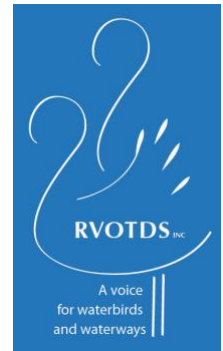


Game Policy Division, DJSIR

Cc Minister Steve Dimopoulos,  
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December 16, 2024



## Important points regarding the Victorian Harvest Strategy Draft

1. The strategy is silent on the alarming long-term decline of game ducks as shown in the East Australian Aerial Waterbird Surveys (EAAWS), and Professor Kingsford’s warning that waterbird “bounce backs” are becoming smaller<sup>1</sup>.

Shooters dismiss EAAWS as “not a total count”. But it has never professed to be. It monitors trends in critical waterbird indices including breeding, and abundances of each species, and is the most consistent, sizeable, long -term, aka [best available evidence](#). By contrast, the Victorian “counts” which shooters (and this new strategy) favor, are not total counts either, but estimations, using relatively recent surveys of a small percentage of (inconsistently selected) waterways.

There must be far more emphasis on EAAWS which is a more reliable indicator of critical trends in duck indices: abundance, breeding and habitat.

2. The strategy leans on the estimated abundance of game ducks in Victoria only. This is problematic as ducks fly between states. One state may have fewer ducks while another may have the majority of the nation’s ducks for example if it has become a sanctuary based on factors such as available water. If this happens to be Victoria, hunting will have an impact on the *nation’s* birds. There must be far greater emphasis on the East Australian Aerial Waterbird Survey which appropriately considers duck indices in all eastern states.

Case in point, the latest NSW count saw duck numbers had crashed and this must be considered in setting any Victorian hunting seasons. Only two species showed a modest increase. The total across 8 game species was less than half (43%) of the previous year. Pacific Black dropped to less than a third of the previous estimate. Pink-eared ducks were just one-eighth (13%) of the previous estimate. No Blue-winged Shovelers were found at all.

	2023	2024
Pacific Black	2,761,575	881,727
Grey Teal	762,224	480,171
Wood Duck	719,075	458,911
Blue-winged Shoveler	1,074	0
Chestnut Teal	13,454	21,702
Hardhead	11,007	6,520
Mountain Duck	9,474	14,978
Pink-eared Duck	12,246	1,632
<b>TOTAL</b>	<b>4,290,129</b>	<b>1,865,641</b>

Left: Extrapolated estimates of ducks in NSW Riverina. Source: NSW DPI Annual Waterfowl Quota extrapolated estimates: 2023/24 p17 and 2024/25 p15/16).

<sup>1</sup> <https://www.smh.com.au/environment/tennis-ball-bounce-record-low-bird-numbers-highlight-water-system-woes-20161216-gtcgyn.html>

3. The abundance estimates proposed for use in the strategy are only reliable for “more common” species such as Pacific Black, Grey Teal and Wood Duck (whose numbers crashed 68%, 37% and 36% respectively in NSW). They are UNreliable for less common game duck species. It is irresponsible to simply guess a sustainable kill rate for less common species and risk depleting their populations.

At least in NSW, there is a per-species bag limit to account for differences in species abundance. Pink-eared ducks, Hardhead, Australian Shelduck and Chestnut Teal are *only* permitted to be shot if it can be proven they will cause significant damage otherwise. <sup>2</sup>

*“...because previous modelling has shown their population dynamics do not respond predictably to changes in climate or only occur in low abundance...”*

The same should be the case in Victoria. If the model is not yet capable of this, it is not yet fit for purpose.

4. The proposed kill rate of 10-15% of estimated duck populations is high risk. It is based on one individual’s theory that 10-20% would be sustainable. This theory has not been independently peer-reviewed and ignores advice of many scientists, avian experts and ecologists who disagree with it. The model must be independently peer reviewed before adopted, and feedback sought from a wider range of independent avian experts (not chosen by GMA).
5. A closed season trigger being solely based on the modelled daily bag limit being below one game duck is ridiculous. There should obviously be provision for cancelling seasons for other reasons including H5N1. While shooters (who represent less than half of one percent of the population) may like assurance of a guaranteed shooting season every year, the rest of Victoria would like assurance that our wildlife and environments are being protected. On page 5 you talk of ducks being a “community resource”. You must factor in there are only 22,000 licenced duck shooters (around half that number are inactive). But there are 6.8 million other Victorians, most of whom would like to appreciate and protect our native ducks – many species unique to our country. Almost a million domestic tourists birdwatched last year<sup>3</sup>. [Wetland birds](#) are popular.
6. Whilst it is good the wounding rate is being factored in to modelling, the wounding rate of 23% is flawed and based on underestimates. We submit the 23% should be replaced with 50% at least. Our reasons follow.

