

**Submission
No 1585**

INQUIRY INTO VICTORIA'S RECREATIONAL NATIVE BIRD HUNTING ARRANGEMENTS

Organisation: RSPCA Victoria

Date Received: 8 May 2023

Inquiry into Victoria's recreational native bird hunting arrangements

RSPCA Victoria submission

May 2023



About RSPCA Victoria

RSPCA Victoria is a non-government, community-based charity that works to prevent cruelty to animals by actively promoting their care and protection. Since its establishment in 1871, and as member of RSPCA Australia (the federation of eight state and territory organisations in Australia), the RSPCA has collectively become Australia's leading animal welfare charity.

Across the state, RSPCA Victoria's community services include work undertaken by our Inspectorate, Animal Care Centres, Veterinary Clinics, and Community Outreach and Education teams. RSPCA Victoria operates Animal Care Centres across Victoria, providing refuge, care and new homes where possible to more than 14,000 animals every year. Our team of Inspectors works to protect animals from cruelty, receiving more than 10,000 complaints every year, prosecuting offenders and rescuing animals from dangerous situations. Our Education team contributes to prevention strategies by influencing over 13,000 young people each year about the value and importance of animals in our lives.

RSPCA Victoria works to educate the community regarding animal welfare and works with government and industry to ensure the standard of animal welfare and care continues

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RSPCA Victoria recommendations

The RSPCA is strongly opposed to recreational native bird hunting and believes it should be banned well before any 2024 season is considered. RSPCA Victoria has the following recommendations:

1. Based on the high wounding rates, RSPCA Victoria believes duck hunting should be banned due to the inevitable suffering of native ducks.
2. Due to the welfare concerns associated with hunters not humanely killing ducks that have been retrieved, RSPCA Victoria believes duck hunting should be banned.
3. Based on the likely wounding rate of quail, RSPCA Victoria believes quail hunting should be banned due to the inevitable suffering of birds.
4. Due to the lack of hunter education, and therefore the likelihood that hunters are shooting non-target species, including species that are critically endangered, duck and quail hunting should be banned in order to keep all native wildlife safe.
5. Due to the impact of hunter disturbance on breeding and species richness duck and quail hunting should cease.
6. As native bird hunting is already banned in Western Australia, New South Wales and Queensland, and under review in South Australia, this clearly demonstrates that native bird hunting should not continue due to the absence of social license.
7. Duck hunting should not continue due to the long-term decline in game bird population, failure of the species to respond to favourable conditions, and significant risk to biodiversity.
8. Quail hunting must be banned based on the decline in Stubble Quail numbers in Victoria and the additional pressures from hunting during breeding season and habitat loss.
9. Short- and long-term climate outlook modelling shows likely impacts on availability of habitat, abundance and breeding and therefore does not support the continuation of native bird hunting.
10. Due to the direct and indirect impacts of lead ammunition on native animals and the environment, and the continued use of lead shot illegally by duck hunters, duck and quail hunting should be banned.
11. Based on the evidence suggesting there will be no negative impact to the economy if duck and quail hunting was to cease, RSPCA Victoria believes hunting should be banned to allow for greater economic contribution from alternative outdoor recreational activities and an increase in eco-tourism.
12. A ban on native duck and quail hunting will be supported by a very clear majority of the Victorian community.

1. Introduction

RSPCA Victoria appreciates the opportunity to provide a submission to the Inquiry into Victoria's Recreational Native Bird Hunting Arrangements and would welcome the opportunity to present at a public hearing.

While RSPCA Victoria has Inspectors who are authorised under the *Prevention of Cruelty to Animals Act 1985*, the memorandum of understanding between RSPCA Victoria and the Department of Energy, Environment and Climate Action outlines that 'the RSPCA Victoria Inspectorate is not responsible for:

- Responding to animal welfare and cruelty complaints in connection with:
 - i. Hunting activity and wildlife (including in relation to enforcement of any licensing requirements or conditions)'

In this submission we will provide evidence to support the banning of native bird hunting.

2. RSPCA policy

The RSPCA is opposed to the hunting of any animal for sport as it causes unnecessary injury, pain, suffering, distress or death to the animals involved.

3. The operation of annual native bird hunting seasons

3.1 Mechanics of hunting – shotguns

For most of the year, native birds are protected under the *Wildlife Act 1975*. However, during declared open seasons each year eight species of native ducks and one native quail species are permitted to be shot by licensed hunters using shotguns.

The use of shotguns inevitably results in pain and suffering because a shotgun releases a spray of pellets rather than a single bullet (see figure 1).

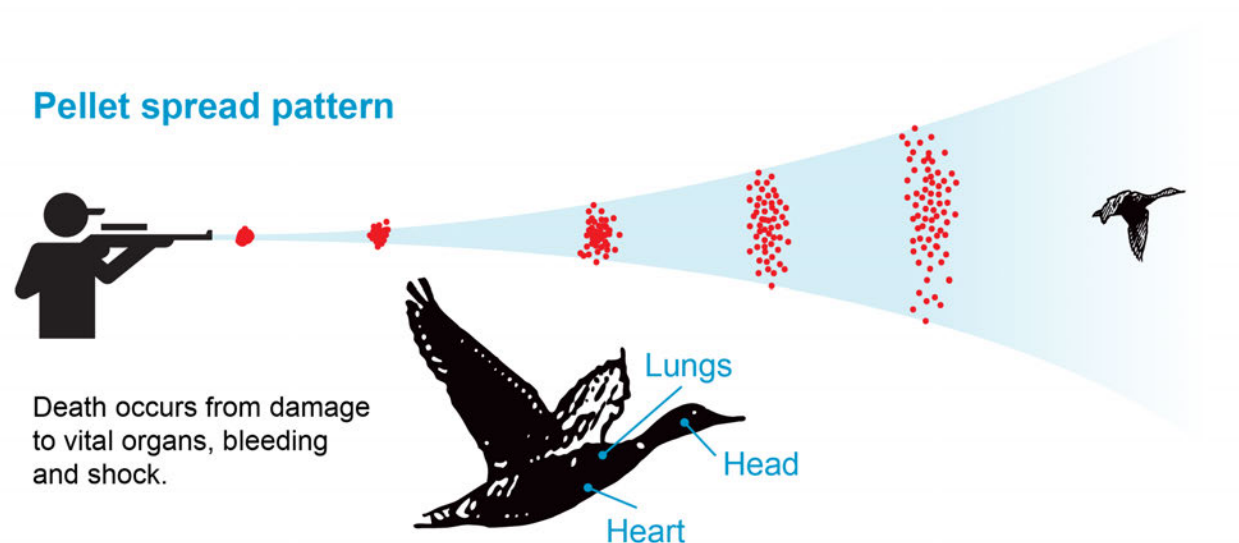


Figure 1 - pellet spread pattern from a hunter shooting a shotgun

To kill a game bird, the bird's vital areas (i.e. brain or heart/lung) must be hit by pellets, but the chance of achieving a fatal shot decreases the further the bird is from the shooter. If the bird is flying alone and shot from a relatively close range, a large number of pellets are likely to hit vital organs increasing the chances of causing death rapidly.

