

# **Summer duck hunting season harvest, participation, and satisfaction in North Canterbury**

## **2023**

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*Photo credit: Richard Cosgrove*

## **Executive Summary**

NCFG conducted phone surveys of North Canterbury game bird licence holders to estimate harvest, participation, and satisfaction with the summer game bird seasons over two distinct periods. The participation rate of NC licence holders in the mallard season was 3.1%, with a total estimated harvest of 298 mallards. The participation rate of the paradise shelduck season was 7.3% in period one and 7.8% in period two, with a total estimated harvest of 5,991 paradise shelducks over the seven-week season. There was overwhelming support for both the mallard season (68.8%) and the paradise shelduck season (81.1%).

## **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 4<sup>th</sup>-5<sup>th</sup> and 11<sup>th</sup>-12<sup>th</sup>. The paradise duck season spanned January 28<sup>th</sup> – March 12<sup>th</sup>.

This is the second year of implementation of the summer mallard season, with the paradise shelduck season starting over 10 years ago. However, little is known about participation, harvest, and support levels of these summer seasons in North Canterbury.

North Canterbury Fish and Game (NCFG) staff conducted a survey in 2023 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
- 3) Gauge satisfaction and support for summer duck seasons

## **Methods**

*Survey tool:* North Canterbury Fish and Game staff conducted phone surveys during two periods, February 13<sup>th</sup>-17<sup>th</sup> and March 13<sup>th</sup>-18<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 January 28<sup>th</sup> and February 12<sup>th</sup>, while the second survey period assessed harvest and participation of paradise shelducks between February 13<sup>th</sup> and March 12<sup>th</sup>. Level of support questions for both mallard and paradise shelduck summer hunting seasons were asked in both survey periods.

*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. Hunters that were sampled during both survey periods were only asked level of support questions once. 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. Confidence intervals were calculated for participation rates and support of summer seasons at 95% levels.

## **Results**

*Mallards:* There were 2,642 game bird licence holders that held valid licences during the summer season. This count excludes 102 day licences that were purchased during the regular duck season, but includes day licences purchased during the summer season. Staff successfully completed 163 surveys during survey period one. There was a 3.1% (0-10.4% CI) participation rate in the summer mallard season. Participants hunted 1.0 (SE = 0.0) days and harvested 3.6 (SE = 1.3) mallards per hunt on average. Total harvest was estimated to be

292 mallards (SE = 92.5) for the four-day season (Figure 1). In general terms of hunter support for the mallard summer season, 68.8% (63.7-73.8% CI) of hunters supported it, 18.7% (13.5-23.7% CI) did not care, and 12.5% (7.4-17.6% CI) did not support the season (Figure 2).