Your draft states the wounding rate is anywhere between 10-40% so you have taken a midway guesstimate at 23% as a basis for the model. (Just think about that for a moment. What if 23% of our cattle were escaping injured from the abattoirs?) However, the wounding rate, according to GMA itself, is more like 83% \*, and other factors also add to the wound rate\*\*.

\*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.**

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<sup>2</sup> [https://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0004/1581430/2024-25-ngb-quota-report.pdf](https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0004/1581430/2024-25-ngb-quota-report.pdf) p 16.

<sup>3</sup> Tourism Research Australia National Visitor Survey

(NB this does not account for the birds that had already died from their injuries).

Whilst this figure may seem high, GMA is well aware the crippling rate reported in Denmark prior to their robust testing measures, was **100%**. It took the Danish government a quarter of a century to reduce their 1:1 wound rate down to 10% with the use of vigorous hunter training.

**\*\*Further, the wound rate is compounded by other factors:**

- i) Many bird species form life-long pairs. When one is shot, any offspring is unlikely to survive, and the remaining partner may never recover<sup>4</sup> - Prof. Kaplan.
  - ii) Death by legacy lead pellets which do not break down, left in the environment from prior shooting seasons. A single lead pellet can cause extreme suffering and death<sup>5</sup>. There are tonnes of lead still in the sediments of our waterways from decades of duck shooting before lead was banned<sup>6</sup>. Recent studies showed 2.6% (or 36,400 based on the particular year's population estimate) of Pacific Black Duck had severe lead exposure<sup>7</sup>.
7. Bag Limits being the primary management tool is flawed. Bag limits are moot unless they can be monitored. The entire model fails to factor in the vast number and expanse of areas open to hunters. Minister Dimopoulos' answer to QON (#1611) advises duck shooting is permitted on 54% of public wetlands (250,000 hectares). On top of this it is permitted at thousands of public rivers, streams, creeks which are neither quantified nor mapped. A further 320,000 hectares of private wetlands may be available to hunters. **The vast majority of hunting areas are not monitored**. In the 2023 Harvest Report, 1.2% of duck shooters openly admitted to exceeding their bag limit. One can only imagine how many exceed their bag limit but don't own up to it.
8. Season length has been dismissed as a management tool in this draft, however it is a key metric which can be used to reduce the adverse impact of hunting on community. Season length must remain a key tool in management and must be significantly reduced. We note that in the 1950's and 1960's duck shooting seasons were 60 days. It is unclear how it crept to 90 days. Nowadays one in four Victorians live regionally, often near one of the thousands of areas where bird shooting is permitted. The season length should be reduced from 60 days to 30 at most, out of respect for regional voters.

Adjusting the season length would also assist to protect our migratory birds, which Australia has an international obligation to protect. The majority of migratory bird species are in catastrophic decline and hunting is known to adversely impact them.

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](https://www.gma.vic.gov.au/assets/pdf_file/RS...PDF)

[Duck hunting season 2022 - Game Management Authority](#)

9. Season timing to avoid birds' breeding seasons is paramount. This must of course be reflected in the quail shooting season.
10. Data inputs are flaky, leading to flawed guesstimates.
- i) The abundance estimate is based on Victorian counts only
  - ii) There is unreliable data for "less common" game ducks
  - iii) There is a gross lack of population data for quail (See Appendix A.)

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<sup>4</sup> <https://www.regionalvictoriansotds.com/post-1/2017/09/11/comment-on-the-survival-of-waterbirds>

<sup>5</sup> <https://www.abc.net.au/news/2022-08-03/victoria-duck-hunting-lead-poisoning/101292288#>

<sup>6</sup> Fauna & Flora Guarantee Action Statement #32 states 350 tonnes were pumped into Victorian duck shooting waterways each year)

<sup>7</sup> <https://www.sciencedirect.com/science/article/abs/pii/S0048969723004187>

- iv) Wound rates for ducks are underestimated and are not even known for quail
- v) Harvest estimates are reliant on shooters' honesty
- vi) There are at least 3 different sub-models in this new AHM model, each with its own set of assumptions and uncertainties which compound when combined.
  - One example is N-mixture modelling. This is so unreliable even NSW DPI are moving away from it<sup>8</sup>.

11. Selective science. Only a few "experts" seem to have been chosen by GMA to abide by. What about BirdLife Australia avian experts and other specialist avian ecologists? What about [Prof Kaplan?](#) What about H.J. Frith, bird expert and hunter, who says of the pink-eared duck;

*"They are very poor game birds, being very tame, slow on the wing and easy to shoot; they are very small and are poor table birds... I have seen irresponsible shooters fill their bags with them during the day, but throw them away if "better" birds were secured... In my view the bird should be removed from all game lists" - (Waterfowl in Australia by HJ Frith 1981, p 245).*

And of the Hardhead: *"When wounded it swims and dives expertly and is hard to retrieve - perhaps more crippled Hardhead are lost than any other species" - (Waterfowl in Australia by H.J Frith, p 257).*

Again, the new strategy must be independently peer-reviewed before use, and reviewed by a wide range of ecologists and bird experts, not just a few GMA choose. Unfortunately GMA has been the subject of numerous complaints by different stakeholders over many years, due to what many say is either the regulator's bias or incompetence.

