about game duck breeding or long-term declines of individual species of game ducks. - Misuse of science: AA is concerned by the manner in which the GMA has presented the relevant scientific reports to justify continued recreational hunting of native waterbirds. - The Victorian Abundance Survey is inaccurate and slanted to provide the highest possible estimate of abundance. - The harvest survey results from 2023 show that the Kingsford-Klassen model approach of using bag limits and not season length to moderate harvest is flawed. - Many of our supporters live in regional Victoria and are concerned about GMA’s lack of engagement with non-duck-shooters. They have serious concerns about cruelty, sustainability, community safety, and loss of local amenity. GMA continues to ignore the impact of duck hunting on regional residents.
BirdLife Australia	No submission / comments provided	N/A

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Organisation	Recommendation	Comments
Coalition Against Duck Shooting (CADS)	Cancel the 2024 duck season and implement the ban on hunting as per the Parliamentary inquiry report.	<ul style="list-style-type: none"> - CADS recommends a cancelled season for 2024, citing climate change, illegal shooting of threatened species and duck welfare concerns. - The inability for the practice to be regulated. - The destruction of Traditional Owner heritage on wetlands.
Duck and Quail Hunting Australia (DQHA)	Full 12-week duck season - commencing at 7am on the traditional third Saturday of March - all the 8 Game species to be hunted throughout the season - ten bird per day bag limit including an additional two Blue-winged Shoveler - plus an additional 5 game species ducks	<ul style="list-style-type: none"> - Letter provided prior to the information pack being distributed. - If the duck season is to be altered from what is already legislated, it should be announced in a timely fashion 2-3 months before the season commences to allow hunters and business owners time to prepare for the forthcoming duck season.
Field and Game Australia (FGA)	Supports the interim harvest model Prefers a traditional Saturday opening Return to prescribed opening times for each day of the season	FGA makes the following points: <ul style="list-style-type: none"> - Seasons should be based on the best available scientific and objective models. - Supports the development of the adaptive harvest management. - Expectation of prompt season announcements. - Requests improved stakeholder engagement, in particular a post season review process. - Support education and training in hunting practices that prioritise animal welfare and ethical standards.
Regional Victorian Opposed to Duck Shooting (RVOTDS)	The GMA should, in line with its functions and obligations under the GMA Act, recommend closure of the 2024 duck and quail shooting seasons until all of the	RVOTDS recommends the 2024 season be cancelled and based its position on the following: <ul style="list-style-type: none"> - Continued and long-term declines in game ducks. - Continued lack of breeding in game ducks. - Significant adverse impacts of hunting on protected species and regional communities (RVOTDS claims this has not yet been adequately investigated by the GMA). RVOTDS claims that the GMA's representation of the IHM as a basis for its recommendations is flawed. <ul style="list-style-type: none"> - The models does not factor in climate change.

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Organisation	Recommendation	Comments
	serious adverse impacts evidenced in the submission are effectively removed	<ul style="list-style-type: none"> - The model requires due diligence- which the GMA is not doing. - The model failed in 2023 with the harvest 68% above the sustainable limit. - The model does not factor in wounding. - The Priority Waterbird Counts are flawed. <p>RVOTDS claims that the GMA has not given due consideration to the following factors in the season considerations:</p> <ul style="list-style-type: none"> - Long-term effects of climate change which are predicted to worsen. - Birds' susceptibility to climate change. - Pollution from hunting - plastic and lead. - Threat to migratory birds already experiencing significant decline. - Detrimental impact to bird populations of shooting monogamous bird species. - Adverse impacts of lead shot which is still used legally and illegally. - Lack of data regarding bird species present on wetlands prior to shooting. - Lack of data of birds shot during season. - Impact of shooting on protected and threatened species and a lack of diligence in collecting data. - Shooters' critical knowledge gaps as proven by recent tests. - Animal cruelty and unacceptable rates of wounding. - Lack of social / economic impact studies of bird shooting on the wider community, including lost tourism, inability to work from home, and health and safety implications including noise pollution. - No costs benefit analysis of hunting. - Community safety impacted by hunting including the stress caused by residents exposed to hours of gunfire. <ul style="list-style-type: none"> - RVOTDS provided downward trendline projections of game ducks becoming extinct by 2030. - RVOTDS also provided attachment links in its submission that relate to a 2018 survey of regional residents and a 2021 petition comments link regarding closing a public waterway to shooting in central Victoria. <ul style="list-style-type: none"> - RVOTDS also recommended that the 2023 quail hunting season be cancelled due to a claimed decline in Stubble Quail abundance.
RSPCA	No submission / comments provided	N/A
Shooting Sports Council of Victoria	No submission / comments provided	N/A
Sporting Shooters Association of Australia (Vic)	Supports the interim harvest model	<p>Letter only - No submission/analysis provided</p> <ul style="list-style-type: none"> - SSAA Victoria would like to see a more proactive approach taken to stakeholder engagement, including a post-season review process to allow improvements to the administration of seasons to be adequately considered and implemented.

