To: Minister for Outdoor Recreation

OFFICIAL



ARRANGEMENTS FOR THE 2024 STUBBLE QUAIL SEASON

Core message

The Stubble Quail is common, widespread, can respond rapidly to changing environmental conditions and is highly productive when conditions are favourable. There are approximately 26,500 hunters licensed to hunt Stubble Quail in Victoria and they harvest on average 159,000 quail each year. The way that Stubble Quail hunting is conducted provides a number of protections from overharvesting. Current environmental conditions for Stubble Quail are good but have declined somewhat from the previous year. Currently, it is estimated there are 5.3 million Stubble Quail in Victoria, a reduction from 2023, but higher than 2022.

Research has shown that electronic quail callers present an unacceptable risk of over-harvesting, and the Game Management Authority believes they should be prohibited from use, including in 2024. In light of the good habitat conditions, the built-in protections from over-harvesting and the estimated size of the Victorian Stubble Quail population, the Game Management Authority Board considers that based on the best available evidence, there are no substantive risks that would warrant variation to the prescribed hunting season arrangements.

Due	As soon as possible	essible				
Explanation	To allow industry, the	hunting community and government agencies to make arrangements.				
Recommendatio	n					
	e contents of this brief a cive basis to vary the Stu		-	ority does not consider there is any ed arrangements.		
Recommendatio	n 1 □ Approved	\square Not approved	\square Noted	☐ Returned for review		
2. Prohibit t	the use of electronic qua	ail callers for the 2024	quail season.			
Recommendatio	n 2	\square Not approved	\square Noted	☐ Returned for review		
Minister's Comm	nents					
Signed Steve Dimopoulos MP Minister for Outdoor Recreation			Date			
Approved by			Date			
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Chris Rose, Chair Game Management Authority a information removed

Endorsed by: Graeme Ford, CEO Game Management Authority a information removed

Prepared by: information removed

From	GAME MANAGEMENT AUTHORITY	Ref	
Title	ARRANGEMENTS FOR THE 2024 STUBBLE QUAIL SEASON	File	
		Due	As soon as possible

1. Key Information

Biology and ecology

The Stubble Quail is the most common quail species in Australia. Its conservation status is listed as 'Least Concern' by the International Union for the Conservation of Nature. Stubble Quail are widespread and found throughout all states and territories of Australia. It is a nomadic species capable of long-distance movements and can respond rapidly to changing environmental conditions. It is a ground-dwelling bird that can be found in a diverse range of habitats, from very dry parts of Australia to alpine grasslands.

Stubble Quail prefer grassland made up of native or introduced grasses and crops. It has adapted to agriculture and has likely increased its range following European settlement, despite significant reductions in its original habitat of native grasslands. Stubble Quail feed on seeds, other plant material and insects. Population abundance is strongly influenced by rainfall and the resultant impact on food availability. The species is highly productive and can breed at four months of age, lays average clutches of 7-8 eggs and can breed multiple times in a year if conditions are favourable.

Changes in agricultural practices, such as the increased use of pesticides and herbicides, large monocultures of crops and more intensively grazed pastures, has been found to impact ground-dwelling gamebirds internationally. It is currently unknown whether this has impacted Stubble Quail populations in Australia or whether it has offset any benefits to the species from agriculture.

While research into the ecology and biology of the species is limited, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) undertook research into the species' breeding, movements and diet in the 1970s-80s. Harvests have been monitored in Victoria using various methods since 1996. An ongoing abundance monitoring program commenced in Victoria in 2021 under the government's Sustainable Hunting Action Plan. A wing collection program has also commenced to collect demographic data on the species.

Hunting

The Stubble Quail is the only native quail species that can be hunted in Victoria. The Wildlife (Game) Interim Regulations 2023 (the Regulations) prescribe the annual arrangements for the Stubble Quail season, such as season dates, bag limits and hunting methods, including the use of gundogs.

Approximately 26,500 people are licensed to hunt Stubble Quail in Victoria. Harvest surveys show the number of hunters who actually hunt each year fluctuates between approximately 3,000 – 7,000. Stubble Quail hunters collectively hunt on average for about 20,000 days per season, however, this can be as high as 47,000 days, as was the case in 2011.

Harvest surveys show that approximately 90% of quail hunting occurs on private land, in harvested crop stubble paddocks or on improved or mixed pasture or grasslands. There are 16 State Game Reserves available for Stubble Quail hunting on public land. Approximately 70-80% of hunters use a gundog to assist in hunting.

The average seasonal harvest of Stubble Quail is approximately 159,000 birds per year. However, this can fluctuate in response to bird abundance, with harvest levels in the last decade ranging from a low of approximately 16,000 in 2014 to a high of approximately 678,000 in 2011 (this excludes COVID-affected years). The average quail harvested per hunter per hunting day over that period is approximately eight birds and the average seasonal harvest per active hunter is 45 birds.

Wounding levels in Stubble Quail hunting are unknown. Factors to note in assessing potential wounding rates in quail hunting are: the birds are most often found singularly or in pairs and not in larger groups and, therefore, the incidence of wounding through unintentionally striking non-target birds may mean levels are

lower than those experienced in duck hunting; the shotgun cartridges favoured in quail shooting can contain approximately 500 pellets meaning that a large number of pellets are within the pattern spread of the shot, however, there is always some risk that a struck bird will not receive an immediately lethal wound; the extensive use of gundogs by hunters may also lower the incidence of a wounding as the use of a well-trained dog is known to reduce wounding by locating birds, allowing hunters to move within effective shotgunning range and assisting in locating downed birds.

Government's Sustainable Hunting Action Plan committed to development of a quail wounding reduction action plan. Preparation was put on hold following the announcement of the Parliamentary inquiry into native bird hunting arrangements. Now that government has committed to continuing duck and quail hunting, this work will need to recommence. The GMA provides education material to hunters on how to minimise wounding.

Systemic protections from overharvesting

The majority of hunting occurs on private land. Permission to hunt must be obtained from the landowner/manager before being allowed to hunt with firearms. This prevents large concentrations of hunters in any one area. The number of hunters hunting at any one time and in an area is generally low, and hunters are dispersed in low densities. Stubble Quail are dispersed widely across the landscape in variety of habitats.

This combination of dispersed hunting pressure, low hunter numbers and densities and the lack of bird concentration provides a level of protection from over-harvesting. Stubble Quail are also cryptic (secretive, well-camouflaged and not easy to see) and difficult to locate unless they are flushed while walking or located with the use of a gundog.

In periods of extreme drought, birds may concentrate in areas of remaining suitable cover, experience high levels of mortality and fail to breed. In these circumstances, consideration may be given as to whether the species requires protection from hunting. Current environmental conditions indicate a very low risk of birds being concentrated.

Current habitat conditions for Stubble Quail

Habitat conditions for Stubble Quail are currently good but have declined from the previous year. Stubble Quail predominantly occur in open grasslands (native and improved) and croplands, and these environments have benefitted from three years of high rainfall across eastern Australia associated with the recent La Niña event. A change to El Nino conditions resulted in a dry winter-early-spring in 2023 which reduced pasture (grasses and crops) growth (see Figure 1); however, this was offset with a wet late-spring-early summer (see Figure 2) and large parts of Victoria and eastern Australia experiencing well above average to extremely high pasture growth (see Figure 3).

Stubble Quail take advantage of cropped areas, where they feed on spilled grain. The Commonwealth Department of Agriculture, Fisheries and Forestry forecast that the dry early-spring conditions would cause dryland summer crop plantings across Australia to fall by 21% to 1.2 million hectares. The fall in summer crop plantings reflects below average rainfall and low soil moisture levels during the early planting window across key dryland summer cropping regions in Queensland and northern New South Wales. Above average November rainfall was expected to boost soil moisture levels for crop establishment and growth and provide favourable planting conditions for some later-sown summer crops.

It was expected that the above average November and December rainfall provided some useful follow-up falls for dryland summer crops in southern Queensland and north-eastern New South Wales. Total Australian summer crop production is forecast to be 3.8 million tonnes in 2023–24, which is slightly above the 10-year average of 3.5 million tonnes.

Figure 1: Pasture (grasses and crops) growth 2022 compared to 2023

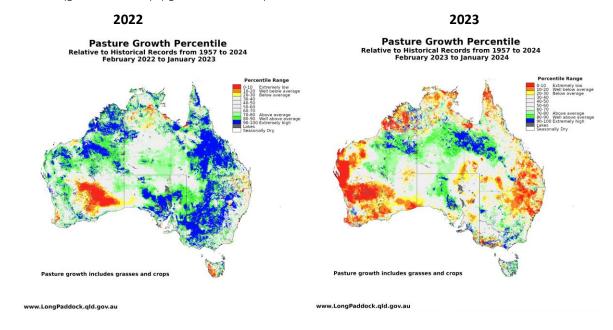


Figure 2. Rainfall November 2023 – January 2024

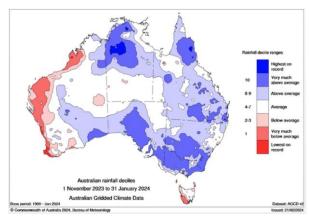
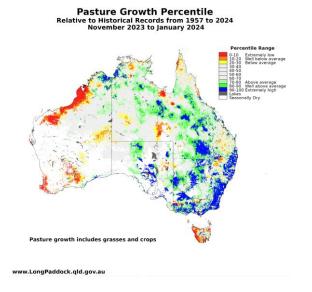
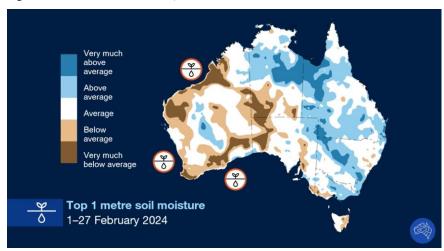


Figure 3. Pasture (grasses and crops) growth November 2023 to January 2024



Large parts of eastern Australia currently have average to above / very much above average soil moisture (see Figure 4) following the wet 2023-24 summer. This is likely to maintain plant growth and reasonable quail habitat in the short-term.

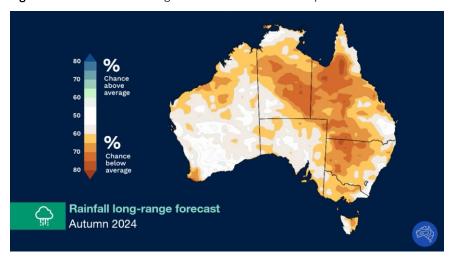
Figure 4: Soil moisture February 2024



Source: Bureau of Meteorology

The Bureau of Meteorology has reported that El Nino is nearing its end and conditions in the Pacific Ocean are expected to be neutral during autumn. It has predicted that for March-May, there is a 60-75% chance of below median rainfall for large parts of Australia (see Figure 5). March-May maximum temperatures are likely to be warmer than the median for most of Australia. Dry conditions would likely prevent birds from undertaking an opportunistic autumn breed, which can occur when conditions are conducive.

Figure 5: Chance of exceeding median rainfall March-May 2023



Source: Bureau of Meteorology

Stubble Quail abundance

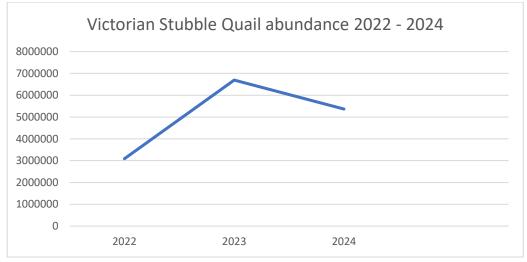
The GMA engages independent wildlife consultants to collect the field data and independent expert biometricians from the Arthur Rylah Institute for Environmental Research, Department of Energy, Environment and Climate Action (DEECA) to analyse the data and prepare a Stubble Quail abundance report. A preliminary report has been prepared to inform this advice. A final technical report will be completed in the coming months. A copy of the preliminary report is included at Attachment 1.