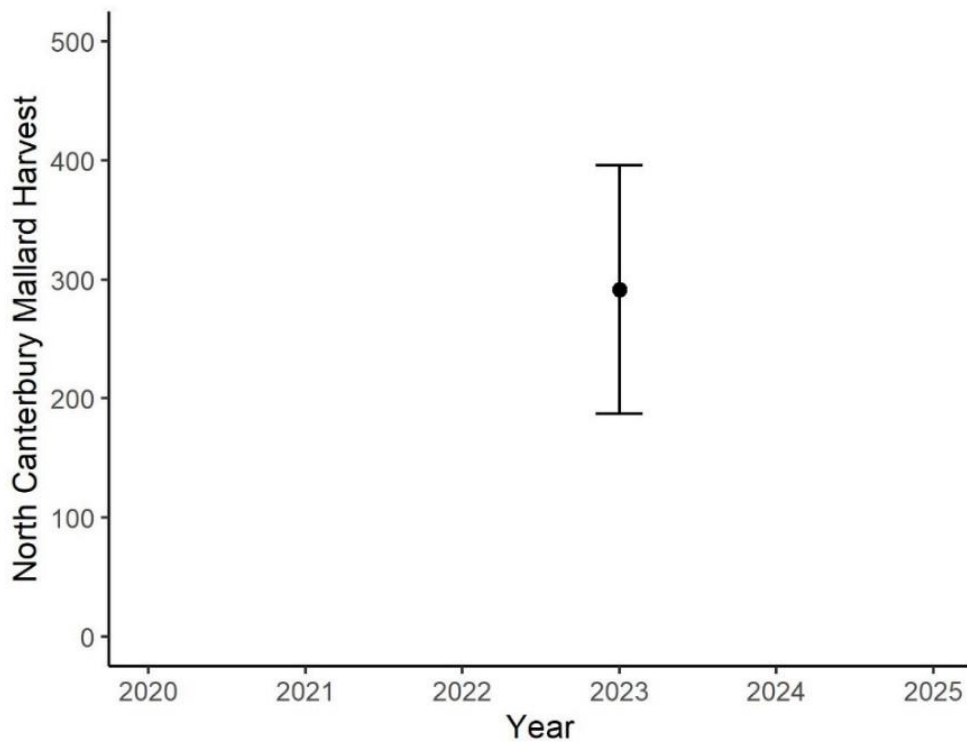


Figure 1. Mallard harvest (+/- standard error) during the summer season in North Canterbury in 2023.

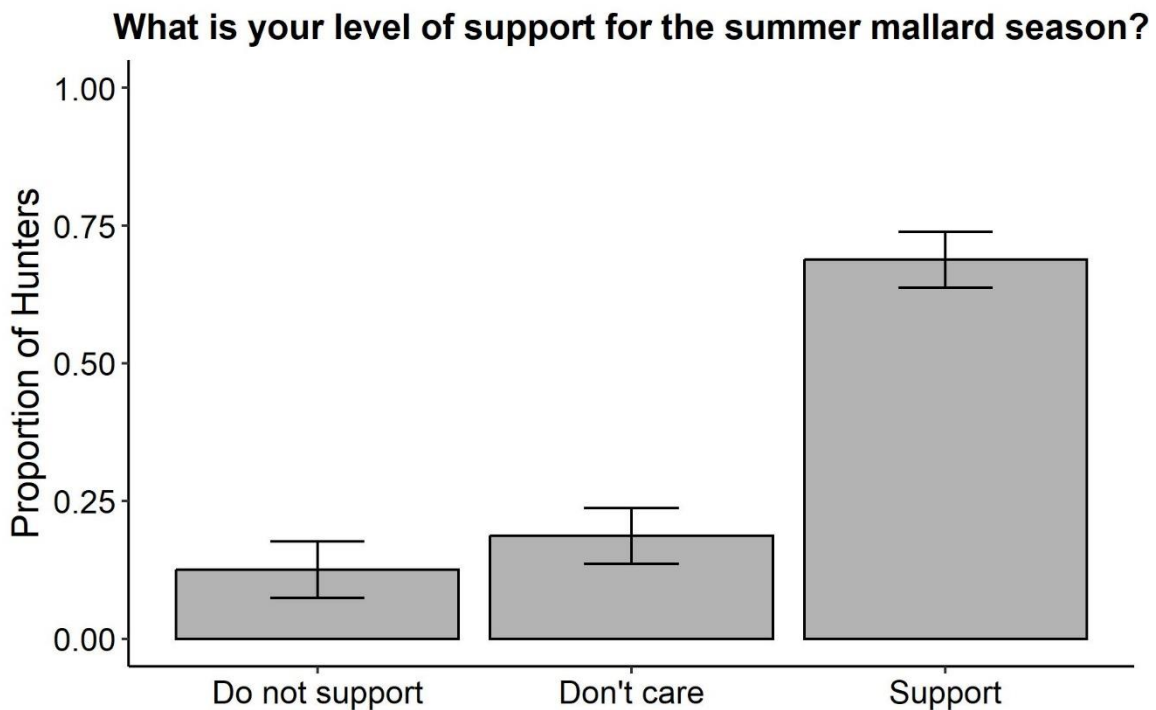


Figure 2. Levels of support for the mallard summer season in North Canterbury in 2023.

