

# Summer duck hunting season harvest and participation in North Canterbury 2025

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*Photo credit: Richard Cosgrove*

## **Executive Summary**

NCFG conducted phone surveys of North Canterbury game bird licence holders to estimate harvest and participation over two distinct periods. The participation rate of NC licence holders in the mallard season was 1.8%, with a total estimated harvest of 300 mallards in North Canterbury and 335 mallards in Central South Island Fish and Game region. The participation rate of the paradise shelduck season was 4.0% in period one and 4.8% in period two, with a total estimated harvest of 4,402 paradise shelducks over the six-week season. An additional 2,150 paradise shelduck were harvested in Central South Island Fish and Game region by North Canterbury licence holders.

## **Introduction**

Summer duck hunting seasons provide more opportunity for game bird licence holders to go harvest some game birds throughout the year. The mallard season allows hunting only on harvested crop fields and spanned the first two weekends in February, the 1<sup>st</sup>-2<sup>nd</sup> and 8<sup>th</sup>-9<sup>th</sup>. The paradise duck season spanned February 1<sup>st</sup> – March 9<sup>th</sup>.

This is the fourth year of implementation of the summer mallard season, with the paradise shelduck season starting over 11 years ago. This was the second season that there was no mallard hunting in Area A in North Canterbury.

North Canterbury Fish and Game (NCFG) staff conducted a survey in 2025 to assess bird hunter sentiments towards and participation in the summer duck season. There are three objectives associated with the summer duck survey:

- 1) Estimate harvest of mallards and paradise ducks
- 2) Estimate participation rates of license holders in the two seasons

## **Methods**

*Survey tool:* North Canterbury Fish and Game staff conducted phone surveys during two periods, February 10<sup>th</sup>-15<sup>th</sup> and March 10<sup>th</sup>-14<sup>th</sup>, with the intent of getting 200 responses per survey period. The first survey period included questions about participation and harvest of mallards and paradise shelducks between February 1<sup>st</sup> and February 9<sup>th</sup>, while the second survey period assessed harvest and participation of paradise shelducks between February 10<sup>th</sup> and March 9<sup>th</sup>. Respondents not surveyed in period one were also asked about the mallard season to boost sample sizes.

*Survey respondents:* The North Canterbury game bird licence database was subset to hunters that had provided phone numbers and held a valid hunting license during the summer hunting season. A random sample of 500 hunters was pulled for each survey period using the sample function in program R. Survey questions are included in appendix 1.

*Analysis:* Harvest estimates were calculated for the each sample frame and then extrapolated across the total number of valid game bird licences in North Canterbury. Estimate methods were updated to reflect the methods of the South Island Hunter Harvest and Activity Report, using bootstrapping to produce harvest and participation estimates and a more consistent estimate of the margin of error (Garrick & Sanders Garrick 2025). Confidence intervals were calculated 95% levels. North Canterbury licence holders that hunted in the Central South Island Fish and Game region (CSI) had data recorded and harvest estimates calculated in the same manner.

## Results

*Mallards:* There were 2,517 adult game bird licence holders that held valid licences during the summer season. Staff successfully completed 380 surveys for the mallard season. There was a 1.8% (CI = 0.8-3.4%) participation rate in the summer mallard season. Participants hunted 1.4 (CI = 0.4-2.7) days and harvested 13.6 (CI = 3.0-26.3) mallards per hunter on average. Total harvest was estimated to be 300 mallards (CI = 0-795) for the four-day season in North Canterbury (Figure 1). Estimated mallard harvest of North Canterbury hunters that hunted in CSI was 335.