Line transect distance sampling surveys were undertaken for Stubble Quail across Victoria during January of 2024. Surveys were confined to habitat that was mapped as either pasture, dryland crops or native grassland.

While Stubble Quail do occur in other habitat types, these three land use categories comprise the majority of their habitat in Victoria.

Model-based distance sampling analysis estimated a total abundance of 5.3 million Stubble Quail in Victoria. This estimate is approximately 20% lower than that recorded at the time of the last survey (2023), when it was estimated that the abundance of the Victorian Stubble Quail population was approximately 6.7 million, but approximately 70% higher than 2022 when there were an estimated 3.1 million birds (see Figure 6).

Figure 6: Victorian Stubble Quail abundance 2022 - 2024



Based on the estimated total abundance of 5.3 million Stubble Quail, a long-term average seasonal harvest of 159,000 birds would constitute 3% of the total estimated Victorian population. Last year, approximately 303,000 Stubble Quail were harvested, and this would constitute approximately 6% of the 2024 Victorian population. A harvest at the highest recorded figure of 678,000 (in 2011) would constitute approximately 13% of the estimated 2024 population.

Harvesting at those levels in 2024 at the current total population abundance is not considered to pose a risk to the long-term conservation status of the species. It should be noted that these figures do not include wounding losses.

Electronic quail callers

Research conducted by Deakin University showed that electronic quail callers are highly effective at concentrating Stubble Quail into a localised area, making them susceptible to overharvesting. Their use is also counter to the concept of 'fair chase' in hunting and could potentially increase wounding should birds gather in larger groups. Based on this, the GMA Board has previously recommended to Government that the devices be prohibited from use in hunting. The Wildlife (Game) Interim Regulations 2023 are currently under review and expire in September this year. Their continued use will be explored in detail during the regulatory impact statement process. Until that occurs, it is recommended that quail callers again be prohibited from use during the 2024 quail season.

Recommendations

Based on the best information available, the GMA considers that:

- 1. Based on the current environmental conditions and quail population data for Victoria, there are no substantive risks that would warrant variation to the prescribed seasonal arrangements
- 2. the use of electronic quail callers should be prohibited for the 2024 quail season.

Social and economic impact

Given GMA's recommendation is to maintain the current regulated seasonal arrangements, it has no social or economic impact on the government's current policy position on Stubble Quail hunting. The proposed temporary prohibition on the use of quail callers does not impact on peoples' ability to continue to hunt quail and ensures quail hunting remains sustainable and people can continue to hunt the species into the future. While the sale of quail callers is not affected, retailers may see a lack of demand for sales. Their continued use can more thoroughly be reviewed through the regulatory impact statement process.

2. Context

Stubble Quail season

The Wildlife (Game) Interim Regulations 2023 prescribe the arrangements for the annual Stubble Quail season. The prescribed bag limit is 20 birds per day and gundogs may be used to locate, flush and retrieve Stubble Quail. The prescribed season runs from the first Saturday in April to 30 June, each year. In 2024, the quail season would commence on 6 April and avoids a clash with the start of the 2024 duck season (10 April), allowing the GMA to focus compliance efforts over the opening weekend of the quail season.

While lead shot may still be used for hunting Stubble Quail under the existing regulatory framework, the government has committed to a prohibition on its use from 2025.

Role of the Game Management Authority in providing advice on game management

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.

Section 8A 'Guiding principles' also 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.

3. Consultation

GMA consulted with the Arthur Rylah Institute for Environmental Research, DEECA.

4. Attachments

Attachment:

- 1. Preliminary results from the 2024 survey of Stubble Quail in Victoria.
- 2. Regional Victorians Opposed to Duck Shooting Submission to the 2024 Duck Season Arrangements which includes references to factors related to a 2024 quail season.

Preliminary results from the 2024 survey of Stubble Quail in Victoria.

Michael Scroggie, Dave Ramsey, Arthur Rylah Institute, DEECA, Victoria.

Preamble

To ensure the ecological sustainability of the arrangements for Stubble Quail hunting in Victoria it is desirable to obtain periodic estimates of the abundance of this species in Victoria at both the entire state and regional (in this case Catchment Management Authority area, CMA) scales. This document contains brief, headline results of some analyses of the most recent survey data for Stubble Quail in Victoria that can be used to inform decision-making for the forthcoming hunting season. Full results will be presented in a pending ARI technical report (Scroggie and Ramsey, in prep)

Methods

Surveys

Line transect distance sampling surveys were undertaken for Stubble Quail across Victoria during January of 2024. Surveys were confined to habitat that was mapped as either pasture, dryland crops or native grassland. While Stubble Quail do occur in other habitat types, these three land use categories comprise the majority of their habitat in Victoria. The survey methodology followed that described in Scroggie and Ramsey (2023). In brief, line transects were walked with three observers line-abreast with the two outer observers walking 10 m either side of the central observer. A rope of 20 m total length was carried stretched between the three observers both to maintain constant spacing and to aid in flushing of birds from the 20 m wide survey strip. Stubble Quail that were flushed were counted (including birds beyond the two outer observers out to a maximum of 20m from the transect line), and the distance from the centre line to the point of first detection was measured.

Abundance estimation

Abundance estimation was conducted using standard line-transect distance sampling methods (Buckland *et al.* 1993), with model-based approaches (Buckland *et al.* 2016; Miller *et al.* 2020) being preferred for final inference as they allow predictions of abundance at small spatial scales and the identification of relationships between local population density and selected habitat variables. Design-based estimates of abundance were also calculated as a point of comparison that is simpler and relies on fewer assumptions. The two sets of estimates were broadly congruent, so only the model-based estimates are included in this preliminary report. A comparison and commentary on the two methods will be included in the full report.

The fitted spatial model of abundance was used to produce predictions of Stubble Quail density at a 1 km² scale across Victoria. The predicted abundances at this scale were aggregated at both statewide and CMA scales along with associated estimates of uncertainty.

Results

Stubble quail abundance in Victoria

The model-based distance sampling analysis led to an abundance estimate of approximately 5.3 million stubble quail in Victoria (95% CI 4.1-6.9 million, Table 1). This estimate is somewhat lower than that recorded at the time of the last survey (2023), when it was estimated that the abundance of the Victorian Stubble Quail population was approximately 6.7 million (95% confidence interval 5.1

– 8.8 million) (Scroggie and Ramsey 2023). Based on the point estimates, this represents a decline of approximately 20 % in total abundance, however the relatively wide confidence intervals around the successive estimates of abundance means that the results are also consistent with population changes of larger or smaller magnitude (Figure 1).

Table 1. Model-based estimates of the abundance of Stubble Quail in each Victorian CMA region and for the entire state. Estimates are given with 95% confidence intervals and coefficients of variation (a measure of precision).

CMA	Area of habitat (km²)	Abundance (N)	Lower 95% bound	Upper 95% bound	CV
Corangamite	8,375	706,000	465,000	1,070,000	0.21
East Gippsland	1,980	35,000	19,000	63,000	0.31
Glenelg Hopkins	16,825	946,000	674,000	1,328,000	0.17
Goulburn Broken	12,895	377,000	243,000	586,000	0.23
Mallee	25,976	816,000	511,000	1,302,000	0.24
North Central	22,476	1,073,000	735,000	1,565,000	0.19
North East	5,468	107,000	64,000	179,000	0.27
Port Philip and Westernport	5,781	245,000	143,000	421,000	0.28
West Gippsland	6,142	292,000	155,000	550,000	0.33
Wimmera	17,740	769,000	487,000	1,215,000	0.24
TOTAL	123,658	5,366,000	4,159,000	6,925,000	0.13

At a regional (CMA) level, the population estimates were generally of good precision (most coefficients of variation <0.3), with the largest populations being found in the North Central, Glenelg-Hopkins, Mallee, Wimmera and Corangamite CMAs (Table 1).

Comparisons were also made between successive model-based abundance estimates for each CMA (Figure 2). Both declines and increases in abundance were noted when considering only the point estimates, however as confidence intervals for successive years were mostly overlapping it is not reasonable to conclude with certainty that these apparent increases or decreases are statistically meaningful. A fuller exploration of these issues will be found in the forthcoming report.

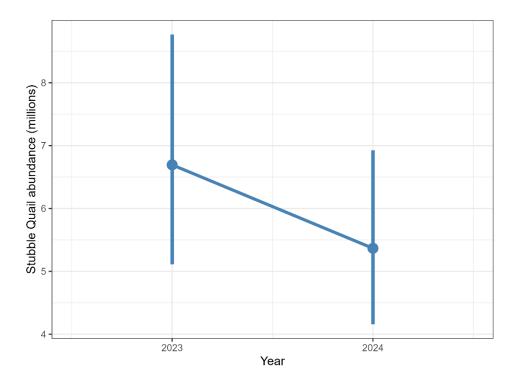


Figure 1. Comparison of model-based estimates of the total abundance of Stubble Quail in Victoria for 2023 and 2024. Error bars denote the 95 % confidence intervals on the estimates.

Conclusions

A model-based distance sampling analysis of recent survey data has yielded a population estimate of approximately 5.3 million Stubble Quail with a 95% confidence interval of 4.1-6.9 million. It should be noted that the estimates contained with this report are preliminary and may be subject to revision in the final report. The full technical report will contain additional information of relevance to decision-makers, including predictive maps of Stubble Quail density across the state, a comparison of model- and design-based population estimates, and further commentary and interpretation of the population estimates with regard to the ecological sustainability of the legal hunting program.

References

Buckland ST, Anderson DR, Burnham KP, Laake JL (1993). 'Distance sampling: estimating abundance of biological populations'. (Springer: New York)

Buckland ST, Oedekoven CS, Borchers DL (2016). Model-based distance sampling. *Journal of Agricultural, Biological, and Environmental Statistics* **21**, 58–75. doi:10.1007/s13253-015-0220-7

Miller DL, Rexstad E, Burt L, Bravington MV, Hedley S (2020). 'dsm: Density Surface Modelling of Distance Sampling Data' Available at: https://CRAN.R-project.org/package=dsm

Scroggie MP, Ramsey DSL (2023). Stubble Quail abundance in Victoria: improved survey methods and updated population estimates. Arthur Rylah Institute for Environment Research Technical Report Series No. 360. Arthur Rylah Institute for Environmental Research, Department of Energy, Environment and Climate Action, Heidelberg.

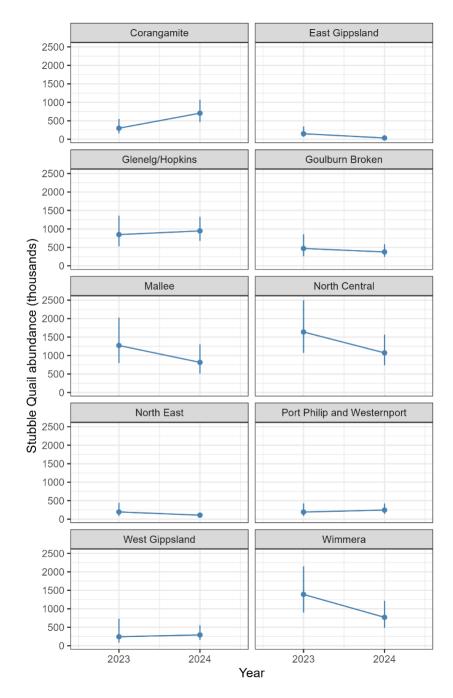


Figure 2. Comparison of model-based estimates of abundance of Stubble Quail in each Victorian Catchment Management Authority region for 2023 and 2024. Error bars denote the 95 % confidence intervals on the estimates.

Critical Information for the GMA Board

regarding its upcoming recommendation to Ministers about a 2024 <u>duck and quail</u> shooting season.



By Regional Victorians Opposed to Duck Shooting inc.