However, if a bird is shot at by a hunter from too far away, the pellets will spread further out and, coupled with the reduced pellet velocity, this will result in the wounding (rather than the outright killing) of both the target bird and the birds surrounding it, inevitably leading to pain and suffering.

3.2 Wounding of native ducks

Surveys of water bird wounding losses in Australia were undertaken between 1953 to 1982, but no recent studies have been conducted. A study that examined the impact of hunting activity on four species of native ducks in Victoria from 1972 to 1977, reported 14% to 33% of birds were wounded but not retrieved ¹. An x-ray study of trapped live ducks in Victoria from 1957 to 1973 reported that 6% to 19% of ducks had sustained embedded shotgun pellets in their bodies from duck hunting².

In addition, studies from overseas have found wounding rates to be even higher. In Denmark, a world leader in hunting research, wounding rates in geese were found to be 2:1 – i.e. two geese wounded for every goose bagged.

¹ Norman FI & Powell DGM (1981) 'Rates of recovery of bands, harvest patterns and estimates for black duck, chestnut teal, grey teal and mountain duck shot during Victorian open seasons, 1953-77', Australian Wildlife Research, 8:659-664.

² Norman FI (1976) 'The incidence of lead shotgun pellets in waterfowl (Anatidae and Rallidae) examined in south-eastern Australia between 1957 and 1973', Australian Wildlife Research, 3:61-71.

The Game Management Authority (GMA) acknowledged in the draft Waterfowl Wounding Reduction Action Plan that research has shown the wounding rate for ducks could be between 6-40%.

Using the reported total harvest figure of 262,567 ducks from the 2022 season and the wounding rate of 6-40%, this would mean that between 15,700 and 105,000 ducks were wounded and not killed outright in the 2022 season. Assuming a median wounding rate of 23%, 60,390 ducks would have been wounded and left to suffer during the 2022 season.

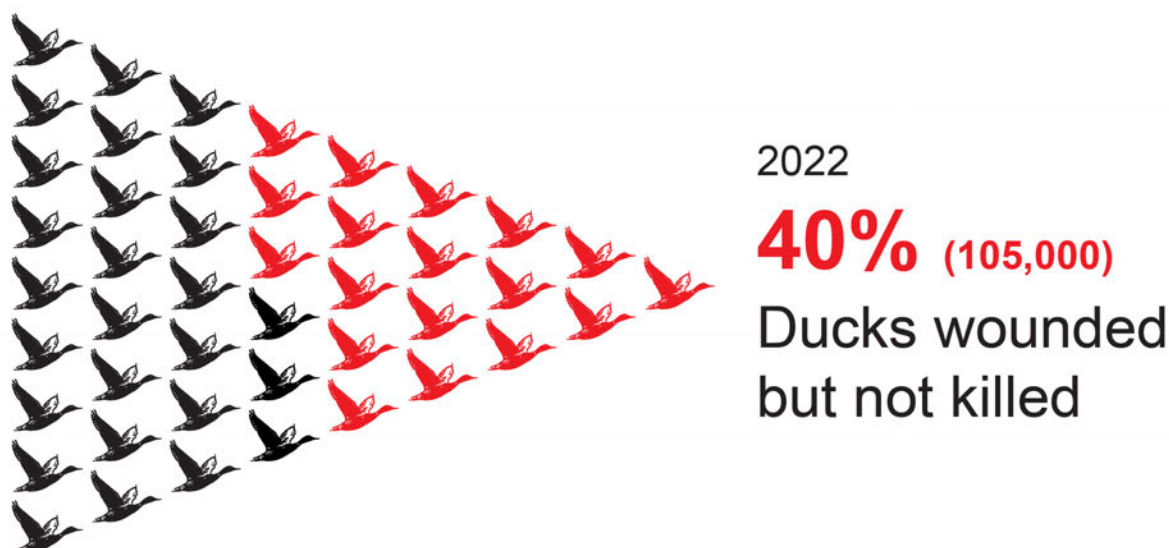


Figure 2 - estimated wounding rate of ducks from the 2022 duck hunting season

Wounded birds not retrieved and killed will suffer; some will eventually die from their injuries and birds with less serious injuries may survive with embedded shotgun pellets.

Wounded birds can suffer from the pain and disabling effects of their injuries such as:

- Sickness due to wound infection
- Thirst or starvation as injuries to the bill often lead to an inability to drink or eat
- Wing fractures
- Wounded birds are also at a heightened risk of being attacked by a predator

RSPCA Victoria believes there is no acceptable level of wounding and does not believe that there is the necessary appetite in Victoria for embarking on a resource-intensive wounding reduction program as it is not possible to eliminate wounding entirely.

3.3 Inhumane dispatch of downed ducks

Regulations stipulate that all ducks that are downed are to be retrieved by hunters and humanely dispatched, in reality; however, this is not the case, therefore prolonging or even increasing suffering by using inhumane practices.

This issue has been acknowledged by the GMA who developed the 'Guidelines for humane dispatch of downed ducks'³ in 2019 in order to encourage better destruction practices. This guide recommends the following destruction options:

1. Use of swatter loads (shotshells with a small shot size that produce a dense pattern)
2. Blunt force trauma followed by cervical dislocation.
3. Blunt force trauma followed by pithing (inserting a sharp, thick needle/probe into the brain)

Options 2 and 3 require hunters to have both hands available to undertake these methods correctly which requires hunters to use a gun sling or to store their firearm. Additionally, without training, it is unlikely that a hunter will perform cervical dislocation correctly, therefore likely leading to even more significant negative welfare outcomes.

Of note, the Guidelines state that 'windmilling' or swinging the duck by the neck around in an arc/circle is not recommended as 'many hunters cannot perform this method in a way that consistently causes immediate unconsciousness and death'. However, based on anecdotal evidence we know that this method of dispatch continues to be commonly used by hunters rather than use of the relatively more humane options listed above.