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Organisation	Recommendation	Comments
Victorian Duck Hunters Association (VDHA)	<ul style="list-style-type: none"> - Full season - 10 bird bag limit with no more than 2 Blue Winged Shoveler - Season should open on the regulated Saturday or on the Friday before. - Opening two-day's bag limit of 15 birds and for rest of season an additional wood duck (effectively a 10 bird bag plus one additional wood duck) - First three day of season to open at 7:30am and close at 7:30pm 	<ul style="list-style-type: none"> - Duck numbers have increased by orders of magnitude and recent rain will trigger a breeding response. - EAWS only reports on a small number of wetlands. - Vic abundance up by 195%. - NSW abundance up by 345% and given this survey was in May June 2023, the numbers will have increased further following a usual spring breed. - Has been a population explosion of wood duck and based on the Prowse report of a sustainable harvest being between 10-30%, a larger bag for wood duck could be set. - Rhetoric around wounding rates is emotive and highly erroneous. - Based on comparison of the results of Normans' study x-raying birds in the 1970s, and the results of the recent GMA studies, wounding has decreased by 150-691%. - Further training and education, not regulation, should be applied to further reduce wounding rates. - No wetland closures should occur without scientific process and consultation with hunting stakeholders.
Wildlife Victoria (WV)	Wildlife Victoria recommends that the Victorian Government end the annual recreational native bird hunting season opening on all public and private land from 2024	<ul style="list-style-type: none"> - Wildlife Victoria expects the Victorian government to respect the outcomes from the Parliamentary Inquiry and implement the findings made by the Select Committee. - Responding in field to shot and injured native waterbirds during duck shooting season, as well as the substantive resource demand on Wildlife Victoria to persistently advocate and provide data to highlight the suffering of Victoria's native waterbirds, is an unreasonable impost on a charity. - Wildlife Victoria calls to attention the accumulative evidence of long-term declines in waterbird populations and asserts the continuation of an annual duck shooting season exacerbates the downward trend in population numbers. - Wildlife Victoria asserts that the continuation of an annual duck shooting season is incompatible with the proposed new animal welfare laws. - Wildlife Victoria contends that the GMA's ability to effectively monitor and enforce shooter compliance throughout an annual duck hunting season is extremely limited. If the annual duck shooting season is continued the GMA must be able to demonstrate the effective monitoring and compliance of a statewide hunting program. - Wildlife Victoria underscores a pronounced disparity in public opinion regarding ducks hooting, with the majority of Victorians expressing opposition to its continuation and less than 0.5% of the state's residents actively engaging in the activity.

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Organisation	Recommendation	Comments
		<ul style="list-style-type: none">- Wildlife Victoria asserts that the economic benefit of duck hunting cannot be verified and contends that it is insignificant given the very small number of Victorians that participate in the activity (less than 0.5% of the population).- Duck hunting represents an unacceptable risk to threatened and non-game species with evidence collected by Wildlife Victoria that shooters are unable or unwilling to identify and refrain from shooting threatened and non-game waterbirds.

Endorsement

Prepared by

Lead Author

(DEECA)

on 25/1/2024, 11:23 AM

Email: @delwp.vic.gov.au

Phone:

Liaison endorsement by

Liaisons

Myles Tooher (DEECA) General Counsel / Executive Director Legal & Legislation
on 25/1/2024, 11:30 AM

Email: @delwp.vic.gov.au

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Recommended by

Recommender

Carolyn M Jackson (DEECA) Deputy Secretary Regions, Environment, Climate
Action and First Peoples on 25/1/2024, 11:38 AM

Email: @delwp.vic.gov.au

Phone:

Organisation approved by

Organisational Approver

(DEECA) on 25/1/2024, 12:27 PM
(on behalf of John Bradley (DEECA) Secretary)