A voice for waterbirds and waterways



Core Message

GMA must perform its functions under the GMA Act, and recommend full closure of the 2024 duck and quail shooting seasons based on the best available evidence. That evidence shows:

- 1. Alarming long-term decline of game ducks.
- 2. Lack of breeding in game ducks.
- 3. Long-term decline in wetland habitat.
- 4. Long-term decline in Stubble Quail abundance.
- 5. Significant adverse impacts of duck and quail shooting on protected species, regional communities and the environment.

Three major indices for waterbirds (total abundance, number of species breeding and wetland area index) continue to show significant long-term declines. Long-term trends are more informative for predicting population status than year to year fluctuations.

Background

The GMA is responsible for promoting sustainability in game hunting, and performing its functions under the GMA Act, specifically to;

- S6 (g): promote sustainability in game hunting, and
- S6 (i): make <u>recommendations</u> to relevant Ministers in relation to iii) declaring public <u>land open</u> or closed to game hunting, open and closed seasons and
- S6 (h): monitor, conduct research and analyse the environmental, social and economic impacts of game hunting.

S8A requires the GMA to have regard to (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 and (e) the principle of stakeholder engagement and community participation, which means taking into account the interests of stakeholders and members of the local community.

S8 (1) of the Act requires GMA to perform its functions, (unless otherwise directed by the Minister in which case such directives must be published in GMA's Annual Report).

Regional Victorians Opposed to Duck Shooting Inc (RVOTDS) is a not-for-profit association that incorporated in 2018 and now has over 6200 direct supporters. It is the only stakeholder that speaks first-hand for the long-suffering regional residents and businesses for whom one quarter of each year is virtually intolerable due to the impacts of duck shooting. Our current Board consists of regional residents, landowners, farmers and business owners with a keen interest in the social and economic factors influencing our regions. Not only do we have a firm ear to the ground across regional Victoria, but we also pride ourselves on insights gleaned from significant research. Our input to GMA relating to the factors the regulator is meant to consider according to the Act, is invaluable.

At 3:52pm on December 19, 2023, GMA issued to stakeholders, the information "it will consider" regarding its recommendation to Ministers. Stakeholders were advised "If your organisation has any additional data that would be of value to the GMA Board in its deliberations, please provide it by no later than Monday 8 January 2024."

This document hence outlines critical information pertinent to the GMA Board in its deliberations which has concerningly, not been included in GMA's "consideration documents".

Summary

It's very disquieting that the "considerations" documents circulated to stakeholders regarding the 2024 shooting seasons, failed to emphasise the alarming message of the best available evidence. Nor did they include any information at all, on the following:

- quail,
- impacts on protected and threatened species,
- impacts on community,
- impacts on the environment.

Native Stubble Quail

Last year, GMA issued a recommendation to Ministers regarding a quail shooting season, with no stakeholder consultation. Once again, no information has been presented by GMA in the "considerations" material pertaining to quail. This is not in line with GMA's "commitment to transparency", "stakeholder engagement" or "evidence-based" decision making.

GMA's recommendation regarding a quail shooting season last year was, in the eyes of many, full of unevidenced generalisations, biased, misleading and flawed.

In this document we reference the best available evidence, and request it is reflected in GMA's recommendation to Ministers concerning the 2024 recreational native stubble quail shooting season. In short:

- While only one species of quail is permitted to be shot, there are four other protected species of
 quail which look very similar. Similar in appearance again, is the critically endangered Plains
 Wanderer. These non-game species are unacceptably at risk in quail shooting seasons because
 inexplicably there are no species ID tests required of quail shooters.
- Toxic lead ammunition is still used to shoot quail, including on food producing fields. Basic maths suggests tonnes of toxic lead, which doesn't break down, is pumped into Victoria's environment each quail shoot. Evidence shows lead mobilises and enters the food chain. Lead is a significant danger to protected species like the Wedge-tailed Eagle which feed on affected wildlife, and to people. There is no safe limit of lead in a person's blood according to the World Health Organisation¹.
- Stubble Quail Population "counts" have only been undertaken recently. Long-term government "harvest" data however (which the regulator states can be used to ascertain trends in species abundance) points to a significant long-term decline. With increasing fires and floods both of which impact quail it is not a time to risk this little bird's populations nor the populations of its lookalike protected species with guesswork.

GMA must recommend the 2024 Quail shooting season is closed until the above issues are resolved.

¹

Duck

The proposed bag limit of 9 birds a day is completely unacceptable because.

- bag limit is impossible to monitor especially given the thousands of waterways open to shooters, and
- it requires significant costs to taxpayers in attempts to monitor it and
- it makes no allowance for the considerable number of birds wounded or killed and left behind deliberately or otherwise and
- it results in significant adverse impacts to protected species, the environment in general, nearby families, farmers and other recreational users and
- is not based on the best available evidence, but rather a new and experimental model which, according to the model's authors, is significantly flawed.

GMA's focus on relatively new "counts" and this new model (Interim Harvest Model, or IHM) is disturbing, and not in line with GMA's obligations under the GMA Act. See below comments re "model-based estimates".

"It is important to clearly identify the uncertainties in the model-based estimates so that their use within subsequent decision-making processes does not lead to unintended population consequences for these species (i.e. determining quotas). Further, Victoria's game species do not only belong to or solely inhabit Victoria, and the current management system does not consider population drivers or data from outside Victoria."

Kingsford-Prowse 2021 review of the Victorian Game Duck Aerial Survey (p 1).

Conversely, the latest (41st) Annual East Australian Waterbird Survey (EAWS) which is the most comprehensive, consistent and long-term independent science available to inform critical waterbirds trends, showed that despite significant rain in recent years, three major indices for waterbirds: abundance, number of species breeding and wetland area index, continue to show long-term decline. Long-term trends are more informative for predicting population status than year to year fluctuations.

It is concerning that the Summary pages of GMA's Season Considerations bear little resemblance to the Executive Summary of EAWS. In fact they fail to highlight a few key facts:

- Wetland area decreased considerably from the previous year to well below average, and
- Five of eight game duck species continue to show significant long-term decline, and
- Total breeding decreased by an order of magnitude from the previous year and is below the long-term average. 97% of the little breeding observed, was in species other than ducks, and
- Wetland habitat is a major driver of waterbird abundance, breeding and diversity. It is experiencing ongoing long-term decline for several reasons including climate change and
- Long-term trends are more important than year to year fluctuations.

GMA's summary also failed to mention the shortcomings of the IHM.

GMA makes no mention of Prof. Kingsford's "tennis ball bounce" analogy² (the bounces in abundance after a breeding event keep getting lower). Nor the fact that long-term loss of waterbirds has not been reversed – Prof. Kingsford, Gannawarra Times 19/12/23.

 $^{^2 \, \}underline{\text{https://www.parliament.vic.gov.au/4afdfc/contentassets/70a387e7b9bc4d88b35cf9fda45cbe26/1.-final-profs-kingsford-and-klaassen.pdf}$

Social / Economic Impacts

While GMA has made no mention of social/economic impacts, we again include in our submission, significant evidence regarding adverse impacts of bird hunting on regional communities. Part of this is in our latest survey which received 821 responses within three weeks, from people directly impacted.

Impacts to protected / threatened species and the Environment

While GMA has made no mention of these important considerations, we again include in our submission, important evidence relating to these matters, including that obtained via Freedom of Information, pertinent to the GMA Board's deliberations.

Engagement

RVOTDS has previously provided reasons for why the community has lost trust in the regulator's independence and effectiveness. If the GMA Board would like to discuss any of these, or the points contained in this document further, we would be happy to do so.

The Victorian public does not need nor want, a taxpayer funded advocate for the shooting lobby which is seemingly intent on continually trying to find new science to support its agenda. What Victoria needs, is the regulator to do its job.

At the end of this submission is a list of questions sent to GMA, to which we would appreciate a considered response from the GMA Board as soon as possible.

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Continued Alarming Declines in Game Duck Indices, Call for Season Close

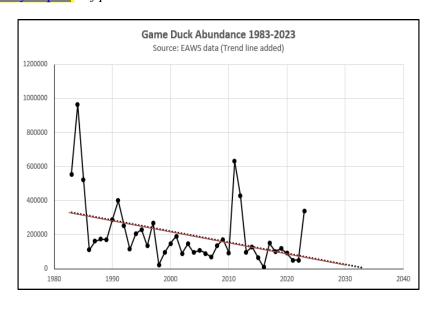
East Australian Aerial Waterbird Survey (EAWS)

The most expansive, consistent, and long-term scientific evidence available to monitor critical trends in game ducks, is not given due consideration by GMA. In particular the below points from the 41st annual EAWS Summary Report are insufficiently (if at all) noted in GMA's "season considerations":

- Despite two consecutive La Nina years, three major indices for waterbirds: abundance, number of species breeding and wetland area index, continue to show long-term decline. Long-term trends are more informative for predicting population status than year to year fluctuations.
- Wetland area decreased considerably from the previous year, to well below the long-term
 average. We note GMA states "Declines in wetland area are likely to result in declines in
 waterbird abundance, breeding, and breeding species richness."
- 40% of wetlands surveyed had no waterbirds.
- Global warming continues to influence Australian and global climates.
- Total breeding decreased by an order of magnitude from the previous year and was below the long-term average. 97% of the small amount of breeding noted, was in species other than ducks.
- Ducks are concentrated in two main bands one being Victoria. This means a shooting season in Victoria unacceptably risks their populations.
- While game duck abundance increased (due to La Nina breeding event in 2022), five out of eight hunted species continue to show significant long-term declines. They are Pacific Black Duck, Australasian Shoveler, Grey Teal, Mountain Duck and Australian Wood Duck. Mountain Duck declined in abundance from last year despite La Nina.

Two others such as Hardhead have always been, and continue to be, low in abundance. Chestnut Teal, aside from a single spike thanks to La Nina recently, has been low in abundance for around three decades.

We urge the GMA Board to familiarize itself with the sobering graphs for each species in the EAWS Summary Report. *Of particular concern is the Mountain Duck.*



Left: Trend for all game ducks.

While game ducks finally increased as a result of significant rainfall in recent years, the "tennis ball bounce" is getting lower each time

The trend line is alarming and should have been given more focus by GMA.

Interim Harvest Model (IHM)

It is appalling that taxpayers have been forced to fund an additional new "model" to determine bird shooting seasons, when we already have over forty years of consistent and comprehensive independent scientific data showing what is happening with all relevant duck indices, including at species level, via the EAWS. (Perhaps if the EAWS was showing prolific duck populations, shooters would have accepted it and saved our money.)

It is highly concerning that GMA appears to be placing significant emphasis on this relatively new and experimental model, which is unable to provide critical insights at species level, and is based on the last 30 years of data which have resulted in the long-term decline of game ducks!

GMA has failed to mention the IHM's limitations in the considerations. For a start, the model's authors stipulate that because it is a historically statistical model, if any past parameter changes (as climate is doing), then it is less reliable.

The model's authors also stipulate it is "only a model" to be used alongside "due diligence". (However GMA does not seem to have much to report by way of due diligence – or it prefers to ignore better evidence - as our submission details).

The IHM failed last season. The take was 68% above the "sustainable" limit. GMA has not mentioned this.

The model does not account for the significant number of wounded birds which are an unavoidable result of duck shooting. Nor does it consider impacts of hunting on protected / threatened species, nor the environment (toxic lead and plastic shotgun components), nor the non-hunting community (vast majority of Victorians) – all of which are impacts the GMA is supposed to be concerned with.

The IHM relies on EAWS to an extent, but also on more dubious "counts" which take place at a fraction of the wetlands covered by EAWS, let alone a reasonably indicative percentage of all shooting waterways.

One such count, the Summer Waterbird Count (SWC) now rebadged as the Priority Waterbird Count, has been conducted since 1987 by a mixture of departmental staff and "volunteers" – mainly shooters. Government resources were restricted over time, and the number of wetlands surveyed declined considerably, from a peak of 786 (1991) to 126 (2015) to just 44 now, out of tens of thousands of public waterways open to shooters. As there is no obvious consistency in the coverage of the state's wetlands, this series of counts is of little scientific use.