RSPCA Victoria recommendations 1 and 2:

1. Based on the high wounding rates, RSPCA Victoria believes duck hunting should be banned due to the inevitable suffering of native ducks.
2. Due to the welfare concerns associated with hunters not humanely killing ducks that have been retrieved, RSPCA Victoria believes duck hunting should be banned.

3.4 Wounding of Stubble Quail

When quail are shot with lead ammunition by hunters, deep punctures from gunshot wounds can result in damage to internal organs without causing immediate death of the bird⁴. Those birds that survive from gunshots can endure prolonged, painful deaths. Injured birds become immediately more susceptible to predators as they may not be able to move or fly as a result of embedded shot or fragments.

³ https://www.gma.vic.gov.au/__data/assets/pdf_file/0007/498985/Web-Guidelines-for-humane-di~of-downed-ducks-August-2019.PDF Accessed 19 April 2023

⁴ Kirkpatrick, C. M., Stullken, D. E., & Baldini, J. T. (1952). Effect of Simulated Gunshot Injuries on Reproduction of Game Farm Bobwhites. *The Journal of Wildlife Management*, 16(1), 54–58. <https://doi.org/10.2307/3797179>

There are no Australian studies that have been undertaken looking into the wounding of Stubble Quail. However, Haines et al. (2009)⁵ reviewed the crippling loss of harvested Northern Bobwhite quail populations across their geographic range. The Northern Bobwhite Quail closely resembles the Stubble Quail in colour, size and preferred habitat in areas containing native grasslands, shrubs or bushy components⁶. The result found 50% of retrieved harvested birds and 33% of the total kill (retrieved + unretrieved) were crippled. A similar historical study by Kellogg and Doster (1971)⁷ reported that approximately 24% of the total kill from a count of >1,000 bobwhite quails were crippled.

Utilising the total kill crippling rate from the more recent study, and the average Victorian Stubble quail harvest rate of 175,000⁸, means that approximately another 57,000 quail are wounded and not killed outright each year.

RSPCA Victoria recommendation 3:

Based on the likely wounding rate of quail, RSPCA Victoria believes quail hunting should be banned due to the inevitable suffering of birds.

3.5 Threatened or endangered species – killed or wounded

Recreational native bird hunting poses a significant risk to non-game species who may be accidentally killed or injured through misidentification or poor shooting skills. This is particularly concerning in relation to the many endangered species that share the same habitats with game species.

Hunters must pass a Waterfowl Identification Test (WIT) prior to applying for a game license to hunt duck. The test is only required to be taken once, with no renewal or refresher unless determined by the court if hunters are convicted of shooting non-game birds⁹. The test aims to assist hunters in identifying game bird species and reduce the number of protected non-game species shot.

However, a study of duck shooters in Victoria found only 1 in 5 hunters were able to correctly answer questions relating to identifying game ducks.¹⁰ This is particularly concerning as it means that a significant proportion of hunters are potentially shooting at protected species due to their

⁵ Haines, Aaron M.; Hernandez, Fidel; Henke, Scott E.; and Bingham, Ralph L. (2009) "A Review of Crippling Loss for Northern Bobwhites," National Quail Symposium Proceedings: Vol. 6 , Article 44. <https://doi.org/10.7290/nqsp067vi5> Available at: <https://trace.tennessee.edu/nqsp/vol6/iss1/44>

⁶ Northern Bobwhite. (*Colinus virginianus*). September 1999. Fish and Wildlife Habitat Management Leaflet. Number 9

⁷ Kellogg, F. E., and G. L. Doster. 1971. Bobwhite quail: Total hunter kill compared to number retrieved. Pages 147–149 in Proceedings of the Annual Conference Southeastern Association of Game and Fish Commissioners, volume 25.

⁸ <https://www.gma.vic.gov.au/hunting/quail> Accessed 17 April 2023

⁹ <https://www.gma.vic.gov.au/licencing/waterfowl-identification-test> Accessed 27 April 2023

¹⁰ https://www.gma.vic.gov.au/data/assets/pdf_file/0007/614194/GMA-Hunters-Knowledge-Survey-Report.pdf Accessed 8 May 2023

inability to differentiate between game and non-game birds – particularly endangered species such as the Freckled and Blue-billed Duck.

In addition to a lack of hunter knowledge, lack of shooting skill, hunter distance from target and visibility (particularly as hunting in the 2023 season finishes 30 minutes after sunset) all increase the risk of endangered species being shot or injured. For example, on the first day of the 2023 season, Wildlife Victoria reported in a media release that four Blue-Winged Shovelers and one Hardhead Duck had been brought to its veterinary triage tent either dead on arrival or with lethal gunshot wounds. There has been further reporting by news media of Freckled Ducks being shot and wounded in the first two weeks of the 2023 season.

Quail hunters are not required to undergo species identification testing, which raises significant concern for several endangered species that look very similar.

The critically endangered Plains Wanderer looks very similar to the Stubble Quail. There are very few features setting apart these species, and yet, the Plains Wanderer is near the brink of extinction. It is believed there may be fewer than 1,000 left in the wild¹¹.



Figure 3 – Left: Stubble Quail © Les George 2022 birdlifephotography.org.au and right: Plains-wanderer © Ian Wilson 2023 birdlifephotography.org.au

RSPCA Victoria recommendation 4:

Due to the lack of hunter education, and therefore the likelihood that hunters are shooting non-target species, including species that are critically endangered, duck and quail hunting should be banned in order to keep all native wildlife safe.

¹¹ <http://datazone.birdlife.org/species/factsheet/22693049>. Accessed 24 April 2023.

3.6 Impacts on endangered species – disturbance from hunters

In addition to the risks of being shot or wounded, several threatened and endangered species are also highly susceptible to disturbance from hunters. Disturbance can involve not being able to access food for birds that feed during daylight when hunting is occurring; not being able to find appropriate cover and circle the wetlands expending more energy and increasing their risk of being shot or wounded; and for birds that require specific diets not being able to find these foods in refuge habitats. Constant disturbance over days, weeks and months can result in distress and starvation. These are the short-term impacts, however there are also long-term impacts of hunter disturbance such as reduction in numbers of all birds (not just game species) and reduction in species richness:

- A study by Paillisson et al (2002)¹² found that the overall size of duck populations on wetlands more than doubled in years when hunting was banned, and species richness on these wetlands also significantly increased when hunting was banned (from 14 - 19 species to 23 species).
- Research by Webb et al (2010)¹³ found changes in the breeding distribution of waterbirds in response to hunting. The report describes 'hunting disturbance' as contributing to a significant 'bottleneck' in available 'breeding habitat' because of behavioural changes as a result of hunting on certain wetlands i.e. when hunting occurs more birds use protected habitats causing increased densities and competition for resources for all species in those areas where hunting doesn't occur. This has an indirect impact on the breeding success of all waterbirds, regardless of whether they are specifically targeted for hunting during any given year.

