

Assessment of waterbirds deposited at Treasury Place following the opening week of the 2025 duck season

Background and summary

The attached spreadsheet provides an assessment of birds collected and left by animal welfare activists at 1 Treasury Place, Melbourne, on 31 March following the first week of the 2025 Victorian duck season. The primary purpose of the assessment was to determine the number of birds carrying embedded shotgun pellets as an indicator of shooting being the cause of death. Each bird was visually assessed and their appearance, obvious injuries (e.g. broken wings and legs) and state of preservation described. Where present, evidence of shot damage was also reported, particularly on the bill and webbing of the feet as shotgun pellets can pass through the body and do not appear in radiographs (x-rays).

Assessment of birds was conducted by Game Management Authority personnel at the Benalla office of the Department of Jobs, Skills, Industry and Regions over two days. The first 152 birds were assessed on Friday 4 April and the remainder of the birds on Monday 7 April. With the exception of badly decomposed animals, Agriculture Victoria veterinarians took swabs for avian influenza and disposed of the birds (incineration) on the same day. An Excel spreadsheet containing descriptive assessments and a link to a radiograph of each individual animal is kept on GMA records.

The table below summarises the findings:

Total number of birds examined		268
	Total game ¹	212
	Total non-game ²	56
Total number of birds carrying pellets		115
	Total game	99
	Total non-game	16
Total number of birds showing signs of being shot but not carrying embedded pellets		54
Total number of birds showing signs of being shot (i.e. carrying embedded pellets and signs of shot damage)		169

- Of the 268 birds presented and examined, 79% (212) were game ducks and 21% (56) were non-game species.
- Of the 268 birds presented and examined, 115 (43%) were found to be carrying embedded shotgun pellets.
- Of those 115 birds inflicted with shotgun pellets, 99 (86%) were game ducks and 16 (14%) were non-game species.
- Of the 268 birds presented and examined, 169 (63%) showed signs (i.e. embedded pellets, obvious signs of shot damage) that they had been shot.

¹ The term 'game' in this report does not include the Blue-winged Shoveler. Although the species is declared to be game under the *Wildlife Act 1975*, the Blue-winged Shoveler has a year-round closed season and cannot be hunted as prescribed by the *Wildlife (Game) Regulations 2024*.

² Non-game includes the Blue-winged Shoveler.

Findings

Species totals

A total of 268 birds (game and non-game) were presented by animal welfare activists. These can be categorised into game duck, non-game (protected) duck (see footnote 1) and other non-game birds (protected) species as follows:

- 212 (79%) game-ducks, consisting of Australian wood duck (16 or 6%), Grey teal (80 or 30%), Chestnut teal (1 or 0.4%), Pacific black duck (2 or 0.7%) and Pink-eared duck (113 or 42%)
- 15 (5.6%) non-game ducks consisting of Blue-billed duck (1 or 0.4%), Australasian shoveler (5 or 2%) and Freckled duck (9 or 3.4%)
- 41 (1.5%) non-game birds, consisting of Brown quail (1 or 0.4%), Darter (3 or 1.2%), Cormorant (9 or 3.4%), Moorhen (2 or 0.7%) and Eurasian coot (26 or 10%).

267 of the 268 birds were waterbird species. There was one terrestrial species (a Brown quail) included in the total of 268 birds. Brown quail cannot be hunted.

Only game species with scheduled open seasons may be hunted. Non-game ducks and other non-game waterbirds are protected and must not be hunted. Therefore, of the 268 dead birds presented, 212 (79%) were game ducks with open seasons and 56 (21%) were protected species not available for hunting.

Radiography procedure

Each animal was placed in a plastic tub on a 25 x 30cm digital x-ray plate (Exprimer EVS 2430) and radiographed with an Atomscope TR9020B portable veterinary x-ray unit suspended on a surveyor's tripod. Settings of 68 kV and 1.05 mAs, with a focal distance of approximately 50cm, were used. Radiography was performed on some waterbirds in a semi-frozen state. This made the uniform orientation of every animal impossible. Where possible, each animal was positioned on the plate in a dorso-ventral position but this varied. Each digital image was immediately viewed and, if necessary, subsequent radiographs were taken to confirm the presence or absence of embedded shotgun pellets.