A further concern is the skill and objectivity of those doing the counting. Did all departmental staff pass a WIT test? Who checked that the "volunteers" from Field & Game Australia (FGA) and the shooters within the public sector were not over-estimating the numbers in the hope of a more generous season? Perusal of FGA annual reports shows that in Nov 2018 their volunteers allegedly counted more than half a million game ducks, an astonishing feat, given that the record February count from the SWC (1991) was only 414,417 game ducks.

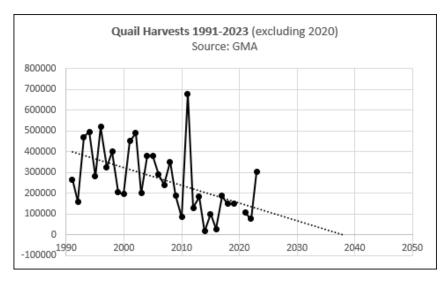
The GMA Board must disregard GMA's "Summary" which appears biased and misleading, and focus attention on the Executive Summary of the EAWS – the most comprehensive, consistent, independent long-term science.

³ https://www.gma.vic.gov.au/ data/assets/pdf file/0006/863610/Combined-Final-Report-and-Attachment.pdf (see p20).

Alarming Quail Shooting Considerations

It is disappointing that once again, there has been no transparency of quail shooting season considerations. Last year GMA gave the green light for another full shoot without stakeholder consultation, and no regard it seems, for evidence regarding populations, impacts to threatened species or the environment. We believe this is a failure of GMA's duties under the Act. It is certainly not conducive to developing trust in the (non-shooting) community.

Here we present evidence of why the GMA Board should recommend the 2024 Quail shooting season be closed.



Left: government harvest data shows a clear and alarming downward trend in native Stubble Quail take.

"Long-term harvest records can be used as a proxy to monitor abundance".

ARI/GMA

*Note a "spike" in 2023, likely due to shooters aware of the Parliamentary Inquiry, wanting to make these numbers "look better". This data is offered by shooters on a voluntary basis and not checked for accuracy.

This 2023 anomaly makes little difference to the long-term decline.

Long-Term Declines in Quail Abundance

Population counts have only recently taken place (presumably as a result of our bringing focus to the fact they did not exist).

The first ever "count" of the species in 2022 found just 101. This tiny number was extrapolated up to an unbelievable figure of 3 million, with a very high "uncertainty" coefficient of variation (0.29). Dr Ramsay - the report's author - has previously stated that if this coefficient exceeds 0.15, the exercise becomes unreliable. Therefore, the estimate of 3 million quail was not able to be relied upon – which is not a surprise to regional landowners who say there are "hardly any quail left".

Since this first- ever "count", there was unprecedented flooding in Victoria's quail habitat areas. Flooding adversely impacts quail populations (Frith and Carpenter 1980).

A second "count" was performed across more locations in early 2023 which allegedly found around 400 birds. This was extrapolated up to an incredible 7 million, and miraculously the error margin changed to exactly 15% (after we drew attention to it?) The second count was really the first, given the previous year's limitations.

In the absence of any reliable long-term population "counts", the only data available on quail populations is the annual harvest toll. An email to RVOTDS from GMA in September 2022, advised "long-term harvest records can be used as a proxy to monitor abundance".

The shooter survey to obtain this harvest data commenced in 1991. The quail graph above shows that the median toll was around 320,000 for the two decades to 2011. In 2011 there was a record toll, presumably due to the breaking of the Millennium Drought and the improvement in habitat.

By referring to the annual reports available on the GMA website, it is clear to see that subsequent tolls are much reduced. (With the exception of 2023).

Although the data collection changed from a mail survey to a phone survey from 2009 onwards, an unpublished paper from ARI (refer p19) reconciled the two sets of data and showed a clear downward trend from 1991 onwards⁴. Clearly our quail are in alarming decline.

Even the 2012 Regulatory Impact Statement (RIS) acknowledged the "probable declining population" (p117). The RIS acknowledges (p117) some factors contributing to species decline, including changes to agricultural practices and use of herbicides that reduce available habitat. However, climate change is now known to be highly relevant also.

Significant Adverse Impact to non-game species of quail shooting.

There is only one species of quail allowed to be shot. However this one species closely resembles another four species of quail which are protected, as well as the critically endangered Plains Wanderer.

There are no species ID tests for quail shooters. Add in the fact that quail are often shot in poor light conditions. What could possibly go wrong?

Unfortunately GMA has little if any data on this. However if we look at the best available evidence, which is the data the previous regulator collected regarding non-game species shot during duck shooting (see p 14-18), it is highly probable there is a significant impact to non-game species during quail shooting.

Toxic lead ammunition.

Is still used in quail shooting. Basic math applied to government fact sheets, suggests tonnes of toxic lead ammunition is pumped into our environments (including food producing) each quail shooting season. See p 12.

Timing Clashes with Breeding.

Notably, CSIRO scientists found that quail breeding frequently extends into April, and April often finds many young birds still unable to fly strongly. Why has GMA recommended quail shooting take place April to June?

Given the evidence which suggests quail populations are declining, the increasing weather events negatively impacting quail (including current floods), the obvious risks to protected and threatened species, as well as the environment from toxic lead ammunition, the GMA Board must recommend the 2024 quail shooting season be closed.

 $^{^{4}\,\}underline{\text{https://www.gma.vic.gov.au/}}\,\,\,\underline{\text{data/assets/pdf}}\,\,\,\underline{\text{file/0014/503150/Deer,-duck-and-quail-harvests-1985-to-2015-FOR-WEB.pdf}}\,$

Further critical factors which support a season close for 2024

Concerningly, the below factors do not form part of GMA's Season Considerations either:

- 1. Long-term effects of climate change which are predicted to worsen.
- 2. Birds' unique susceptibility to climate change.
- 3. Threat to migratory birds already experiencing significant decline.
- 4. Detrimental impact of shooting monogamous bird species.
- 5. Adverse environmental impacts of plastic shotgun components and toxic lead ammunition (still used legally in quail shooting and illegally in duck shooting).
- 6. Lack of data regarding bird species present on wetlands prior to shooting.
- 7. Lack of data of birds shot during duck season.
- 8. Impact of shooting on protected & threatened species.
- 9. Shooters' critical knowledge gaps as proven by recent tests.
- 10. Unavoidable wound rates.
- 11. Adverse social/economic impacts of bird shooting on the wider community.

The above points are detailed as follows:

- 1. The long-term trend of climate change and its impact on our waterbirds is rarely if ever mentioned by GMA. The Bureau of Meteorology has warned that our country is heating more rapidly than the global average. Worsening storms and floods, longer droughts, hotter, drier summers are some of the repercussions we are already seeing as a result of a 1'C rise in average temperatures. The bureau says we are headed for an unlivable 4'C rise in the next 80 years. The consequences for our wildlife will be catastrophic. Birds are especially vulnerable (see point 2).
- 2. No consideration has been given by GMA to the fact that birds are twice as vulnerable to climate change as mammals. (Global Change Biology, Zoological Society of London report by international scientists group based on 481 species in 987 populations around the world). Quail populations are particularly susceptible to floods⁵. With climate change predicted to only worsen, it is obvious our already struggling bird populations require protection from recreational shooters.
- 3. Shooting disturbance at Victorian waterways adversely impacts migratory birds' ability to obtain critical feed and rest prior to their long journeys along the East Asian-Australasian Flyway. Of the species who use the flyway, 50 are in "catastrophic" decline and Australia is under numerous international obligations to protect them⁶

Hunters also force ducks to decrease their foraging behaviours, which can lead to compromised animal welfare including poor body condition. This has been shown to cause a **decrease in survival rates** for migratory birds. 6 Jan 2022

https://www.gma.vic.gov.au > assets > pdf_file > RS... PDF

Duck hunting season 2022 - Game Management Authority

⁵ Frith and Carpenter 1980

⁶ https://www.environment.gov.au/biodiversity/migratory-species/migratory-birds

4. No consideration has been given by GMA to the ripple effect through bird species most of which form life-long pairs - in fact, 90% conduct joint parenting. When one of a pair is shot, it is likely any offspring won't survive and the remaining partner may never recover. The real impact to bird populations therefore of shooting, is far larger than just the "harvest" numbers reported. Refer this article by Professor Kaplan, just one of numerous avian experts never consulted by GMA.

5. Adverse environmental impacts – Lead and Plastics:

Lead ammunition is still used legally in quail shooting and illegally in duck shooting as is reported most years. Lead is extremely toxic to ecosystems, animals and people even in tiny traces (emedicine.medscape.com/article/1174752). The World Health Organisation now states there is NO safe limit of lead in a person's blood⁷. It is an insidious poison causing extreme suffering to animals who ingest it, such as dabbling ducks, swans and secondary predators like protected eagles⁸. Given the long-term decline in breeding of our game ducks, why has GMA not considered the fact that lead also inhibits waterbirds' breeding? Refer this <u>short webinar</u> by Dr. Ruth Cromie – Head of Ecosystem Health, Wildfowl and Wetlands Trust (WWT).

GMA would be aware of the <u>EPA analysis of a small number of Victorian wetlands in</u> recent years and the toxic lead levels found in ducks (well above safe food guidelines) at twenty percent of these wetlands. This percentage is truly frightening when one extrapolates what it means across the thousands of shooting wetlands around the state.

According to a Department of Sustainability & Environment report (Flora and Fauna Guarantee Action Statement # 32), each ammunition cartridge holds 30-45g of lead. Multiply 30g by the average number of 175,000 shot quail each year in Victoria (GMA harvest estimates) and one gets a staggering 5 tonnes of lead potentially pumped into Victorian (including food-producing) environments each season - without even adding in the lead deposited by missed shots or used illegally in duck shooting.

There is evidence that lead "mobilises" and enters the food chain. Also, that is inhibits plant growth⁹ and milk production in cows. (Guitart and Thomas 2005, Dickerson et al 2007).

A <u>2018 CSIRO study was</u> scathing of Australia's failure to take seriously the risks to humans, animals and the environment from lead ammunition.

GMA's own Simon Toop is well aware of the lead toxicity impacts of hunting, having been involved in the recent <u>study</u>. In particular the finding:

"The quantity and characteristics of lead ammunition residues found suggest that predatory and scavenging wildlife and some groups of human consumers will be at risk of negative health impacts."

It is disappointing it seems to have taken RVOTDS to draw attention to the lead issue which has finally instigated a study by GMA. However studies had already been done. GMA must cease spending taxpayer funds on superfluous studies and instead do its job – that is, heed existing studies' results and recommend shooting seasons are closed. GMA must cancel the duck and quail shooting seasons for the toxic lead impacts alone under the precautionary principle, or risk litigation for negligence.

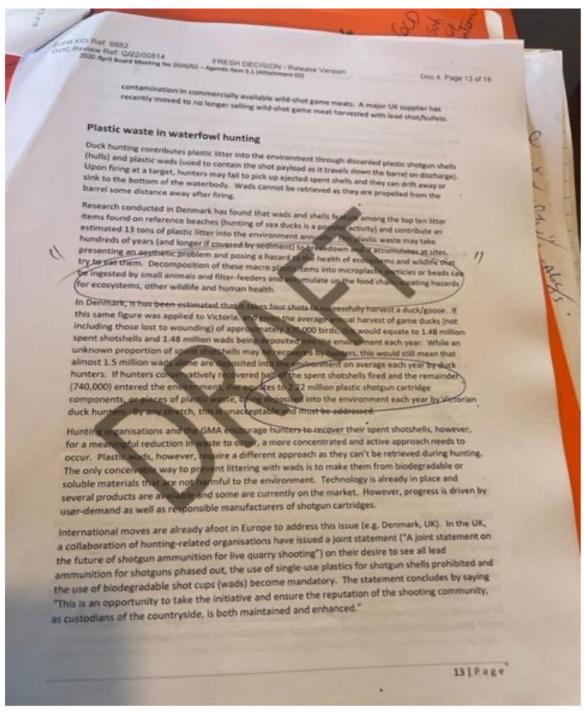
⁹ https://whc.vetmed.ucdavis.edu/sites/g/files/dgvnsk5261/files/local_resources/pdfs/lead-hunting-wetlands.pdf

⁷https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4961898/#:~:text=According%20to%20the%20US%20Centres,exposure%20can%20be%20considered%20safe.