A 2019 report by the Arthur Rylah Institute ranked the susceptibility of 39 non-game species that are listed as threatened or near threatened to disturbance by duck hunters.

The top 3 birds ranked as most susceptible to disturbance by duck hunting in the 2019 report were:

1. Curlew Sandpiper – Critically Endangered in Victoria
2. Fairy Tern – Threatened in Victoria
3. Orange-bellied Parrot - Critically Endangered in Victoria

RSPCA Victoria recommendation 5:

Due to the impact of hunter disturbance on breeding and species richness duck and quail hunting should cease.

¹² Paillisson, J.M., Reeber, S. and Marion, L., 2002. Bird assemblages as bio-indicators of water regime management and hunting disturbance in natural wet grasslands. *Biological Conservation*, 106(1), pp.115-127.

¹³ Webb, E.B., Smith, L.M., Vrtiska, M.P., Lagrange, T.G. (2010). Effects of Local and Landscape Variables on Wetland Bird Habitat Use During Migration Through the Rainwater Basin, *Journal of Wildlife Management* 74(1), 109–119.

4. Arrangements in other Australian jurisdictions

In 1992, Western Australia became the first state to outlaw the practice of duck and quail hunting, followed by New South Wales in 1995, and Queensland in 2005.

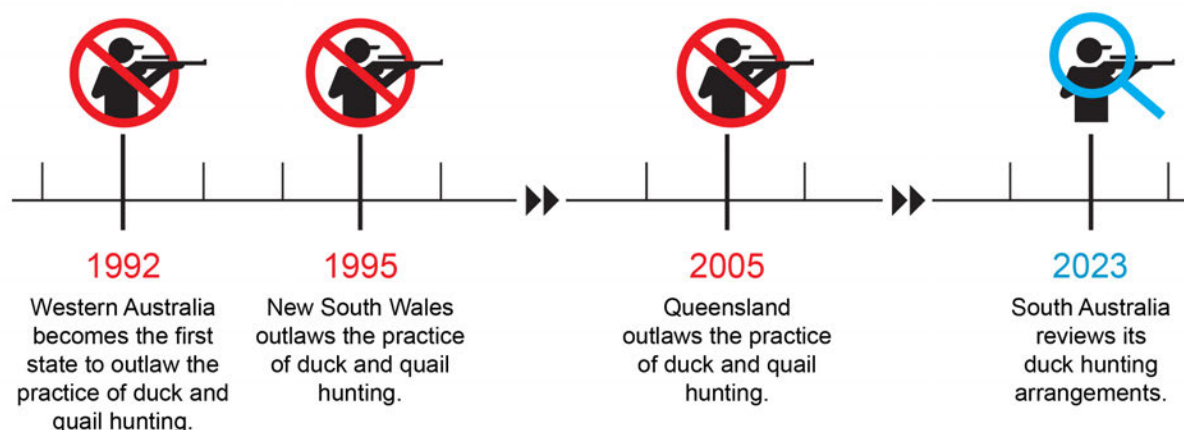


Figure 4 - Timeline of duck and quail hunting arrangements in other Australian jurisdictions

In Western Australia, the *Acts Amendment (Game Birds Protection) Act 1992* was introduced to protect native wildlife. The government believed native wildlife should be protected, admired and respected, not shot for pleasure¹⁴. The Bill sought to protect indigenous ducks, geese and quail from being shot, and to eliminate any environmental damage to the state's wetlands. The Bill was passed in June 1992, making Western Australia the first state in Australia to ban duck and quail shooting.

In New South Wales, recreational native duck and quail hunting was banned due to the cruelty involved and public outcry¹⁵.

Similarly, in Queensland, the government passed laws based on community attitudes, welfare and environmental concerns¹⁶. The Animal Welfare Advisory Committee found that 90% of birds shot were not killed outright, and that wounding rates were unacceptably high¹⁷.

¹⁴ Government of Western Australia. (1992, March 19). Bill to ban recreational duck shooting introduced [Press release]. <https://www.mediastatements.wa.gov.au/Pages/Lawrence/1992/03/Bill-to-ban-recreational-duck-shooting-introduced.aspx>

¹⁵ Parliament of New South Wales. GAME AND FERAL ANIMAL CONTROL FURTHER AMENDMENT BILL 2012. Legislative Council Hansard. <https://www.parliament.nsw.gov.au/Hansard/Pages/HansardResult.aspx#/docid/HANSARD-1820781676-49479>

¹⁶ Queensland Government. (2006, November 01). Queensland bans duck and quail hunting [Press release]. <https://statements.qld.gov.au/statements/44452>

¹⁷ Queensland Government. (2006, November 01). Queensland bans duck and quail hunting [Press release]. <https://statements.qld.gov.au/statements/44452>

The South Australian Government made an election commitment to review duck hunting laws and has established a Parliamentary Select Committee to inquire into the hunting of native birds with submissions to the Committee closing on 19 May 2023.

The arrangements and reviews in other jurisdictions show a clear precedent that a ban is in line with community expectations and that native bird hunting does not have a continuing social license.

RSPCA Victoria recommendation 6:

As native bird hunting is already banned in Western Australia, New South Wales and Queensland, and under review in South Australia, this clearly demonstrates that native bird hunting should not continue due to the absence of social license.

5. Environmental sustainability and impact on amenity

5.1 Declining duck abundance despite improved breeding conditions

RSPCA Victoria is concerned to note that while there has been an increase in available habitat (i.e. in the Murray-Darling Basin) we have continued to see a decline in game duck abundance.

As outlined in the GMA considerations document¹⁸, habitat availability and game duck abundance usually have a positive relationship; however, the results from the Aerial Survey of Waterbirds in Eastern Australia 2022 show this is not the case¹⁹:

- Despite two successive La Niña years three major indices for waterbirds (total abundance, number of species breeding and wetland area index) continued to show significant declines over time.
- The game duck abundance index decreased by 2% from 2021.
- The 2022 game duck abundance index was the third lowest recorded in 40 years and is at 25% of the long-term average.