Email: @delwp.vic.gov.au, @delwp.vic.gov.au

Decision made by

Decision Maker

(DEECA) Department Liaison Officer (Environment) on 06/3/2024,
3:19 PM

(on behalf of **Steve Dimopoulos MP** Minister for Environment)

Email: @delwp.vic.gov.au, macs-min-env-Oct-

2023@delwpvicgovau.onmicrosoft.com

Closed by

Completer

(DEECA)

on 06/3/2024, 4:18 PM

(on behalf of MACS Ministerial Services)

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PRD@delwpvicgovau.onmicrosoft.com

To: Minister for Environment



MBR-240200644 - Legal notice for the 2024 Duck Hunting Season

Security classification: Official
Response prepared by: Regions, Environment, Climate Action and First Peoples, Biodiversity, Biodiversity Regulatory Reform and Emergencies.
Timing: Critical. Due 11/03/2024. The notice must be signed by 11 March 2024 at the latest so that it can be gazetted on 12 March 2024 in order to override the duck hunting season arrangements prescribed in the Wildlife (Game) Interim Regulations 2023.

Core Message

On 29 January 2024, you announced the 2024 duck hunting season will proceed with modifications to season start times, season length, daily bag limits for game ducks and the species that can be hunted. The attached Notice under section 86 of the Wildlife Act 1975 has been prepared for your signature in order to legally enact these modifications. You will also be requested by the Department of Jobs, Skills, Industry and Regions to sign an identical notice as the Minister for Outdoor Recreation to reflect joint administration of the arrangements.

Recommendations

1.

SIGN and date the attached Notice by 11 March 2024 at the latest to modify the 2024 duck hunting season (Attachment 1).

Signed
2.

NOTE that a similar brief will be provided to you by the Department of Jobs, Skills, Industry and Regions in your capacity as the Minister for Outdoor Recreation requesting joint endorsement of an identical Notice.

Noted
- Decision recorded by [Steve Dimopoulos MP](#),
Minister for Environment at 5:46 PM Thu, 07 Mar 2024

Minister for Environment Comments:

.

Decision Maker _____ Date _____

Steve Dimopoulos MP
Minister for Environment

From **Regions, Environment, Climate Action and First Peoples**

Title **Legal notice for the 2024 Duck Hunting Season**

Key Information

1. On 29 January 2024, you announced the 2024 duck hunting season will proceed with modifications to season start times, season length, daily bag limits for game ducks and the species that may be hunted (**Attachment 2**).
2. Modifications include:
 - reduced duration of the season to 57 days, starting on Wednesday 10 April and closing on Wednesday 5 June 2024 (instead of the prescribed 87 day season prescribed under the Wildlife (Game) Interim Regulations 2023 (the Regulations);
 - reduced daily bag limit to six game ducks (instead of a maximum of 10 as prescribed in the Regulations);
 - the hunting, taking and destroying of the Blue-winged Shoveler and Hardhead will be prohibited due to their status as threatened under the *Flora and Fauna Guarantee Act 1988*; and
 - delayed hunting start times to 8:00am across Victoria on every day of the modified open season (instead of 30 minutes before sunrise as prescribed in the Regulations).

Notice under section 86 of the *Wildlife Act 1975* (Wildlife Act)