⁸ https://www.sciencedirect.com/science/article/pii/S0269749123010060

Millions of Plastic Cartridges and Wads

A GMA Board Paper recently released under Freedom of Information states 2.2 million shells and wads are pumped into our environment each year just from duck shooters (excludes what would be pumped into it by quail shooters). Like lead, plastics can take hundreds of years to break down, posing a serious risk to people and animals as they enter the food chain as microplastics.



Above: screenshot of relevant page of GMA Board Paper recently released under FOI, discussing plastic pollution from duck shooters.

6. Insufficient data regarding birds including protected species present on wetlands prior to shooting.

In previous years (before GMA existed) over 500 wetlands were typically surveyed for the presence of bird species. This number has dropped to just 44 "priority wetlands"- grossly insufficient considering there are thousands of shooting areas. GMA has been unable to list, map or even estimate the approximate number of the thousands of public waterways where unmonitored shooting is allowed. How can anyone possibly know what may be present on them?

It's fair to say the regulator has no real idea of what birds are present at the vast majority of wetlands open to shooters. It is the epitome of irresponsibility to continue to allow shooting in these circumstances and ludicrous to suggest "sustainability" can be ensured with such a gross lack of critical data.

7. Insufficient and unreliable data of birds shot including threatened species.

GMA's own "Season Considerations" documents usually state "To effectively manage game species, it is important to accurately quantify the number of animals harvested". Yet this is never done. Despite GMA receiving millions more in taxpayer funds, there is a gross lack of monitoring. It is simply not possible to monitor the vast number of waterways where duck shooting is allowed. It is therefore not possible to know how many, of what species, threatened or otherwise, are shot across Victoria each duck and quail shooting season.

Estimates of numbers of game birds bagged by shooters are not only based on a survey of a small number of shooters extrapolated out assuming the entire duck shooter base would be the same (unlikely), but reliant on shooters' memories and honesty. The error margin is unacceptable. Estimates obviously do not include the significant number of birds shot and left behind¹⁰ (whether deliberately or not) and do not include the ripple effect through a species of losing one of a monogamous pair. They also of course do not capture the impact on protected species.



Australian Shelduck, monogamous, found shot and abandoned at Kerang during the 2023 duck shooting.

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¹⁰ https://www.rspca.org.au/take-action/duck-shooting

8. Impact of shooting on non-game species.

Given its requirements under the Act, it is of serious concern that GMA do not care more for impacts of hunting on protected and threatened species, which are evidenced each season, and recommend closure of future seasons. Just a few examples follow:



Above: some of the headlines which made media. Most don't.

Data Regarding Impact on Protected Species, Compiled by Previous Regulators

The shooting of protected / threatened species has been occurring for decades. RVOTDS obtained via Freedom of Information (FOI), data collated by previous regulators which shows a sample of the protected species killed in duck shooting seasons in Victoria (sample six years to 1993).

Year	Collected by animal welfare	Collected by CNR	Total	
1988	152	152	304	
1989	273	392	665	
1990	374	80	454	
1991	435	119	554	
1992	250	94	344	
1993	813	159	972	

Numbers of protected species found dead at just some of the Victorian duck shooting wetlands 1988 – 1993. Note the introduction of the Waterfowl Identification Test (WIT) in 1991 made little difference.



18 ARI Technical Report No. 135

Table 29 Number of specimens of non-game wildlife found dead around waters used for hunting during the 1993 duck open season. The data for birds collected by members of animal welfare organisations are counts made by CNR officers of birds delivered to CNR Heidelberg during the season.

Species	Collected animal welfare	Collected by CNR	Total
Freckled Duck Stictonetta naevosa	229	57	286
Eurasian Coot Fulica atra	242	35	277
Blue-billed Duck Oxyura australis	84	7	91
cormorant species	44	4	48
Black-tailed Native-hen Gallinula ventralis	0	43	43
Black Swan Cygnus atratus	29	14	43
Galah Cacatus rosiecapilla	21	11	32
small grebes	19	5	24
Musk Duck Biziura lobata	19	1	20
Great Crested Grebe Podiceps cristatus	14	1	15
Australian Magpie Lark Grallina cyanoleuca	0	13	13
corella species	7	5	12
ibis species	8	3	11
White-faced Heron Ardea novaehollandiae	3	6	9
Red-necked Avocet Recurvirostra novaehollandiae	6	1	7
Yellow-billed Spoorbill Platalea flavipes	0	6	6
migratory waders	1	4	5
Australian Magpie Gymnorhina tibicen	0	4	4
Silver Gull Larus novaehollandiae	4	0	4
tern species	0	3	3
Barn Owl Tyto alba	0	3	3
raven species	3	0	3
Darter Anhinga melanogaster	2	1	3
Dusky Moorhen Gallinula tenebrosa	2	0	2
raptor species	1	1	2
kingfisher species	0	1	1
Noisy Miner Manorina melanocephala	0	1	1
Australian Pelican Pelecanus conspicillatus	0	1	1
Fairy Martin Cecropis ariel	0	1	1
Little Friarbird Philemon citreogularis	0	1	1
Brush-tailed Possum	0	1	1
Total	813	159	972

972 protected species found dead at several Victorian wetlands in duck shooting season 1993, including Australia's rarest native duck – the Freckled Duck, thought to be one of the world's rarest, galahs, magpies and ibis.

^{*}Note these tables show only a fraction of the true toll on our protected species which is likely much larger because the vast majority of waterways where duck shooting is allowed are not monitored.

Failure of GMA to Maintain Data Regarding Impact on Protected Species

An email to RVOTDS from the CEO of GMA, states the numbers of protected species illegally shot each season these days are not quantified. This horrific fact is confirmed by Arthur Rylah Institute (ARI) which says regarding the risks or impacts of direct hunting mortality on non-target species:

"That is a separate question that can only be properly addressed by gathering robust data on the rates of non-target species being killed or injured by hunters. Such data does not exist and would be extremely difficult to gather".

- ARI 2019 "Waterbird Susceptibility to Disturbance from Hunting"

Evidence presented every year by volunteer rescue groups, together with the evidence we present in this document, including by way of data obtained through Freedom of Information, shows the unacceptable impact of bird hunting on protected and threatened species.

By continuing to allow recreational shooting of ducks and quail at so many locations it can't possibly be monitored, GMA is at odds with the GMA Act, and with any attempts to enhance public confidence in its effectiveness.



Above: Whistling Kite, protected species, found illegally shot during duck shooting.

9. Shooters' knowledge gaps – a further risk to protected species.

According to GMA's recent knowledge surveys:

- Only 42% of hunters of all animal types got a general knowledge question on personal safety correct.
- Only 37% of duck shooters were able to correctly answer a two-part question on wounding.
- Only 20% of duck and quail shooters were able to correctly answer a three-part question on identifying game species.
- Only 13% of duck shooters correctly answered the question on dispatch of downed birds.

10. Unavoidable Wounding Rates

Generally the duck wounding rate is referenced as being anywhere between around 25-33% ¹¹, although GMA's own Wounding Reduction Action Plan suggests the wound rate (non-kill) could be as high as 80%. See below:

Based on GMA's data and descriptions in section 5 of the WRAP: To calculate the "crippling ratio" (number of birds wounded for each bird bagged) based on first year ducks (GMA, Monitoring Trends in Waterfowl Wounding 2022, p2):

- Percentage x-rayed with shrapnel = 7.5%
- 2022 harvest = 262,567
- Estimated duck population at season start 2.9m (according to GMA's helicopter count)
- Harvest rate = harvest / population at start of season, so 262,567 / 2.9m = 0.09
- Crippling rate = wounding rate / harvest rate, so 0.075 / 0.09, = 0.83.

Whilst this figure may seem high, the crippling rate reported in Denmark prior to their robust testing measures, was 1:1.

It should be noted the wound rate is not possible to resolve. It took the Danish government a quarter of a century to reduce their 1:1 wound rate down to 10%. If Victoria were to implement the strict testing which the Danes did (and frankly given the apathy demonstrated by Victorian shooters to accuracy testing, it is likely to fail), it would be the year 2047 before we got to 10% which incidentally still means at least 37,000 wounded birds each year (GMA harvest data).

^{*}NB this does not account for the birds that had already died from their injuries.

¹¹ https://www.ava.com.au/policy-advocacy/policies/hunting-and-fishing/waterfowl-hunting/

11. Lack of cost-benefit analysis or social/economic impact studies on the wider community.

One in every four Victorians now lives regionally, with an increasing number of metro visitors to our regions. Yet there has never been any risk assessment, not even desk-top studies to attempt to consider the impact of hunting on the 99.8% of Victorians who do not shoot birds.

In the absence of studies into this critical issue by the government or GMA, RVOTDS has run several <u>surveys</u>. Our <u>latest</u> (involving 821 participants directly impacted) highlighted the following:

- More than half said they had concerns for safety due to (largely unmonitored) duck or quail shooting occurring nearby.
- More than half said they had suffered stress or anxiety due to bird shooting nearby (either because they lived near it or were in the area).
- Over a quarter said they had witnessed what they believed to be illegal hunter behavior such as trespass, littering, shooting in the dark, leaving wounded birds, shooting protected species, removing habitat, leaving campfires unattended etc.
- 82% of those who made a report to authorities said they did not feel their complaints were dealt with satisfactorily.
- Over 90% do not believe bird shooting has a net benefit to their community.
- 92.4% believe there are better ways to spend taxpayers money (than support bird shooting).
- Nearly forty percent said they lived within 3 kilometers of bird shooting (within which shotgun noise is audible). Almost a quarter (22.7%) said they lived within 1 kilometer of bird shooting and 16% within 350 meters.

As our surveys show, adverse impacts of bird hunting to community include:

- Inability to work from home.
- Inability for shift workers to sleep.
- Noise pollution (EPA issued a safety warning about the use of gas guns which are not as loud and not used as frequently or for as long a duration as shotguns are during duck shooting.)
- Loss of amenity.
- Lost tourism.
- Distress to children, stock and pets.
- Pellets on roofs which collect water supplies.
- Hunters trespass.
- Safety risks of firearms in public places

Safety Risks

The concerns for safety are valid. Consider the impacts of "coked up shooters" and campers' terrifying nights, of over 30 instances of hunting and firearms offences in a single weekend. The health and safety risks to mental health of noise pollution and feeling anxious/stressed for extended periods of time should not be underestimated.

"The shooting season in its current format is completely at odds with the growth of adventure tourism. How can we possibly manage a safe tourism activity, when a shooter can come and set up on any waterway. The shooters need to be regulated to only be able to shoot in certain areas and keep very separate from other tour ventures. My question to the regulators, is "Who has the right of way" (same as any waterway) Do our paddlers need to leave the water when a shooter is present or does the shooter need to leave. You currently have no guidelines and you have no safety signage to provide a rule for right of way.

There is a liability that must be owned by the regulators when on water activities come close to shooters, firing out into the waters.

I draw your attention to places like the Cohuna Town Lagoon (where we regularly operate), this is within 2km of a town centre, and is used extensively by boaters, paddlers, fishers and even swimmers. How can you possibly add shooters into this mix for several weeks of the year. You have NO warning signs, you have no guidance and you clearly have not stipulated a right of way."

Shannon O'Brien Managing
Director Sydney Harbour
Kayaks Murray River
Adventures

Member of the NSW Transport Minister's Maritime Advisory Council Member

Economic Impacts

The widespread belief amongst regional communities that bird shooting is not of economic benefit is supported by independent economists such as The Australia Institute¹², Dr Kirsty Jones (Monash University) and VEAC Red River Gum Investigation reports which show duck shooting is detrimental to rural economies.