¹⁸ Game Management Authority (2022) 'Considerations for the 2023 duck season'.

¹⁹ Porter JL et al. (2022) 'Aerial Survey of Waterbirds in Eastern Australia – October 2022 Annual Summary Report', University of New South Wales, Sydney.

- Duck abundance is well below the long-term average (see figure 5), with some species of game duck abundances below average by an order of magnitude.
- Six out of eight species continued to show significant long-term declines (see table 1). Australian Wood Duck was the only species slightly above the long-term average. Some duck species declined in abundance compared to 2021 including the Grey Teal, Pink-eared Duck and Hardhead. The Hardhead is now on the threatened species list.

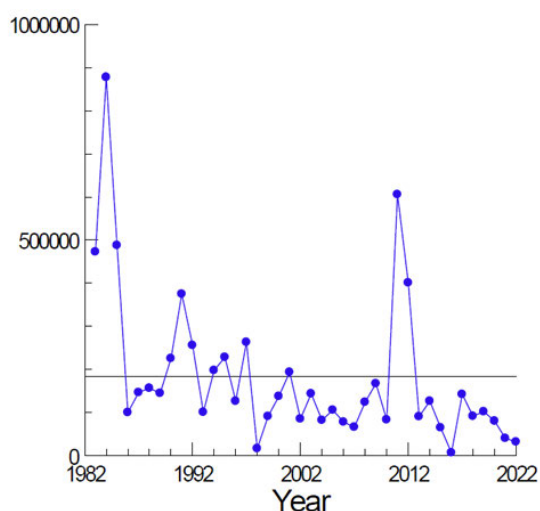


Figure 5 Changes in duck abundance over time in the Eastern Australian Waterbird Aerial Survey (1983-2022); horizontal line shows long-term average

Species	Trend
Pacific black duck	decline
Australasian shoveler	decline
Chestnut teal	decline
Grey teal	decline
Hardhead	no trend
Mountain duck	decline
Pink-eared duck	no trend
Australian Wood duck	decline

Table 1 - Trends in abundances of game species from the Eastern Australian Waterbird Aerial Survey (1983-2022).

The sustainability of duck populations is clearly at peril and anything that further impacts populations, such as duck hunting, must be avoided.

5.1.1 Game birds now on threatened list

Two game birds, the Blue-winged Shoveler and the Hardhead Duck are now considered threatened. While the GMA has stipulated that these ducks cannot be shot in the 2023 season, due to the issues with misidentification and shooter aim, there are significant concerns about further declines to these populations.

5.1.2 Impact of duck abundance on biodiversity

Waterbirds are very sensitive indicators of the health of entire wetland systems, because they are responsive to flow and the health of their environment. The scarcity of waterbirds may denote greater issues with the ecosystem. A range of unknown variables could be impacting the waterbird population numbers and therefore more research needs to be conducted to understand the decreasing trends, which will require sufficient time to be performed.

The welfare of other animal species that rely on waterbird populations may also be affected. The science is evolving; however, it is understood that disturbed habitats are more likely to trend towards 'homogenisation' – i.e. a gradual reduction in biodiversity, as more sensitive species are lost from an ecosystem, and that this has long term implications as less biodiverse ecosystems may be less resilient to change and less able to adapt to changes caused by climate change.

RSPCA Victoria recommendation 7:

Duck hunting should not continue due to the long-term decline in game bird population, failure of the species to respond to favourable conditions, and significant risk to biodiversity.

5.2 Stubble Quail abundance in decline

Despite there being significant challenges in estimating the number of Stubble Quail in Victoria, there is evidence to strongly suggest the population is in decline and is unlikely to recover due to additional pressures from hunting during the breeding season and habitat loss.

5.2.1 Difficulty establishing population numbers

The GMA has, however, suggested that harvest data could be used as a proxy for species abundance in the absence of direct measurements of the size of a population. According to

government data on quail harvests, there has been a clear long-term decline in the average harvest (see figure 6).

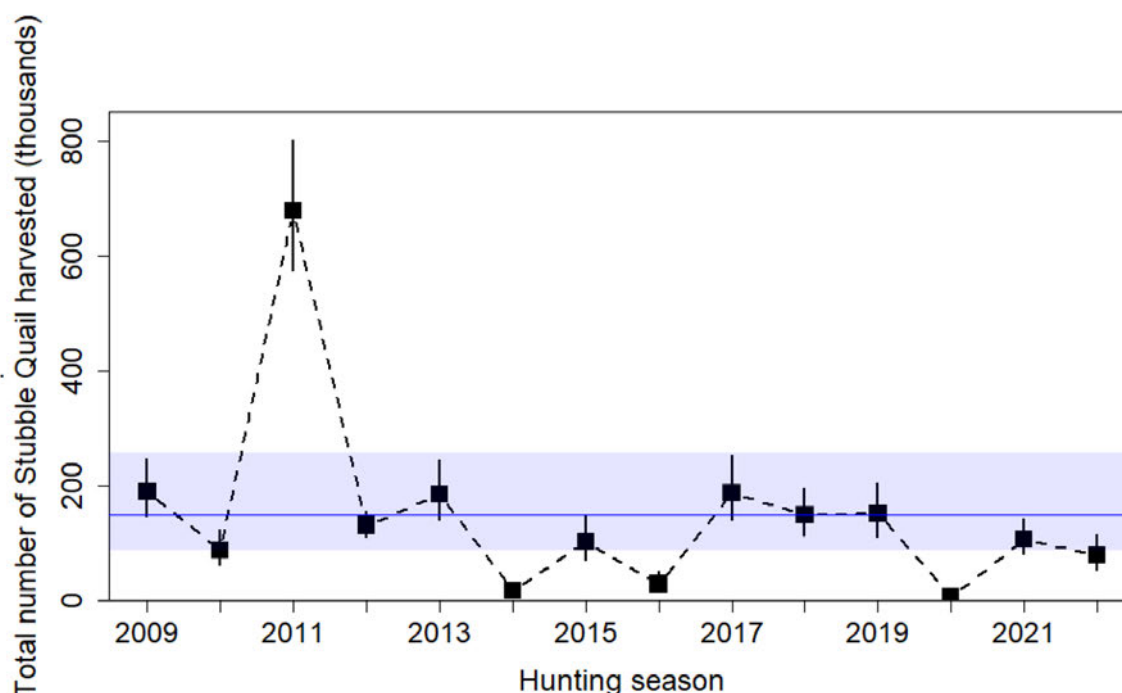


Figure 6 Estimates of total Stubble Quail harvests (in thousands) from 2009 to 2022. The blue line is the average harvest from 2009 - 2022.