Number of birds with embedded shot

Radiography revealed that 115 (43%) of the 268 waterbirds contained embedded shot pellets. These can be classified into game-duck, non-game duck and other waterbird species as follows:

- 99 out of 212 game-ducks (47%) were shown to contain embedded shotgun pellets. This consisted of 14 out of 16 Australian wood ducks, 43 out of 80 Grey teal, 40 out of 113 Pink-eared ducks and two out of two Pacific black ducks.
- Nine out of 15 (60%) non-game ducks which consisted of one out of one (100%) Blue-billed duck, one out of five (20%) Australasian shoveler and seven out of nine (78%) Freckled ducks.
- Seven out of 41 (17%) non-game birds which consisted of five out of 26 (19%) Eurasian coot, one out of nine (11%) Cormorants and one out of two (50%) Moorhen. Therefore, of the 115 waterbirds found to be containing embedded shotgun pellets, 99 (86%) were game ducks and 16 (14%) were protected species.
- When present, game ducks were found to have an average of 1.9 embedded pellets with a range of one to six pellets. All non-game (other) birds that were shown to have embedded shot had a single pellet each. Non-game ducks with shot had an average of 16.2 embedded shotgun pellets. This average was inflated due to the presence of 28 and 99 embedded

pellets, respectively, in two Freckled ducks. Excluding these individuals, the average number of pellets in non-game ducks was 2.7.

Physical state and animal assessment

Birds were transported from Melbourne to Benalla where they were frozen until prior to assessment and radiography. There was a variation in the level of decomposition between specimens, although the majority of birds were intact and appeared to have been recently deceased or had been preserved at low temperatures prior to being deposited at Treasury Place. As with specimens deposited by activists in 2024, there were numerous birds that were highly decayed, making an assessment of injuries outside of the determination of the presence or absence of embedded shotgun pellets impossible. No individuals were defeathered and assessed for shot damage. Physical assessment did not extend beyond a visual examination of each animal and the presence/absence of skin damage, broken bones and obvious trauma. These observations were recorded together with data on embedded shot.

Considerations

There are several key points to consider from this assessment:

- 1) The majority of birds assessed were well preserved but a number were in various stages of decay. This made comparisons of trauma, and the potential causes thereof within and between species difficult.
- 2) There is the potential that shotgun pellets may pass through a shot animal in addition to shot being retained within limbs or the body cavity. The absence of embedded shotgun pellets in radiographs does not conclusively preclude shooting as a cause of death.
- 3) Out of the 153 birds which were found to not have embedded shotgun pellets, 54 of these individuals (35%) were observed to have damage to their bills/beaks, feet or broken limbs; injuries consistent with pellet damage. Therefore, of the 268 birds examined, 169 (63%) showed signs of being shot [i.e. they had embedded pellets (115) and/or broken wings, broken legs and other signs of shot damage to their feet, bills or beaks (54)].
- 4) There was a small number of game ducks which had sustained what appeared to be injuries inconsistent with being struck by shotgun pellets. It was not possible to provide a conclusive outcome of the cause of death for these individuals. One animal had both breasts removed, indicating it had been harvested, processed by a hunter and the carcass discarded.
- 5) One of the Freckled ducks contained 99 embedded shotgun pellets and another 28 pellets. The circumstances under which these individuals contained so many pellets is unknown and inconsistent with the results from other birds containing embedded pellets. The next greatest number of pellets found in any bird was six.
- 6) Of the nine Cormorants assessed, only a single animal contained embedded shot (one pellet). Every one of these animals had immature or developing primary feathers and were likely to be flightless young. With the exception of the individual with the embedded pellet, it is suggested that the majority of these animals did not die from shooting injuries but died from other causes.
- 7) Assessments of radiographs were not conducted by veterinarians or radiologists. Radiographs were the primary tool used to identify evidence of shooting mortality. Obvious skeletal damage has

also been recorded in the master spreadsheet. Radiographs may provide a source of additional information/assessment if considered necessary.

8) This was a preliminary and not exhaustive assessment of the cause of death of these birds. Death by shooting could be inferred by the presence of embedded pellets, however, game ducks are known to survive being shot and may carry embedded pellets for the remainder of their life. Other sources of mortality may have been the cause of death rather than the detected embedded pellet/s. Post-mortem evaluations conducted by trained and experienced experts would be necessary to determine the actual cause of death.