Data just released by Tourism Research Australia (TRA) shows outdoor nature activities continue to be far more popular, and generate higher economic returns, than outdoor sports. Hunting is not classified by TRA as a nature activity. But birdwatching, one of the fastest growing and financially lucrative pastimes in the world, is.

Tourism Research Australia's data recently released for year ending June 2023 shows outdoor nature-based activities remain by far, the number 1 most popular activity outside of social activities such as visiting friends/family, eating out.

Victoria is still running behind NSW and Qld for number of visits, number of accommodation nights, and associated revenue. While \$7 billion came to Victoria, \$14 billion and \$12 billion went to QLD and NSW respectively.

Domestic tourists who birdwatched brought a whopping \$454 million to our country for the year-ending June 2023. More tourists birdwatched than visited the reef or went dolphin / whale watching.

But domestic tourism is only part of the equation. Pre-covid, three times as many international tourists (6.6 million), relished an outdoor nature activity as opposed to outdoor sport. Almost one in ten birdwatched and spent a staggering \$2.6 billion, or 8% of our total international tourism revenue.

¹² https://australiainstitute.org.au/post/economic-benefits-duck-shooting-ban/

Conversely, the latest survey summary report by DJPR showed duck shooting expenditure (according to shooters) dropped 46% from 2013 to 2019. Quail shooting expenditure fell 58%. The recent economic analysis by the Parliamentary Budget Office (PBO) put duck shooters at a potential net spend of just \$4m - 10 m. (Neither the DJPR study nor the PBO's analysis accounts for the costs associated with duck shooting like compliance monitoring, or research, lost tourism, or lost productivity. It is therefore likely the true impact of bird shooting is negative.)

It is ludicrous that less than half of one percent of the population who hunt ducks, have access to do so at so many thousands of our public waterways that authorities can't estimate their number. Hunting has been shown repeatedly, to deter tourism¹³.

"It is well known in the travel industry that any form of animal hunting is anathema to most travellers and generally countries and regional centres have discovered in recent times that there is more financial benefit from 'wildlife viewing' than killing!

There is a worldwide travel industry movement to train staff in educating clients on 'Not riding or harming wildlife' at all and many of these so-called tourist attractions have been or are in the process of shutting down.

Regional centres would see more tourism financial benefit by changing their mindset to promoting wildlife especially as bird watching is becoming more and more popular."



In closing

<u>In 2020, fifteen organisations</u> including leading conservation, environment, regional and animal welfare groups provided statements / submissions to GMA calling for a season close. They were ignored.

In 2021, Over 44 major business, union, environment and wildlife organisations signed on to our "Alliance" advertisement which ran in several major newspapers. They were ignored also.

<u>In 2022, the number of First Nations Clans, business, union, environment and wildlife groups willing to publicly support our stance grew further – to 91.</u> Their members and supporters number in the hundreds of thousands. It's time GMA properly considered community.

The GMA should, in line with its functions and obligations under the Act, recommend closure of the 2024 duck and quail shooting seasons until all of the serious adverse impacts evidenced in this submission are effectively removed.

¹³ A Poll conducted by UComms found most people would avoid holidaying in an area where there was shooting. Recent research conducted for RSPCA supported that finding.

Appendix

Community Trust in the GMA - Why it falters.

In 2021 we witnessed a government backflip on bag size, from 2 to 5, apparently based on a first ever helicopter survey. We are still waiting on the key "evidence" GMA used in their decision. RVOTDS requested it through Freedom of Information in 2022. Despite the Office of the Victorian Information Commissioner ruling the documents should be released as they were in the public interest, to this day GMA refuses to do so, and has instead applied to VCAT – at taxpayers' expense— to fight their release. So much for "transparency".

GMA never includes information on impacts to threatened species, the environment or community, in its "season considerations". Similarly, GMA dismisses all relevant evidence put to it, in its recommendations to Ministers. Despite these being issues the regulator is tasked with considering, it could not appear less interested in them.

GMA is aware that two wetlands in Mildura were closed to duck shooters for safety reasons in 2019. Yet GMA has refused to consider making recommendations to close other shooting wetlands despite repeated community (and council) requests. This is even though there are so many thousands of public waterways open to shooters they can't possibly be monitored. Nowhere in the GMA Act, nor any other relevant legislation, does it state that GMA cannot recommend closure of wetlands to shooting due to impacts on the community.

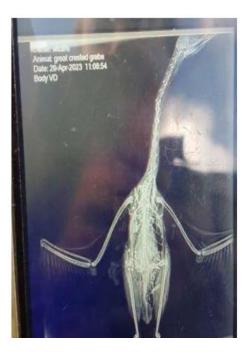
GMA says it's not its responsibility. But the Act appears to say otherwise.

GMA is unable (and unwilling?) to manage a large percentage of complaints made to it. GMA does not include statistics on many complaints made to it, including landowner complaints, in its recommendation to Ministers, conveying a message of shooter "compliance" which is false and misleading.

Unfortunately, many members of the public do not bother making reports to GMA about illegally shot non-game birds, because unless those members of the public managed to obtain photo ID or licence registrations of the offender (that is, likely put themselves in danger), the regulator dismisses the incident. See the example below of a little Grebe that was proven to have been shot.



Grebe chick found illegally shot at the 2023 duck shooting season – handed to GMA with evidence, but the case was dismissed.



This was GMA's response:

On 29 April, the GMA was contacted by a veterinarian to report she was in possession of a Grebe that had been found by herself and two others on the shore of Lake Bael Bael on Thursday 27 April 2023.

It was organised with a GMA Officer to hand the grebe over, as she had just conducted an X-ray on the carcass which showed 7 shotgun pellets lodged in the body of the bird. A mountain duck was also handed over at the same time. The GMA officer was informed that the Grebe had been located in the reeds. The bird was stored securely at the Kerang Agriculture Victoria depot while inquiries were made based on the information provided to the GMA by the veterinarian. The inquiries were not able to produce evidence as to whom may have shot the bird and the case has now been closed.

Regards

Chief Executive

www.gma.vic.gov.au

Regional landowner complaints have not been followed up. GMA has shown little if any interest in impacts of hunting to regional communities, in suspected illegal activity, even complaints about what appears to be improper conduct of GMA staff. Instead, our members have felt dismissed, even bullied by GMA.

We acknowledge Victorian Traditional Owners and their Elders past and present as the original custodians of Victoria's

Add to this a failure to keep any real data on what protected and threatened species are collateral damage in duck shooting, you can see why community lacks trust.

This year once again, the regulator appears to have cherry picked information it will "consider", emphasizing the IHM (which virtually guarantees a bird shooting season irrespective of environmental or other factors) while failing to mention the IHM's limitations, and de-emphasizing (even omitting to mention,) the key points of EAWS.

With this history, we have little confidence that the GMA will provide an unbiased recommendation and we ask the GMA Board to take full ownership.

Please note GMA's use of language also adds to the perception they are not "independent", but rather an advocate for the shooting lobby. The word "harvest" is improper use of the English language according to at least six different dictionaries. GMA must replace it with "Kill". Similarly, referring to bird shooting as being of "economic benefit" or "popular" is factually incorrect and highly misleading.

Questions for the Board

- Where does it state that GMA can only consider environmental factors when making recommendations to Ministers about open/closed seasons or public land open to hunting?
- What has GMA done to monitor, conduct research and analyse the social / economic impact of game hunting since its inception in 2014? (GMA Act s6 h).
- In the 2020-2022 SOE the Minister expressed her expectation that GMA would build its knowledge of the community effects of hunting. Could you please advise how this occurred in the context of all the associated surveys and petitions we have provided to GMA?
- On p.9 of your Annual Report you state "The impacts of hunting on non -game species, and on the environment is considered in our decision making". However there is nothing mentioned about impact to non-game species or of lead or plastic shotgun components in GMA's latest "Season Considerations". Could you please explain why? Will it form part of GMA's recommendation to Ministers, as it hasn't in the past?
- GMA's Annual Report lists "field surveys" of game ducks and stubble quail. Could you please advise who undertook / participated in these surveys and how many were hunters / associated with hunting, compared to how many were from BirdLife Australia?
- The 2022/23 GMA Business plan refers to a "revised stakeholder engagement strategy, ie a stronger focus on building connections with regional communities and traditional owners." Could you please advise which traditional owners and regional communities have been engaged with and who at GMA will do the engaging the Board? Are the details and progress of this engagement strategy public?
- In her foreword in the Annual Report, the Acting Chair refers to GMA's "commitment to transparency". We understand the Acting Chair is aware that GMA has applied to VCAT to prevent release of documents which OVIC ruled were in the public interest. How does she justify the VCAT application and associated costs to taxpayers?

Letters

Duck hunting effect out by a country mile

Imagine if farmers had a scientific model to maximise their production for the next 50 years. Ludicrous?

But shooters are crowing about a new (taxpayer funded) computer model that claims to do just that for duck "harvests". What a waste of taxpayer funds that should be spent on our roads or biosecurity.

There's also a computer model to predict bag size. Last season it was so far out that the "harvest" was up to 68 per cent over the "sustainable" limit.

It's based on the northern hemisphere assumption that changing the season length won't change the number of ducks killed.

That worked well in Australia, didn't it? These fancy computer models delight the armchair scientists in the hunting fraternity.

But Professor Kingsford is famous for his statement that duck "rebounds" after rain are like a tennis ball – getting smaller each time.

The latest Eastern Australian Waterbird Survey shows that is clearly the case after the recent La Nina cycle.

But sustainability is not the only issue in duck shooting. Most regional folk are sick and tired of the cruelty and the disruption to our family and business activities.

We trust the government will act quickly to implement the ban recommended by its recent inquiry – or was that just another waste of taxpayer funds?

Karen Mander, Castlemaine

Summary of 2023 Community Survey Responses

Negative Impacts of Bird Hunting: Environmentally, Socially and Economically

We can hear shooting from our place of residence. Stressful to be woken by what sounds like cannon fire and to know defenceless ducks are being killed maimed and their habitat disturbed. Our favourite past time is kayaking and bird watching at Cairn Curran which is not possible during duck hunting season.

Being woken by gunshots pre-sunrise, the distraction of the shooting and distress of knowing our wildlife are under attack is greatly detrimental to my ability to concentrate while working from home.

Duck shooting restricts my ability to travel to wetlands during duck season. Observing wildlife at wetlands is a major part of my life.

I have duck shooters trespassing onto my private land to shoot over the irrigation channels and dams, putting my livestock and children at risk of flyer pellets and downright reckless shooting. They also leave their shotgun was laying around, where livestock may find, chew and choke on them.

Constant early morning gun shots upsetting the dogs and myself. Dead ducks left floating in the creek. Shotgun cartridges left on the creek bank. Gunshot pellets landing on our roof from shooters shooting into the air on the creek at the back of our house.

I am uneasy about what is going to be shot along with the ducks. My cat was taken to the vet to have pellets removed and was ill for some time.

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. I think this is disgraceful as we are the rate payers not the blow in neanderthal.

We live on a large rural property. Shooting impacts us through the disturbance to animals living with us from our dog who is terrified of gunshots, through to our horses, and scaring native animals causing panic. We run a rural accommodation retreat offering peace. This is shattered by gunshots.

It's extremely distressing hearing the gunshots. We live in an area where there are lot of ducks and to know they are getting slaughtered and/or injured and left is horrendous and bad for our mental health. We have families of ducks that come and go from out property, they trust us, I fear that if they go their lives will be taken. It's heartbreaking.

I am an avid bird watcher and photographer and I have witnessed duck shooting at Cairn Curran reservoir a few years back and all the birds, not to mention the ducks were so distressed from all the noise of the guns going off...they were flying aimlessly and criss crossing the reservoir without knowing where to go next....It was very sad and distressing to watch! I even sent a photo with an email to Daniel Andrews who (of course) never replied!!