5.2.2 Hunting during breeding season

The second breeding season for Stubble Quail occurs frequently during late summer and autumn, overlapping with the hunting season²⁰. If the hunting season continues to cross over with the quail breeding seasons, breeding patterns may become impacted over time and cause a threat to species abundance.

5.2.3 Habitat loss

Although there is clear evidence of extensive loss of the quail's preferred grassland habitat, the Stubble Quail is still listed as game species that can legally be hunted in Australia. While the Stubble Quail is well adapted to agricultural areas, modern farming practices including extensive use of pesticides and the cultivation of large monoculture crops, could negatively impact survival

²⁰ Frith HJ Carpenter SM (1980) Breeding of the Stubble Quail, *Coturnix pectoralis*, in South-Eastern Australia. *Wildlife Research* 7, 117-137.

by reducing the availability of food, habitat complexity and year-round cover²¹. Studies have found this in other ground-dwelling game birds in other parts of the world²².

RSPCA Victoria recommendation 8:

Quail hunting must be banned based on the decline in Stubble Quail numbers in Victoria and the additional pressures from hunting during breeding season and habitat loss.

5.3 Impact of climate change on future duck and quail populations

Australia's climate has warmed by around 1.47 °C in the period 1910–2021, leading to an increase in the frequency of extreme heat events.²³ Over the past 22 years, rainfall in Victoria has been very much below average (see figure 7)²⁴ and decreased by approximately 10 per cent during the cool season months (April to October)²⁵.

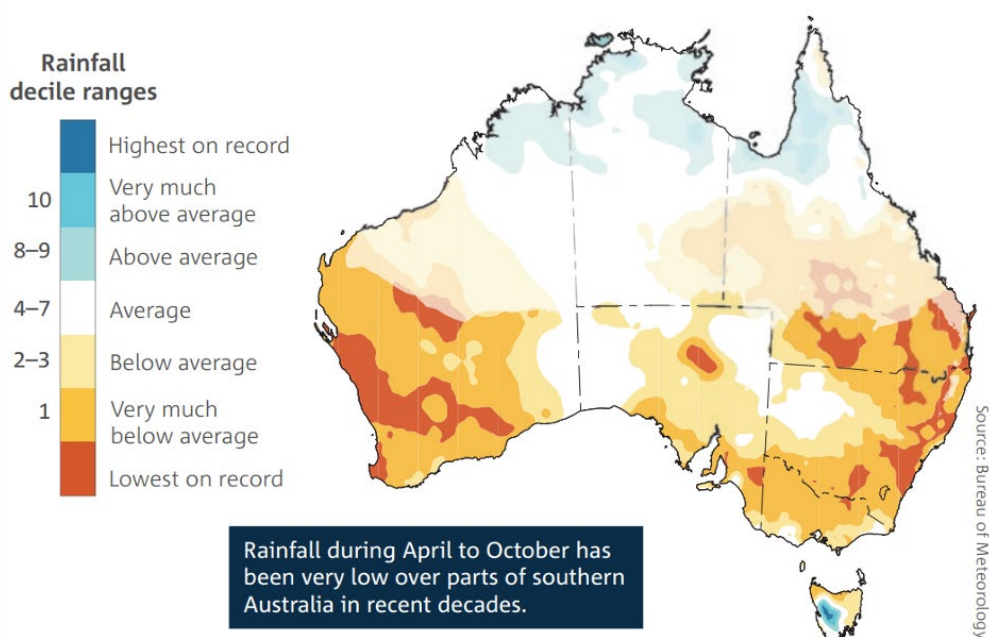


Figure 7 April to October rainfall deciles for the past 22 years (2000-21). Map shows averages compared to all years from 1900.

²¹ Ray M, White JG, Weston MA, Rendall AR, Toop SD, Dunstan H, Hampton JO, Cooke R. Assessing the efficacy of electronic quail callers in attracting stubble quail and non-target predators. PLoS One. 2022 Jul 22;17(7):e0271893. doi: 10.1371/journal.pone.0271893. PMID: 35867695; PMCID: PMC9307177.

²² Ronnenberg K, Strauß E, Siebert U. Crop diversity loss as primary cause of grey partridge and common pheasant decline in Lower Saxony, Germany. BMC Ecology. 2016;16(1):1–15.

²³ <http://www.bom.gov.au/climate/outlooks/#/overview/influences> Accessed 19 April 2023

²⁴ CSIRO & Bureau of Meteorology (2022) 'State of the climate 2022', Canberra: Commonwealth of Australia, <http://www.bom.gov.au/state-of-the-climate/2022/documents/2022-state-of-the-climate-web.pdf>, accessed 17 April 2023.

²⁵ Ibid

5.4 Climate outlook - Ducks

Rainfall in the cool season months is important as it is when peak streamflow occurs in most catchments, and it is more effective than warm-season rainfall in generating runoff²⁶. Runoff is essential in the creation and maintenance of waterbird habitat as it affects water availability in the wetlands and sustains the health of riverine systems. It is projected that Australia's future climate will comprise of further decreases in cool season rainfall and longer periods of drought on average across many regions of southern and eastern Australia²⁷. This outlook suggests that hunting will not be sustainable into the future due to ducks' reliance on long term rather than short term rainfall.

While the long-term outlook is concerning for future duck sustainability, the current short term predictions are also likely to have an impact. The Pacific Ocean is currently ENSO-neutral. However, the Bureau of Meteorology general model guidance indicates the potential that El Niño may form later in the year. This means there is around a 50% chance of El Niño in 2023.²⁸ El Niño and La Niña have perhaps the strongest influence on year-to-year climate variability in Australia. The shift in rainfall away from the western Pacific, associated with El Niño, means that Australian rainfall is usually reduced through winter and spring, particularly across the eastern and northern parts of the continent. Nine of the ten driest winter and spring periods on record for eastern Australia occurred during El Niño years. In the Murray Darling Basin, winter and spring rainfall averaged over all El Niño events since 1900 was 28% lower than the long-term average, with the severe droughts of 1982, 1994, 2002, 2006 and 2015 all associated with El Niño.²⁹ This is important as the Murray-Darling Basin is a critical area for waterfowl production.

5.5 Climate outlook – Quail

Similarly, to ducks, rainfall is also one of the major influences considered to stimulate the onset of the Stubble Quail's reproductive season³⁰. This means that the projected climate outlook will likely have an adverse effect on quail breeding and their abundance.