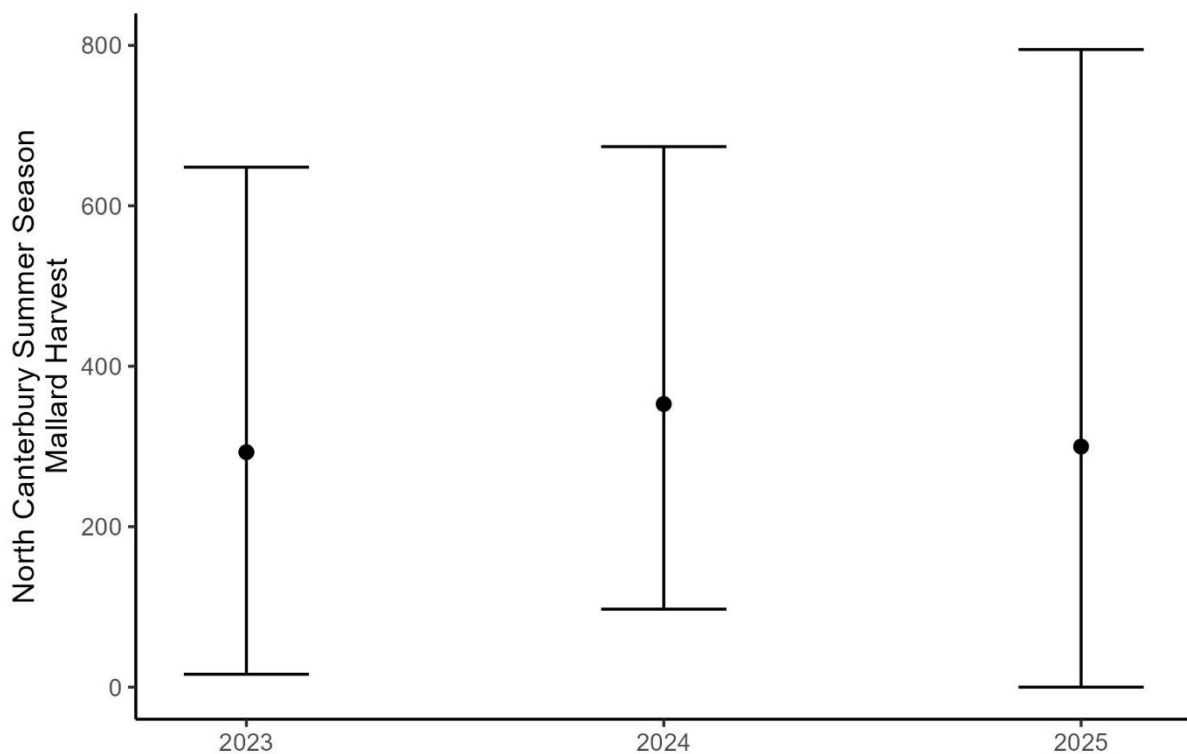


Figure 1. Mallard harvest (+/- 95% Confidence Interval) during the summer season in North Canterbury 2023-2025.

*Paradise shelducks:* There were 200 surveys completed in period one and 186 completed in period two. There was a 4.0% (CI = 1.5-7.0%) participation rate in the first half of the summer paradise shelduck season. Participants hunted 1.1 (CI = 1.0-1.4) days and shot 12.4 (CI = 8.4-16.3) paradise shelducks on average. During the second half of the season there was a 4.8% (CI = 1.5-7.0%) participation rate and participants hunted 3.9 (CI = 1.5-6.6) days and shot 43.8 (CI = 13.2-80.4) paradise shelducks on average. Total harvest was estimated to be 4,402 paradise shelducks (CI = 1,599-8,178) during the whole summer season in North Canterbury (Figure 3). An additional estimated 2,150 paradise shelduck (CI = 0-6,341) were harvested in CSI by North Canterbury licence holders.