I live on the Estuary Estate in Leopold. I hear the guns going off all the time during duck shooting season. It makes me feel sad, depressed & angry knowing that these poor innocent animals are being killed & mainly for recreational purposes. How can people be so cruel. If they want to shoot something they should stick to clay pigeon shooting!!!!

My family and myself used to live close enough. Every time it was duck shooting season we hated it because of the cruelty and it had a big impact on our 2 dogs who could hear the shooting more than us obviously... they we're constantly terrified of the noise affecting their behavior and I guess quality of life as well

I've lived rurally all my life, and have experienced and seen the negative effects of duck shooting for animals and humans. I hate this time of year, it's dangerous for all involved or nearby and so cruel. the emotional trauma affects both me and my husband badly.

We live in Regional Victoria for its beauty, the sense of community and peacefulness. We love the birds and animals around us. In the duck shooting season this is taken away from us. We are exposed to the carnage and see shooters with dead bodies of the creatures we love. Why put our communities and creatures through this each year

Duck shooting gives me extreme anxiety and depression.

The noise on the duck shooting morning sounds like world war three and goes on and on. You wonder what environmental damage is been done. We haven't been able to get a bike path put in through the Morass between Paynesville and Bairnsdale, even though Gippsland water approved it because the council said it was not environmental but duck shooting is allowed there every year and then for all that time the public are not allowed in the area. One wonders how duck shooting is environmental but riding bikes is not.

The sound of gun shots and seeing ducks flee to neighbouring areas is very distressing. The gun shots also cause much distress to dogs and other animals in the area.

I have had to end holidays as I could not stay in area where hunting was happening as it was too distressful knowing this was happening

The sound of gun fire is very stressful. We chose to live here because of the wildlife, including the abundant bird life. No one needs to use guns except professionals when other methods of putting an animal out of its misery cannot be used. No Victorian should be killing anything for fun/ sport. So wrong.

Have hit injured water birds on the road that can't fly out of the way due to damaged wings etc, always happens on the opening weekend of duck shooting, idiots shooting on private property dams. Have had birds that scoot across the ground from my dam making them easy pickings for cats and foxes.

I have thoroughbred agistment and rehabilitation at my property, and the shooting absolutely freaks the horses out, and they risk serious injury through galloping into fences in fright

After camping as a family we were extremely scared when people were suddenly shooting nearby and making horrible sounds. It was frightening to my children and very distressing. We found an injured duck the following day, which passed away with us in our car.

We live on the Murray River and the gun shots are frightening and stressful to our horses & alpacas. Also, we have several bird species living on our property and the slaughter and gun shots play havoc with their nesting, habitat and normal routines

Spoilt a holiday with shooters nearby taking over the area, loud and obnoxious, we had to leave and could not stand the sound of those poor animals being slaughtered

Duck shooting season always brings anxiety and distress to my family and others in my neighbourhood of Leopold, our suburb is part of the lake Connewarre and Reedy lakes system.

Early in the morning the sound of shots wake my home it's a destructive sound of a terrible activity which you know is happening so close to well established suburb the sound is loud and you have an unnerving feeling of the suffering and death of ducks and other wildlife.

We need to seriously help and speak out about the numbers of dwindling ducks in this horrible shooting season also acknowledge how close to extinction some are becoming. How can shooters make a distinction of what there shooting in times of diminished light, simply you can't.

Duck season is a blood sport and should be banned, many other states in Australia have already banned this archaic awful activity it really doesn't make sense to continue to allow the season to continue for the very few that partake.

I went camping and unfortunately didn't realise I was near a duck shooting area. Consequently, we went home.

I live on a farm - I see ducks on the dams all the time - they are safe there - i forbid people to shoot on our land - the sound of guns is disturbing for our dogs, cats and livestock

It negatively impacts my ability to enjoy walking along Lake Colac. The constants sound of gun fire reverberates across the lake and knowing that our beautiful waterbirds are losing their lives as a result of that gunshot is really distressing.

I live near Lake Connewarre. I hear vollies of gunfire in my house. I can't walk my dogs at the lake for 3 months of the year.

My family feel deep stress and avoid holidays near where these people shoot birds.

I frequently visit the 'heart morass' near Sale ... and find the diversity of 'life' in general in that area quite astounding .. this of course includes many water birds ... living in peace ...briefly . I feel that the grief and trauma that I share with these creatures as they are being killed/ maimed/ absolutely for no reason except "sport" ... affects my mental health terribly , as do many , many injustices that sentient birds and animals suffer from the wanton selfishness of some humans.

Every start to duck shooting I feel sick in the stomach. i absolutely have mental anxiety when duck shooting occurs. We live close to Lake Connewarre a region with a "Game Reserve" classification.

I live on the Murray river and have seen boats with men dressed in cammo brandishing weapons whilst our children are enjoying water sports. Have also had to deal with the awful sound of guns blaring. It's not regulated at all and hunters don't give a crap about other residents or tourists. I've also seen dead animals left floating.

Knowing it is happening up the road from us fills me with dread, and anxiety & helplessness as the birds are needlessly killed.

The sound of shooting makes me feel nervous and anxious. I live in a bush area and I don't want to use the bush (cycling/walking) when I hear shooting. There are many feral species where I live such as deer whose carcasses have been left far too close to homes, which of course brings feral dogs in closer too. Not sure everyone shooting out in the bush is actually hunting for their own food.

We can hear gunshots from our home and it is scary. We have to deal with the thought of what cruelty is being inflicted these poor birds.

I live within earshot of the gunfire. I find it distressing and upsetting. Killing native ducks for sport is repugnant to me. I live on the Gippsland Lakes and love the wildlife and beauty and serenity of living close to nature. Duck shooting makes me anxious, upset and fills my days with dread thinking of poor defenceless animals whose habitat has been invaded. My poor dog is scared of the gunfire and this is distressing too. My friends and family from Melbourne will not visit during duck shooting season as it is too upsetting and unsettling. We all hate it.

I have seen the dead & dying birds after they have been shot. I was grief stricken.

Each year I'm affected by duck/wildlife shooting, simply by knowing it's happening or by the gun shots I hear.

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 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.

seeing ducks still alive but in agony - shot but not dead being dragged from the waterways which has been their home - so distressing ...and in the name of sport. Our local lake area turned into a shooting range - our peaceful space ripped apart. Ducks are peaceful and help to improve our waterways - seeing them scared away by the noise or worse killed is confronting.

The emotional distress leads to sleepless nights and general anxiety and personal distress. Having recently discovered quail on a family property and realising how beautiful but vulnerable they are, not just to predators but now shooters, is too much to bear. These fragile little birds need to be protected.

The term "recreational hunting" is incomprehensible to those of us that love these birds both quail, ducks and all the other birds that are shot during duck season.

What right have we to slaughter these birds and destroy our bird populations. It must stop.

I live near Lake Eildon and wildlife is a very important part of our region. Shooting birds and animals is not only awfully cruel and often leads to injured birds/animals left to die in agony, it detracts from human enjoyment of the lake. The sound of gunfire is very distressing and disturbs an otherwise peaceful environment. Shooting is not a sport and should never be considered one. Please help this senseless slaughter STOP!

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.

Myself and some family members have been negatively affected emotionally by local duck and quail shooting. We can hear the firearms in the distance and it breaks our heart to think of these native birds being killed or harmed to lie suffering with horrendous injuries in the name of sport! It is cruel and unnecessary and it needs to be banned.

We live close to Lake Connewarre and since our 28 and 30 year old girls were pre-schoolers have been woken in the early morning of ducking shooting season by the constant sound of gun fire and, by association, the distressing realisation that huge numbers of ducks are going to killed and maimed all fir the pleasure of people who think that it's OK to kill animals fir the fun of it. Very upsetting for children and adults.

I live nearby an area where duck shooting takes place. The shooters usually start before the allowed time and you constantly hear the guns going off.

I also remember a time that my parents found a heap of carcasses dumped in the bush that certainly proved the shooters were doing it for the sake of just killing something. Duck shooting just isn't necessary.

Having walks in regional Victoria and hearing shootings has been an extremely stressful experience for me and my family, as well as causing us to turn back and leave the area in fear of accidental shooting.

We live in a rural area and our main recreation is bird observing. For weeks each year, we dare not go to many of our favourite locations because of the cruelty and danger due to duck shooting. Please make it stop.

I teach VCE Environmental Science, Biodiversity is studied at year 12. Strong scientific evidence predicts Avian collapse due to Climate Change. This is beside the impacts of habitat loss, predation & the senseless slaughter in legal killing. Knowledge of these facts impacts my students mental health. Not ok

We are keen field naturalists and birdwatchers, and members of local clubs. Over the decades we have witnessed the decline in habitat and decline in numbers of most birds including the ducks 'legally'. The decline in rarer species has been dramatic and of a huge concern to all members of our two clubs.

Suffer anxiety & stress that prevents me from going on nature walks because of fear that shooters may be in the area - as I have no clue as to where they may be and we have lots of wild beautiful ducks in our area

I have been out kayaking and engaging in other outdoor activities and had to put up with shooting. I do wildlife rescue and have had callouts to injured birds in backyards near wetlands and the birds have been x-rayed and found to have pellets, plus birds with obvious gunshot injuries. My family and friends are concerned because of the emotional impact rescuing shot birds has as it is preventable and cruel and therefore impacts me greatly.

Profound distress from the sounds of shooting.

We cannot visit friend in Gunbower during duck season due to pellets landing on his roof.

Unfortunately ended up camping in an area where there was duck shooting and it was so scary. I was scared for our lives, not knowing if we would end up in the line of bullet fire. I've also seen how aggressive duck shooters are and how intimidating they can be. It was also very noisy very early in the morning.

I have seen ducks still alive that have been shot but not killed brought into a Veterinary surgery where I was waiting for an appointment with my dog, the ducks wings half shot off

Our family was traumatised while visiting Victoria. Will never go down there again.

Constant feelings of anxiety at the needless suffering of wildlife. Hearing the shooting in the distance when out walking...worrying about the children.

I operate a business from home. Occasionally my clients will need to visit my premises in order for them to access my services. During duck shooting season I advise clients not to visit for their safety and for fear of the traumatic sights they may witness.

Nearby duck shooting makes the wetlands and public recreation areas unsafe for my guests. In the 2022 season I had gun shots close to my house 7.30am Sunday, I closed my business until the end of the season and was stressed and worried about further shooting and trespass until the season ended. It is extremely distressing hearing the gun shots and knowing that our beautiful water birds are being killed.

We are personally affected as the sound of gunfire indicates that someone is wanting to shoot the very birds that we care so much about. It is a very real reminder of all the things that are so wrong with imbalance of society and environment that is causing such devastation on our planet.

We feel unsafe when going about our usual business in paddocks that are adjacent to the Richardson River where bird hunters like to stalk their prey.

Our usual recreational walks around local lakes and waterways are curtailed due to the fear of accidentally being in the firing line of gunfire.

I enjoy walking around Lake Connewarre and I get very distressed when i see and hear shooting there and I cannot do my walk. I believe is grossly unfair that the public is denied access, and I see evidence of suffering and wounded birds. The wetlands should be a sanctuary, not a killing field.

I own a property for conservation purposes under Trust for Nature Covenant and duck shooters enter it by foot or 4-wheel motorbikes for duck shooting despite private property signs. I am unable to patrol it and ought not to have to do it. I feel always very sad and distressed hearing the shooting and seeing birds fly away in distress. (I live on the Murray River floodplain.

I am a descendant of the Kurnai. These birds are our property rights. They are also our ancestor's identity. Shooting them you're shooting our people.

Stress, anxiety levels rise. Feel unsafe in kayak on waterways. Confronted with aftermath of duck shooters dumping heads, feathers in waterways. Have come across duck hunters illegally camping and often intoxicated.

The nearby gunshots cause distress to my animals.

We live adjacent to a wetland that is now a game reserve. Our livestock and pets are frightened by gunshots, we've had shotgun pellets land on our roof on more than one occasion. I've had 2 horses shot over the last 12 years, one fatally. The bush is a no-go zone for myself and the neighbourhood kids during duck season as it is unsafe.