Studies have suggested that in periods of drought, Stubble Quail may experience higher levels of mortality and fail to breed. There is also strong evidence to suggest that extensive loss to the quail's preferred habitat would not only lead to increased vulnerability, but it would also impact their ability to adapt if extreme weather conditions were to occur. As the Stubble Quail are already experiencing significant loss to their original habitat from agriculture, added pressure from climatic conditions will likely impact their distribution, productivity and population.

Since a break in the drought (2009-2010), there has been a below average rainfall recorded in south-eastern Victoria with forecasts projecting further declines in cooler season rainfall. Hunting is not sustainable given the projected climate outlook.

²⁶ Ibid.

²⁷ Ibid.

²⁸ <http://www.bom.gov.au/watl/about-weather-and-climate/australian-climate-influences.shtml?bookmark=enso> Accessed 19 April 2023

²⁹ <http://www.bom.gov.au/climate/updates/articles/a008-el-nino-and-australia.shtml> Accessed 19 April 2023

³⁰ S. Toop, 1994, Reproductive Timing and Habitat Preference in the Stubble Quail (*Coturnix pectoralis*) in Northern Victoria. <http://researchonline.federation.edu.au/vital/access/HandleResolver/1959.17/46034>

RSPCA Victoria recommendation 9:

Short- and long-term climate outlook modelling shows likely impacts on availability of habitat, abundance and breeding and therefore does not support the continuation of native bird hunting.

5.6 Use of lead shot

Hunters are still permitted to shoot quail using toxic lead ammunition. This is a serious welfare concern for native bird species. When hunters miss a shot, stray lead bullets or bullet fragments can be ingested by quail or ducks, who mistake them for small stones or grit used to help grind food in their gizzards³¹. When there is a build-up of lead in the body, lead toxicosis, or poisoning can occur, causing negative impacts on their health, reproduction, behaviour and can even lead to death³².

As soon as lead enters the bloodstream and accumulates in organs such as the liver or kidneys, physiological and behavioural changes begin to occur, eventually resulting in death once certain levels of lead concentrations are reached³³. Death through lead poisoning is a slow and painful process for birds to experience. Studies have also found that lead inhibits reproductive capabilities in adult birds and alters growth and development of hatchlings³⁴.

When quail are shot and not retrieved, or ducks are illegally shot with lead, scavenging wildlife feeding off carcasses risk ingest lead bullets or fragments. Fragments are often too small for animals to detect or avoid when they come across wounded or dead prey, and if not eliminated from them, may remain in their stomachs for days or weeks³⁵.

In addition to ingesting shot, it is possible that environmental lead exposure from missed shots contaminating the waterways and soil could be contributing to wildlife mortality by impeding the intricate cognitive processes and social behaviours essential for survival and reproductive success³⁶.

RSPCA Victoria recommendation 10:

Due to the direct and indirect impacts of lead ammunition on native animals and the environment, and the continued use of lead shot illegally by duck hunters, duck and quail hunting should be banned.

³¹ De Francisco N, Ruiz Troya JD, Agüera EI. Lead and lead toxicity in domestic and free living birds. *Avian Pathol.* 2003 Feb;32(1):3-13. doi: 10.1080/0307945021000070660. PMID: 12745376.

³² Ian J. Fisher, Deborah J. Pain, Vernon G. Thomas, A review of lead poisoning from ammunition sources in terrestrial birds, *Biological Conservation*, Volume 131, Issue 3, 2006, Pages 421-432, ISSN 0006-3207, <https://doi.org/10.1016/j.biocon.2006.02.018>.

³³ N. De Francisco, J.D. Ruiz Troya & E.I. Agüera (2003) Lead and lead toxicity in domestic and free living birds, *Avian Pathology*, 32:1, 3-13, DOI: 10.1080/0307945021000070660

³⁴ Williams, R.J., Holladay, S.D., Williams, S.M., Gogal, R.M. (2017). Environmental Lead and Wild Birds: A Review. In: de Voogt, P. (eds) *Reviews of Environmental Contamination and Toxicology* Volume 245. *Reviews of Environmental Contamination and Toxicology*, vol 245. Springer, Cham. https://doi.org/10.1007/398_2017_9

³⁵ Ibid.

³⁶ Pokras, M.A., Kneeland, M.R. Lead Poisoning: Using Transdisciplinary Approaches to Solve an Ancient Problem. *EcoHealth* 5, 379–385 (2008). <https://doi.org/10.1007/s10393-008-0177-x>

6. Social and economic impact

The economic and social benefits of ecotourism and non-hunting related outdoor activities significantly outweigh those associated with hunting. In fact, research from Kantar, global data and evidence-based agency and The RedBridge Group, a specialist advocacy, social and communications research agency, indicate that duck hunting is negatively impacting and restricting tourism opportunities in regional Victoria.

6.1 Economic benefits of banning duck hunting

Nationally, nature-based tourism contributes \$23 billion to the Australian economy each year³⁷. It is a growing sector of the tourism industry, providing sustainable employment opportunities.

Birdwatching tourists spend more than any other type of tourist in Australia, with day and overnight trips representing an estimated value of \$283 million to the Australian economy³⁸.

Investing more money into improving native Australian bird species habitat and their abundance has a far higher potential to bring in greater economic contributions from tourists who value conservation.

Research conducted by Red Bridge Group in 2022 (n=11,500) found:

- Seeing and experiencing native wildlife on holidays was deemed 'somewhat' or 'very important' to 67.5% of Victorians polled (figure 8). These percentages were much higher for those in lower socio-economic groups who are more likely to holiday within the state rather than go overseas.
- When asked directly if they would avoid holidaying in an area where duck hunting was occurring – more than one third indicated 'yes definitely', this increased to 41% in those earning less than \$50,000 a year – again the group more likely to holiday within the state.

³⁷ <https://www.dcceew.gov.au/parks-heritage/national-parks/parks-australia/publications/sustainable-tourism-overview-2011-2016-parks-australia>. Accessed 27 April 2023.

³⁸ R.Steven (2022) Bird and Nature Tourism in Australia: BirdLife Australia, DOI: 991005542577807891

Importance of Native Wildlife on Holidays

When considering where to travel for a holiday within Victoria, how important is seeing and experiencing native wildlife to your choice of destination?