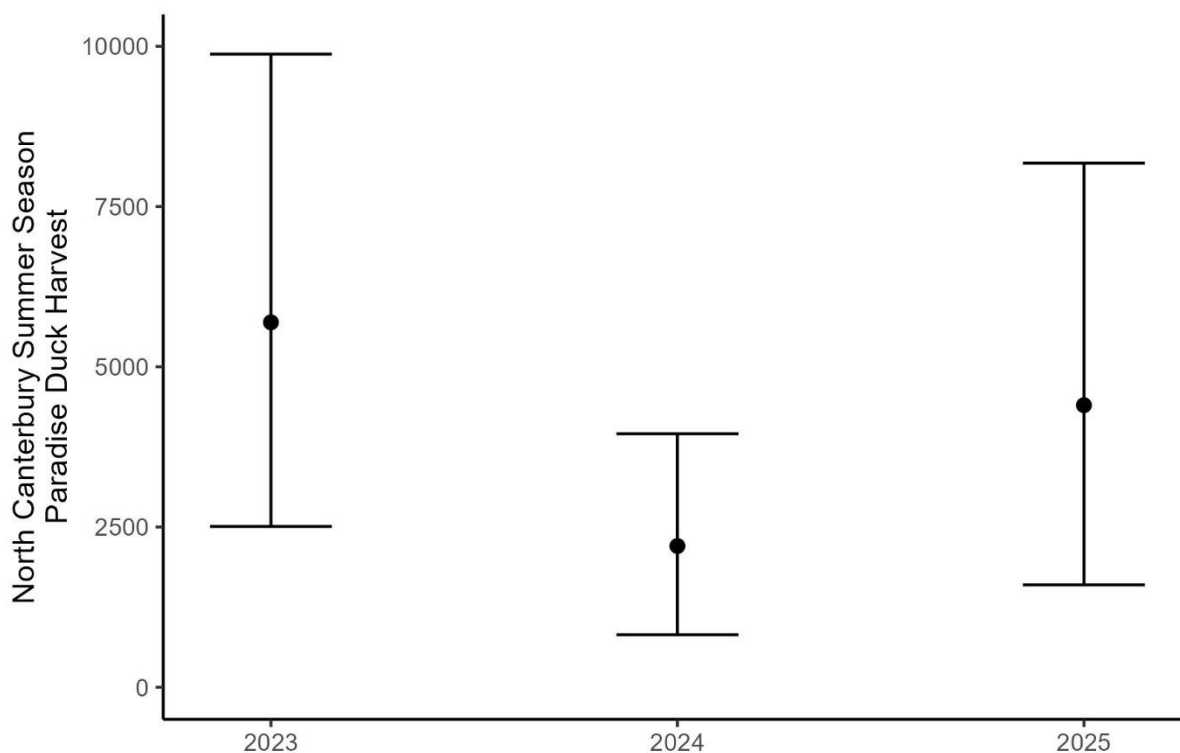


Figure 2. Paradise shelduck harvest (+/- 95% Confidence Interval) during the summer season in North Canterbury 2023-2025.

## Discussion

Hunters in North Canterbury participate in the summer mallard seasons at a low rate, therefore, the two-weekend mallard season constitutes a small amount of harvest. However, this harvest estimate is bias low as the survey was limited to game bird licence holders who purchased their licence from North Canterbury, and it is likely that some hunters that purchase licences in other Fish and Game regions travel to participate in this opportunity that is limited to the Canterbury Plains. That said, because the summer mallard season is limited to crop fields (i.e., no hunting over water), requires specialist hunting equipment (lay out blinds, full body decoys, etc.), and access to private property, it is unlikely that harvest is substantially higher than our estimates.

The summer paradise shelduck season has a slightly higher participation rate than the mallard season, and hunters have proven to be quite successful. Harvest in 2025 was similar to harvest over the last couple of seasons.

Previous work has shown there is strong support among licence holders for the summer seasons (Garrick and Sanders Garrick 2023). Additionally, these seasons remain an important management tool to disperse birds that may be causing nuisance damage on farmland, as well as adding extra value to the game bird licence by providing more opportunities to hunt. However, continued harvest monitoring is of utmost importance to ensure sustainability of game bird populations for the future hunters of the Canterbury Plains.

Notably, the bootstrapping methods used this year illustrated a skewed distribution in harvest estimates, indicating sample sizes are too small given the low participation rates in the summer seasons for precise estimates of harvest. It is not feasible to increase sampling effort, however there is an opportunity to develop a stratified sampling scheme. During each call period of the 2025 regular season harvest survey, hunters will be asked whether they have

participated in a summer duck season in Canterbury over the last five years. This will allow us to develop a list of “known summer hunters” that will be used to stratify our sample. This will greatly increase the accuracy of the harvest estimate.

### **Management Implications**

North Canterbury has some of the most liberal duck seasons in the country. As a result, these seasons are likely utilised by out-of-region game bird licence holders. Currently there is no understanding of the extent of participation of non-licenced hunters (landowner-occupiers). It is of paramount importance to better understand the extent of participation from these non-licence holders and out-of-region hunters to provide better insight into harvest in the region.

### **Literature Cited**

Garrick, M.J., and Sanders Garrick, H. 2023. Summer duck hunting season harvest, participation, and satisfaction in North Canterbury. Internal Fish and Game report.

Garrick, M.J., and Sanders Garrick, H. 2025. South Island Hunter Harvest and Activity Report 2024. New Zealand Fish & Game.

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## **Appendix 1**

### *Period 1 survey*

- 1) Did you participate in the summer mallard season? (If yes, answer questions 2-4)
- 2) What was the nearest town?
- 3) How many days did you hunt?
- 4) How many mallards did you harvest?
- 5) Did you participate in the summer paradise duck season in North Canterbury between February 1<sup>st</sup> and February 9<sup>th</sup>? (If yes, answer questions 6-8)
- 6) What was the nearest town?
- 7) How many days did you hunt?
- 8) How many paradise shelducks did you harvest?

### *Period 2 survey*

- 1) Did you participate in summer mallard season? (If yes, answer questions 2-4; omitted if hunter was also surveyed during period 1)
- 2) What was the nearest town?
- 3) How many days did you hunt?
- 4) How many mallards did you harvest?
- 5) Did you participate in the summer paradise duck season between February 10<sup>th</sup> and March 9<sup>th</sup>? (If yes, answer questions 2-7)
- 6) What was the nearest town?
- 7) How many days did you hunt?
- 8) How many paradise shelducks did you harvest?