One of the joys of country living is the accessibility of walks that allow the spirit to understand the union of the land, its fauna and flora to the wellbeing of us all. That a minority are able to destroy aspects of this life for a sport is unconscionable in this time of man's history.

I'm a keen camper and bird watcher, own a small van and wish to support rural communities while spending time in the natural world. I'm deeply distressed throughout the shooting season by the knowledge such brutality and suffering is inflicted on the birds I love. I feel this behaviour is reprehensible. Our environment and biodiversity needs respect and protection not this appalling behaviour dressed up as sport.

Illegal shooters on our property

My parent's farm is hilly with river frontage located in Acheron, Vic. It overlooks the river & river flats of the Goulburn River on the other side. Duck shooters every year enter the river flats & fire at the ducks taking aim upwards & towards their farm as the ducks try & fly off. Bullets have passed by me as I was riding my horse (at 8.30 or so) in the morning. They seem to shoot indiscriminately & for hours after dawn.

We live and work on a rural property where our farm animals, staff, volunteers and neighbours fear stray bullets and dead native wildlife every duck shooting season. We spend all our spare time and a significant portion of our business earnings improving our properties' native landscapes through Landcare, Melbourne Water etc revegetation partnerships to PROVIDE habitat for and PROTECT ducks, quails etc. What's the point in doing all this work when a small self-serving minority of Victorians turn around for a few months a year and shoot these birds for "sport"?!

Higher stress, anxiety. Gun shots close to home. Can't kayak during this time. Impacts all wildlife. Sight of duck heads and feathers dumped in waterways distressing. Intoxicated hunters illegally camping. Hate this time of year!!!

The destructive nature of this event for our environment is ludicrous. I have collected kilos of cans, bottles, gun cartridges and general rubbish from along Joyces Creek as well as the poor bodies of wounded birds. This must stop.

My family lives on Reedy Lake. I'm now 47 but for as long as I can remember, we've been woken by gun shots throughout the season and well before season opening time. Wounded birds have landed on our property. Shooters have left rubbish all over the wetlands.

We are land for wildlife with many native birds on the property, terrified by the deafening sounds of gun shots. Shooters have shot into our property.

It's horrific. Every single year.

Disturbance from the sound of nearby shooting when staying on our bush block. The presence of unauthorized shooters coming onto our property without permission. We modify our birdwatching activity to avoid wetlands during the hunting season so do not spend money at local businesses in regional areas at this time.

I feel distressed when I hear the guns going off in the distance, knowing that many native birds will be killed and injured. I am involved through my work and my volunteerism in habitat restoration for our local fauna (including birds) and I feel discouraged and disheartened that the government condones slaughter of our wildlife.

The noise is distressing. Every shot brings with it the pain & suffering these creatures are subjected to.

Personal health and safety risk and trauma associated, no one wants to visit, unsafe, have to deal with trespassers, breech of covenants and licences and little help from stat. Bodies

I am very stressed and upset by the gunfire and subsequent death of birds.

Living close to the Gippsland Lakes system the sound of constant gunfire in the mornings is so distressing and knowing that our precious native birds are being killed while others are left suffering from gunshot wounds causes me grief and heartache.

There is duck hunting at our local reservoir. Can't bear to even go there and see the carnage.

Shooting within earshot of our town causes extreme anxiety and stress in our dogs, and makes me anxious about stray shots hitting people

I cannot have guests stay in my bed and breakfast cottages, hold revegetation days, collect plants for my distillation business or have family and friends over.

Hearing guns out in the countryside makes me scared to visit an area, so we don't go. We turn back home. I like to visit waterways and walk but I'm terrified of accidentally getting shot (as has nearly happened).

Holidays in east Gippsland hearing gun shots. Very stressful knowing what this means for a bird. Knowing what is happening to the birds. Knowing what they are going through. A living hell for the birds and us.

Bellarine Peninsula wetland networks and waterbird habitat should be protected as per The Ramsar Convention. Species extinction and/or great reduction in numbers is of great concern to me. Taxpayer dollars should not be spent on 'blood sports' like duck hunting that provide no great benefit to the majority of the community. When was the last Brolga seen in the wetland areas. The shooting of native ducks is a blight on our community and the collateral damage to other wild birds unconscionable.

I went to visit a wetland nearby forgetting it was duck shooting season. Autumn mornings are often particularly beautiful so I drove to Lake Bolac only to hear gunshots whilst the sun was just cresting. My first vision of the day was watching birds fall out of the sky. Less and less are there places to go where nature is allowed to rest from human interference.

I was visiting a lake for a hike and there were shooters in the area. I am from Belfast and it was extremely triggering and frightening for me as I grew up during the troubles and it reminded me of the terrorism that happened.

Every year we dread the war like feeling the encroaches upon our activities of daily living. we cannot sleep, we cannot entertain, we hardly run our business. after covid, after flooding it's a slap in the face to have duck shooters near the house.

I have several friends living in the bush who constantly complain about shooters trespassing, damaging fences, leaving a mess and disturbing the quiet. They also are concerned about stray shots.

Constant volleys of gun shot.. noise unbearable at times. Witnessing terrified wildlife taking off. It distresses me enormously. My son witnesses shooters hiding in bush land when he is working.

I hate the noise, the disruption to other wildlife particularly birds, my dog is petrified and must be kept inside, the hoon driving of the shooters boats,.I believe the shooters are trespassing but feel totally intimidated by their presence six cars and a camper van within 300 meters of my house. If I was to report this would be obvious as mine is the only house within a couple of kilometres.

shooting in public places is barbaric and blocks non shooters from enjoyment.

its next to my house, i know these animals, i love them, i watch them, its distressing to know every morning and night right near me ducks are being hunted and i can do nothing to protect them

Reluctance to travel in those areas.

Those of us who respect the Victoria's natural environment are distressed and physically sickened by the stress resulting from the government endorsed killing of native birds.

Trespassing onto our property, shooting from the roadside, shooting from adjoining properties over our property, frightening horses causing injury. Duck shooting induces very high stress levels in our family due to the behaviour of many hunters who have no regard for the law, who do not humanely deal with injured animals and who have, on a number of occasions, become aggressive when challenged (while on our property!!). The suffering of the ducks, who we love and encourage onto our dams and property, is shocking.

Growing up on Reedy Lake, the rest of the year was safe for my brother and I to visit and enjoy the wetlands and observe our native wildlife. During duck hunting season, we could no longer visit the lake for fear of being shot, abused, witnessing the mistreatment of bird life.

Shooters have shot into our property, well away from the lake. They have left rubbish all over the wetlands including thousands of shotgun pellets, polluting the waterways. Dead, unwanted, often illegally shot birds are left. Shots often occur well before legal shooting time. Native wildlife on our property are frightened by shots. It's really awful.

Finding a black Swan with a pellet in its neck dead on our property and finding other native birds that had been shot, it is so distressing and depressing

We live close to several water ways which we visit regularly but NOT during duck season because it is far too dangerous. I am fearful of being shot.

I am currently moving my livestock away from our boundary paddocks in preparation for Wednesday. There will be no more kayaking or bush walking until it is over... except for careful trips to retrieve injured birds.

Feeling unsafe in wetlands, seeing litter around the areas and increased fox activity due to the dead native wildlife Gun shots heard very close during the day. Frightens the dog considerably and me.

Traumatised on a visit to Victoria to the point of our granddaughter having a panic attack. We had to put her in hospital for two days.

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.

Shooting over our property boundaries and frightening night time shooting close to our home. Scaring pet animals by close shooting. Wounding birds without collecting to humanely kill or seek vet assisted healing. Very distressing to see wounded birds on the water.

Over the years duck rescue has cost me a lot financially and has meant I've spent many weekends and other holidays committed to duck rescue rather than my own rest and recreation.

It is emotionally draining and upsetting dealing with such an injustice.

It upsets our family and our small children. We and our local community put up signs to tell traffic to slow down for ducks

in our Woodend area. Knowing people are going out and shooting ducks and other endangered wildlife defies common sense, logic and humanity. It's deeply distressing.

We don't visit local wetlands during duck hunting. Those big burley blocks in camouflage are seriously threatening.

The tranquillity at my parents normally peaceful rural home is shattered every year, with the sounds of firearms, often injured and dying birds are located. This is followed by months of silent days where there is no bird noise, and no birds to been seen flying, swimming, walking around. Litter and illegal camping and loud socialising also occurs which interrupts their ability to get sleep, often with after dark shooting of other wildlife.

Stress, anxiety and shame that it persists in this state. Trust is an issue around why this good state government allows duck shooting to continue.

Personally, it has caused, and continues to cause, immense stress. I have to research when and where the duck shooting is every season (in case it changes) to ensure I don't travel to, or through, any of those regional areas. I donate regularly to support those who are going out in the fields to try and put injured animals out of their misery. I am ashamed to call Victoria my home, given so many other states have banned the sport years ago.

I don't know what they are hunting but I scream out "QUIT IT" when I hear gunshots near my property. My livestock (sheep and horses) are nervous too and as I have a km of Kangaroo Creek on my property there are many ducks. I don't feel safe to walk down to the creek to confront the hunters, who appear to be on the other side of the creek) in case I accidentally get shot.

We can't move around our farm without being afraid of being shot at by duck shooters.

when you hear a gunshot very close by you have a lot of different concerns - then add the knowledge an animal may be hurt and the arrrogant stupidity of the fools with big guns it is very concerning - if they can't shoot a duck they then blast a road sign - DDDRRR???

The number of ducks on our property lessen which makes us sad as there aren't very many around anyway.

It diminishes the trust in the Victoria Government.

It has distressed us all. Because of the gunfire I don't want to be outside or down on the lake. This significantly impacts my way of life as I always watch the sunrise and sunset over the lake each day and love to be outside gardening when

I'm not working. I cannot bear to wake up to this awful sound knowing little defenceless birds are the target of the guns. I watch birds because I love them and they bring joy. I'm filled with complete sadness during duck season and in the months leading up to it.

The children are scared when they hear guns going off nearby. There is a danger of stray bullets.

I find it emotionally stressful to know that are shooting often without knowing what they are shooting. In my area livestock and pets have been killed and maimed by illegal shooters.

Unable to visit areas that i regularly walk in and engage in wildlife photography (birds) and landscape photography.

Friends can't go across road from their property to Lake without excessive drinking and threatening behaviour by loud groups of men. We find spent bullet cases in the park. Our scout group no longer goes to the lake as the atmosphere has become toxic and misogynist with male hunters there. I was warned off by Parks Vic from doing my TAFE project there as it is known as being unsafe due to hunting.

The rubbish and human waste toilet paper, left trees cut down for firewood, campfires still going, unable to visit our lake whilst these frightening men are around.

The dam on my property was always teeming with birdlife, but over the last 10 years the numbers have plummeted.

It upsets us and creates a disturbance in our beautiful tranquil part of the Otways.

We now avoid bushwalking or picnicking in any areas where duck shooting occurs. Personally, it's also distressing to know that waterbirds are being killed for fun during the mass extinction/biodiversity crisis.

We don't go near the wetlands when shooting is taking place...it taints the peaceful atmosphere and it is so upsetting to come across injured birds left to die ..it's disgusting

I HATE THE SOUND OF THE GUNS AND THE DESTRUCTION AND FEAR EVERY SHOT IS CAUSING.

As well as my cat being shot the early morning shooting wakes us up and we fear for the other birds in the area. I fail to see how anyone can mistake a pelican or a Swan for a duck.

Constant trespassing, with zero respect or regard for safety for the occupants of the property or the livestock in the paddocks

It means I curtail my normal activities, and don't visit regional areas.

We feel anxious and distressed in the lead up to the season each year. Then very upset at the sound of gunshot each early morning and random other times.

It has caused me significant distress for as long as I can remember (at least 50 years). Affects my family's and my quality of life for a quarter of each year which is as much as 12.5 years of my 50 remembered. Stuff that and stuff the shooters! End it now