3. Pursuant to section 86(1) of the Wildlife Act, you have the power, in your capacity as both the Minister for Environment and the Minister for Outdoor Recreation, to issue a Notice published in the Victoria Government Gazette to modify the duck season arrangements from those prescribed in the Wildlife (Game) Interim Regulations 2023 (the Regulations). A Notice made under section 86 of the Wildlife Act is an exempt legislative instrument for the purposes of the *Subordinate Legislation Act 1994* (SL Act), as prescribed by item 130.4 of the Subordinate Legislation (Legislative Instrument) Regulations 2021, however tabling and disallowance requirements apply to the Notice under both section 86(5) of the Wildlife Act and sections 15, 23, 24 and 25 of the SL Act. A copy of the Notice must be laid before both houses of Parliament on or before the sixth sitting day after publication of the Notice in the Victoria Government Gazette. The Notice may be disallowed in whole or in part by either House of Parliament, under section 86(7) of the Wildlife Act.
4. The Minister for Outdoor Recreation and the Minister for Environment jointly administer section 86 of the Wildlife Act under the Administration of Acts General Order. Therefore, each Minister must approve the Notice for it to come into operation.
5. To enact the modifications to the season arrangements agreed by government, you are requested to sign the attached draft Notice in your capacity as the Minister for Environment (**Attachment 1**). You will also be briefed by the Department of Jobs, Skills, Industry and Regions (DJSIR) and asked to sign an identical notice in your capacity as the Minister for Outdoor Recreation.
6. Under section 4B of the *Flora and Fauna Guarantee Act 1988* (FFG Act), Ministers and public authorities must give proper consideration to the objectives of the FFG Act and the potential impacts on biodiversity when performing statutory functions that may impact biodiversity. The objectives of the FFG Act are set out in section 4 and are:
 - to guarantee that all taxa of Victoria's flora and fauna, other than taxa specified in the Excluded List, can persist and improve in the wild and retain their capacity to adapt to environmental change; and
 - to prevent taxa and communities of flora and fauna from becoming threatened and to recover threatened taxa and communities so their conservation status improves; and
 - to protect, conserve, restore and enhance biodiversity, including—
 - flora and fauna and their habitats; and
 - genetic diversity; and
 - ecological communities; and

- ecological processes; and
 - to identify and mitigate the impacts of potentially threatening processes to address the important underlying causes of biodiversity decline; and
 - to ensure the use of biodiversity as a natural resource is ecologically sustainable; and
 - to identify and conserve areas of Victoria in respect of which critical habitat determinations are made.
7. Consideration has been given to the impacts of a 2024 duck hunting season on biodiversity. The recommended 2024 duck season arrangements are consistent with the objectives of the FFG Act and ensure the sustainability of game duck populations in Victoria.
8. The Game Management Authority (GMA) recommendations for the 2024 season arrangements took into account the available science on game duck distribution, abundance and habitat so that the recommended daily game duck bag limit and season length was set at an ecologically sustainable level. You adopted a precautionary approach and, in your capacity as Minister for Environment and in your capacity as Minister for Outdoor Recreation, you announced a reduced daily bag limit and season length from those recommended by the GMA. Further detail regarding the sustainability of game duck species is set out in MBR240101942.
9. Impacts on non-target species, including threatened species, are not expected to be significant and are managed through several means including education, waterbird identification testing and the closure of wetlands, or further regulation of hunting at wetlands, to protect significant numbers of threatened species and breeding waterbird colonies. You also announced that the hunting of game ducks that are listed as threatened species under the FFG Act will be banned this year.

Publication and tabling of notice

10. Once the Notice has been jointly endorsed, DJSIR will arrange for the notice to be published in the *Victoria Government Gazette*. DJSIR will also arrange for the notice to be tabled in parliament within six sitting days in accordance with section 86(5) of the Wildlife Act and the SL Act.
11. The Notice must be published in the Victoria Government Gazette at least three days prior to coming into effect. Therefore, the notice must be gazetted by Tuesday 12 March 2024 at the latest, otherwise the duck season arrangements prescribed in the Regulations will apply (the prescribed season commences from the beginning of the third Saturday in March in each year).

Additional notices

12. Wetlands will be surveyed throughout Victoria from 27 February until 14 March as part of the annual waterfowl count coordinated by the Arthur Rylah Institute. These surveys identify any wetlands that may require closure to hunting to protect rare and threatened species or to avoid disturbing colonies of breeding waterbirds.
13. The results of the survey will be available by late March 2024 and considered by the agencies (the Game Management Authority (GMA), the Department of Energy, Environment and Climate Action and DJSIR) at that time.
14. If any wetlands are required to be closed to hunting to protect significant numbers of threatened species or breeding waterbirds, you as both the Minister for Outdoor Recreation and the Minister for Environment, will be requested to sign further notices under section 86 or section 86A (emergency closure notice) of the Wildlife Act before the season commences.
15. Wetlands are also monitored by the GMA and DEECA during the duck hunting season. You may be asked to sign further notices should it be required to close further wetlands or to reopen wetlands to hunting when the risk to threatened species or breeding waterbirds has sufficiently reduced.