- 12. The Review Panel is too small and subjective. As above, the review panel should not be chosen by GMA. It should consist of a wide range of experts with input from BirdLife Australia - a highly trusted and credible organization.
- 13. How will it be determined who is a Traditional Owner, and exempt from hunting laws? There must be a clear and robust mechanism communicated immediately, or this becomes a loophole for shooters to undermine the aim of the strategy.

## Conclusion

Shooters have been pushing for this model for decades, (same as they pushed to have the GMA installed). One must consider why.

This new model is far from world's best practice. We note that scientists have criticized aspects of the model and NSW DPI are discontinuing the use of parts of it.

If sustainability is the aim, world's best practice exists in countries with better levels of biodiversity and less extinctions than Australia or the US. Many other states and countries with healthier ecosystems and biodiversity, do not permit bird hunting. 60% of RAMSAR sites world-wide do not allow bird hunting<sup>9</sup>.

**The strategy needs far more work before it is fit for purpose. To adopt it any sooner, would be contrary to the FFG Act's Precautionary Principle.** It would not be just "learning by doing" but "learning by killing" declining numbers of native birds which belong to all of us.

<sup>8</sup> [https://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0004/1581430/2024-25-ngb-quota-report.pdf](https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0004/1581430/2024-25-ngb-quota-report.pdf) p 10.

<sup>9</sup> <https://rsis.ramsar.org/rsis-search/hunting%2520%2520permitted?pagetab=2>

**Appendix A – Where’s the Science Behind Quail Shoots? Transparency & Stakeholder Engagement Required URGENTLY**

RVOTDS has been asking for some time, for transparency of the “science” used in setting quail shooting seasons. It appears little if any exists. This is just one reason why there must be stakeholder consultation.

It is perplexing how a regulator tasked with ensuring sustainability, can allow full recreational native Stubble Quail shooting seasons to take place every year in the full knowledge that it has little information on the Stubble Quail and what it does have, is subjective<sup>10</sup>.

- There are no long-term population counts for Stubble Quail in Victoria. A first-ever “count” of Victorian native stubble quail in 2022 found just 101 birds. This was extrapolated up and reported as an unbelievable 3.1 million. As for accuracy, the report’s authors have previously stated a co-efficient of variation (error indicator) should not exceed 15% for results to be acceptable. (Abundance estimates of game ducks in Victoria, Ramsey and Fanson 2022, p 14-15). However, in this quail report, the co-efficient of variation is 29%. (In other words, the estimate of 3.1 million quail is unreliable.) Two further counts (both less than 500 birds yet rounded up to several million using the scientifically criticized N-mixture modelling) showed a 20% decline in just 12 months.
- Climate change is bringing more frequent and intense fires and floods which adversely impact quail (Frith and Carpenter 1980). This should be cause for more caution, not less.
- The quail shooting seasons co-incide with the birds’ breeding periods which should be avoided.
- There has been no published science on quail biology for 40 years and little is known about its threats.
- 85% of grassland habitat (Stubble Quail habitat) has been lost due to development and agriculture.
- The wounding rate is unknown.
- The Stubble Quail closely resembles two other threatened quail species as well as the critically endangered Plains Wanderer. Yet there are no species ID tests required of quail shooters who are permitted to shoot in poor light conditions. The number of threatened species killed and injured as collateral damage in quail shooting would be significant, but the regulator does not collect that data.

Next Page: extracts from the 2020 Quail Forum run by GMA which show the regulator is well aware of its lack of science on quail, yet allows full quail shooting seasons to happen every year regardless, including through the quail breeding periods.

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<sup>10</sup> Slide deck from GMA’s 2020 Quail Forum

## 8.1 Why Monitor Timing of Breeding and Productivity?

Important to avoid harvesting in the lead up to or during breeding where **sustainability** is a management objective

Harvesting during breeding can:

- disrupt pair bonding
- cause the death of chicks through abandonment or loss of parent bird
- lead to a sex bias if one sex is more vulnerable to harvesting than another during breeding
- reduce recruitment and lead to a population decline

Hunting seasons should be timed to occur-post breeding to

- coincide with the peak in population size, temporarily increased by birds of the year, so harvesting can replace natural mortality without damaging breeding stocks
- young birds must also be allowed to develop to the point that they are strong in flight to avoid any vulnerability



## 3.1 Literature

- Poor understanding of basic life-history and threats to the species
- Much of the literature on the Stubble Quail is qualitative/observational. Little in the scientific peer-reviewed literature

## 3.5 Breeding

Breeding occurs regularly in spring and autumn