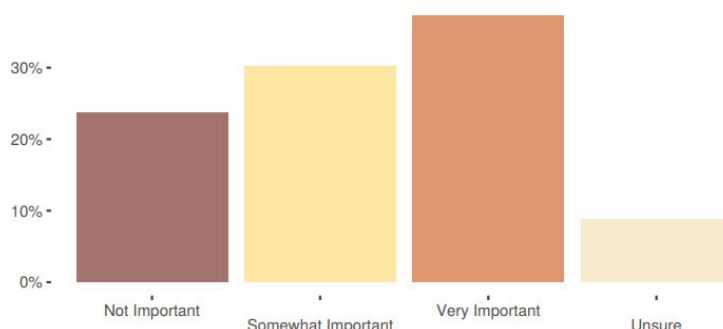


Figure 8 Survey responses from community case for banning duck hunting

The 2012 report “Out for a duck - An analysis of the economics of duck hunting in Victoria” by the Australia Institute, concluded that there would be no negative impact on expenditure in Victoria from a duck hunting ban³⁹. The report states that non-hunting tourism is vastly more important to the Victorian economy and to regional areas.

6.2 Accuracy of economic benefits of duck hunting reports

There are several reports on the economic benefits that duck hunting conveys to regional Victoria. The most commonly reported is the ‘Economic contribution of recreational hunting in Victoria report’ (2020; the economic contribution report)⁴⁰. The report states that duck and quail hunting combined, had a gross state contribution of \$87 million dollars in 2019.

There are several issues with this report:

- The total “off-trip” expenditure for duck and quail hunting has been inaccurately inflated due to the report not accounting for pest hunting.
- The 2019 figures are flawed and out of date. Since 2019, the number of active duck and quail hunters has decreased by more than 15%. We could assume from this figure that the total expenditure from duck and quail hunting has also decreased significantly since 2019.

The report ‘Out for a duck’ found:

“Claims that duck hunting – or any recreational hunting – contributes significantly to the economy of Victoria are false. They assume that without hunting any related expenditure would be lost to Victoria. On the contrary, our survey shows that if duck hunters were prevented from hunting ducks they would go fishing, hunt other species, or go camping. There would be no impact on expenditure in Victoria from a duck hunting ban.”

³⁹ Out for a Duck An analysis of the economics of duck hunting in Victoria September 14, 2012 by Rod Campbell, Richard Denniss and David Baker

⁴⁰ Department of Jobs, Precincts and Regions ‘Economic contribution of recreational hunting in Victoria’, Final Report, June, 2020

RSPCA Victoria recommendation 11:

Based on the evidence suggesting there will be no negative impact to the economy if duck and quail hunting was to cease, RSPCA Victoria believes hunting should be banned to allow for greater economic contribution from alternative outdoor recreational activities and an increase in eco-tourism.

6.3 Social impact of recreational native bird hunting

There are 6.5 million people living in Victoria and in 2022, only 0.17% of the Victorian population actively participated in duck hunting and 0.04% participated in quail hunting.

RSPCA Victoria engaged market research firm, Kantar, to assess Victorians' attitudes towards duck and quail hunting. These findings span from all data collection from August 2019 through to March 2023 (n=6,222), and quail hunting research which began in March 2023, and are a representative sample of the population.

This survey found that overall opposition to duck hunting remains high, with two in three Victorians (66%) stating that they oppose the activity compared to 16% who support it. More than four times as many Victorians are opposed to native duck hunting, compared to those who support it (see figure 9).

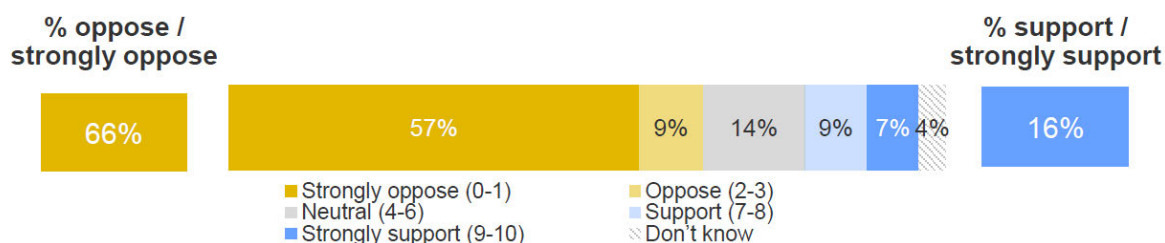


Figure 9 Victorian community attitudes to duck hunting

Of metropolitan residents 68% are opposed to duck hunting, while 61% oppose it in regional Victoria. Only one in twenty Victorians have or had an interest in participating in duck hunting, with less than 3% considering participation and 6% who had previously participated. 88% of Victorians were somewhat, very or extremely concerned about long-term injuries to ducks who survive being shot. The survey also found that 86% of Victorians expressed concerns about shooting protected (non-game) species.

The study found that the majority (72%) of Victorians were not familiar with quail hunting yet were still strongly opposed to the practice (67%, figure 10).

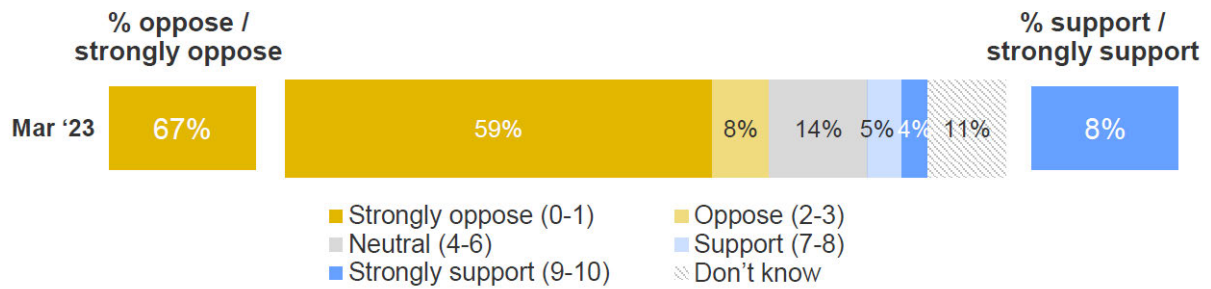


Figure 10 Victorian community attitudes to native quail hunting

RSPCA Victoria recommendation 12:

A ban on native duck and quail hunting will be supported by a very clear majority of the Victorian community.

7. Conclusion

It is clear from the data presented in our submission that native bird hunting has a significant animal welfare, social and environmental impact and cannot be supported sustainably into the future. RSPCA Victoria believes the Select Committee should recommend Government bans native bird hunting to protect individual animal welfare and the environment for the future.



08.05.23