Context

16. Default arrangements for duck hunting during open season are prescribed in the Regulations, including:
- the open season commences from the beginning of the third Saturday of March and ends 30 minutes after sunset on the second Monday of June (regulation 30 and Schedule 3);
 - the prescribed bag limit is 10 ducks per day including a maximum of two Australasian (Blue-winged) Shoveler (regulation 31 and Schedule 4); and

- duck hunting is only permitted during open season from half an hour before sunrise until half an hour after sunset on every day of the season (regulation 48).
17. The Minister for Environment and the Minister for Outdoor Recreation jointly administer section 86 of the Wildlife Act under the Administration of Acts General Order. The ministers must jointly endorse notices under section 86(1) of the Wildlife Act. As joint decisions are, in law, a single decision, it is best practice for the relevant ministers to have substantially the same information when making decisions. Accordingly, DEECA and DJSIR are working together to co-ordinate ministerial briefings during the duck hunting season.
18. Section 86(1) of the Wildlife Act permits the Minister for Environment and the Minister for Outdoor Recreation jointly, by way of notice published in the Government Gazette, to:
- Prohibit absolutely, regulate or control the taking, destroying, or hunting of any particular kind or taxon of wildlife in any area, and for any period specified in the notice;
 - to provide for any relevant exemptions from such prohibitions, limits or controls; and
 - to fix penalties of not more than 25 penalty units for any contravention of such a notice.
19. Pursuant to section 86(3) of the Wildlife Act, a notice made under section 86(1) of that Act will prevail over any inconsistent regulation, including regulations made pursuant to that Act, and over any inconsistent authority granted by way of licence, permit or other authority.

Consultation

DJSIR and DEECA Legal and Legislation Division were consulted in the preparation of this brief and notice.

Attachments

No.	Attachment name
1	Wildlife (Prohibition of Game Hunting) Notice
2	Media release announcing the 2024 duck season arrangements

Wildlife Act 1975

WILDLIFE (PROHIBITION OF GAME HUNTING) NOTICE No. 1/2024

I, Steve Dimopoulos, as Minister for Outdoor Recreation and as Minister for Environment make the following Notice:



STEVE DIMOPOULOS MP

Minister for Outdoor Recreation

Date: 7 / 3 / 24



STEVE DIMOPOULOS MP

Minister for Environment

Date: 7 / 3 / 24

1. *Objective*

The objective of this Notice is to—

- (a) prohibit absolutely the taking, destroying or hunting in Victoria of specified indigenous game birds (waterfowl), and
- (b) otherwise regulate and control the taking, destroying or hunting of specified indigenous game birds (waterfowl);

which would otherwise be permitted during the 2024 open season.

2. *Authorising provision*

This Notice is made under section 86 of the **Wildlife Act 1975**.

3. *Notice prevails*

Under section 86(3) of the **Wildlife Act 1975** this Notice prevails over any inconsistent regulation made under the **Wildlife Act 1975** or any licence, permit or other authority to take, destroy or hunt any particular kind or taxon of wildlife issued under the **Wildlife Act 1975**.

4. *Definitions*

In this Notice:

2024 modified open season means the open season in 2024 for indigenous game birds (waterfowl) as modified by clause 6 of this Notice;

default bag limit for indigenous game birds (waterfowl) means the maximum number of indigenous game birds (waterfowl) that a person may take or destroy on any day during an open season as prescribed by regulation 31 and items 8 to 15 of Schedule 4 of the Wildlife (Game) Interim Regulations 2023;

indigenous game birds (waterfowl) means any of the following, being the kinds or taxa of game set out in Part 3 of Schedule 3 of the Wildlife (Game) Interim Regulations 2023:

- (a) Pacific Black Duck (*Anas superciliosa*);
- (b) Australasian (Blue-winged) Shoveler (*Anas rhynchos*);
- (c) Chestnut Teal (*Anas castanea*);
- (d) Grey Teal (*Anas gracilis*);
- (e) Hardhead (White-eyed Duck) (*Aythya australis*);
- (f) Australian Shelduck (Mountain Duck) (*Tadorna tadornoides*);
- (g) Pink-eared Duck (*Malacorhynchus membranaceus*); and
- (h) Australian Wood Duck (Maned Duck) (*Chenonetta jubata*).

5. Commencement and period Notice has effect

This Notice takes effect from 12.00 am on 16 March 2024 and continues to have effect until 11.59pm on 10 June 2024.

6. Modification of 2024 open season

The open season prescribed in Part 3 of Schedule 3 of the Wildlife (Game) Interim Regulations 2023 in relation to indigenous game birds (waterfowl) is modified in relation to the 2024 open season to be from 8.00 a.m. on 10 April 2024 to 30 minutes after sunset on 5 June 2024.

7. Prohibition on hunting of specified indigenous game birds (waterfowl)

- (a) The taking, destroying or hunting of any indigenous game bird (waterfowl) is prohibited:
 - i. at all times from 12.00am on 16 March 2024 until 8.00 am on 10 April 2024; and
 - ii. at all times from 30 minutes after sunset on 5 June 2024 to 11.59 pm on 10 June 2024.
- (b) The taking, destroying or hunting of the Australasian (Blue-winged) Shoveler (*Anas rhynchos*) is prohibited during the 2024 modified open season, anywhere in Victoria.
- (c) The taking, destroying or hunting of the Hardhead (White-eyed Duck) (*Aythya australis*) is prohibited during the 2024 modified open season, anywhere in Victoria.
- (d) The taking, destroying or hunting of any indigenous game bird (waterfowl) from anywhere in Victoria is prohibited during the following times on each day of the 2024 modified open season:
 - i. 12.00 a.m. until 8.00 a.m.; and
 - ii. From 30 minutes after sunset until 12.00 a.m.

8. Modification of default bag limit for indigenous game birds (waterfowl)

- (a) The default bag limit for indigenous game birds (waterfowl) is modified to a maximum of six indigenous game birds (waterfowl), on any day during the 2024 modified open season.
- (b) Clause 7 prevails over this clause to the extent of any inconsistency.

9. Contravention of Notice

A person must not contravene any part of this Notice.

Penalty: 25 penalty units.

Media Release

Steve Dimopoulos MP

Minister for Environment

Minister for Tourism, Sport and Major Events

Minister for Outdoor Recreation



Monday, 29 January 2024

CONTINUING RECREATIONAL DUCK HUNTING IN VICTORIA

Recreational duck and quail hunting will continue in Victoria with important changes to ensure it remains safe, sustainable and responsible.

The Victorian Government today announced its response to Parliament's *Inquiry into Victoria's recreational native bird hunting arrangements* – confirming its position has not changed, and recreational duck and quail hunting will continue with common-sense changes.

The Government will accept seven of the Select Committee's eight recommendations in full or in principle. While the Committee did not reach consensus in its report, the views of more than 10,000 Victorians and organisations were heard in the biggest response to a Parliamentary inquiry ever in Victoria.

Recreational duck and quail hunting is a legitimate activity, and it matters to thousands of Victorians who love the great outdoors, but it needs to proceed safely and sustainably. That's why we're introducing common-sense changes to make hunting even more responsible from 2025, including:

- Improving hunters' knowledge and skill by making education and training for hunters mandatory
- Stricter compliance levels, including further penalties for hunters breaking the rules
- Banning the use of lead shot for quail hunting
- Implementing the Waterfowl Wounding Reduction Action Plan, to reduce the risk of wounding, and
- Greater recognition of Traditional Owners' knowledge of hunting and land management

To guide the length and conditions of each duck season, the science-based Adaptive Harvest Management process will be implemented from 2025 – making sure that it's always science that guides the season.

After record-high native bird breeding in recent years due to the significant rainfall Victoria has received, the Victorian game duck population increased by almost three-fold.

Minister for Outdoor Recreation, Steve Dimopoulos has announced the 2024 duck season will commence on Wednesday 10 April 2024 and end on Wednesday 5 June 2024, inclusive.

Hunting start times will be delayed to 8:00am for the entire season. With a daily bag limit of six ducks per day, the Blue-winged Shoveler and Hardhead cannot be hunted for the 2024 season due to their threatened status. Determinations will be made as part of normal seasonal arrangements about sites where duck hunting will be prohibited.

Quotes attributable to Minister for Outdoor Recreation Steve Dimopoulos

"Duck hunting is a legitimate activity – but more than that, it supports regional communities and economies."

"Our position has not changed and we're supporting recreational duck and quail hunting to continue in a safe, sustainable and responsible way with minimal harm to our environment."

"We thank everyone who contributed to the Inquiry – the process was about listening to different perspectives, and that's exactly what we've done."

Endorsement

Prepared by	<div>Lead Author</div> <div>(DEECA) Officer on 07/3/2024, 7:43 AM</div> <div>(on behalf of (DEECA) Officer)</div> <div>Email: @delwp.vic.gov.au, delwp.vic.gov.au</div>
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