*Paradise shelducks*: There was a 7.3% (0.0-14.8% CI) participation rate in the first half of the summer paradise shelduck season. Participants hunted 1.8 (SE = 0.4) days and shot 17.1 (SE = 8.7) paradise shelducks on average. During the second half of the season there was a 7.8%

(0.7-14.9% CI) participation rate and participants hunted 1.6 SE = 0.2) days and shot 14.3 ( $\pm$  3.2) paradise shelducks on average. Total harvest was estimated to be 5,991 paradise shelducks (SE = 2,224.1) during the whole summer season (Figure 3). In general terms of hunter support for the paradise shelduck summer season, 81.1% (76.0-86.2% CI) of hunters supported it, 13.7% (8.6-18.8% CI) did not care, and 5.1% (0.1-10.2% CI) did not support the season (Figure 4).

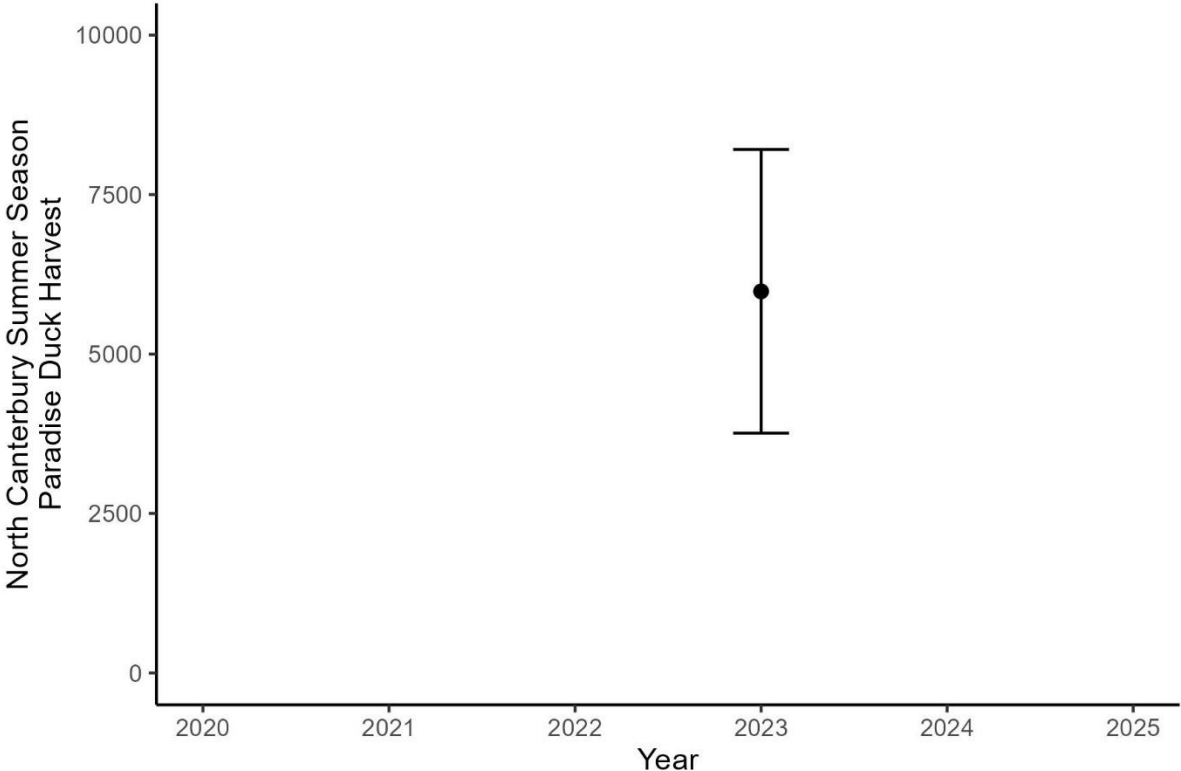


Figure 3. Paradise shelduck harvest (+/- standard error) during the summer season in North Canterbury in 2023.

**What is your level of support for the summer paradise duck season?**

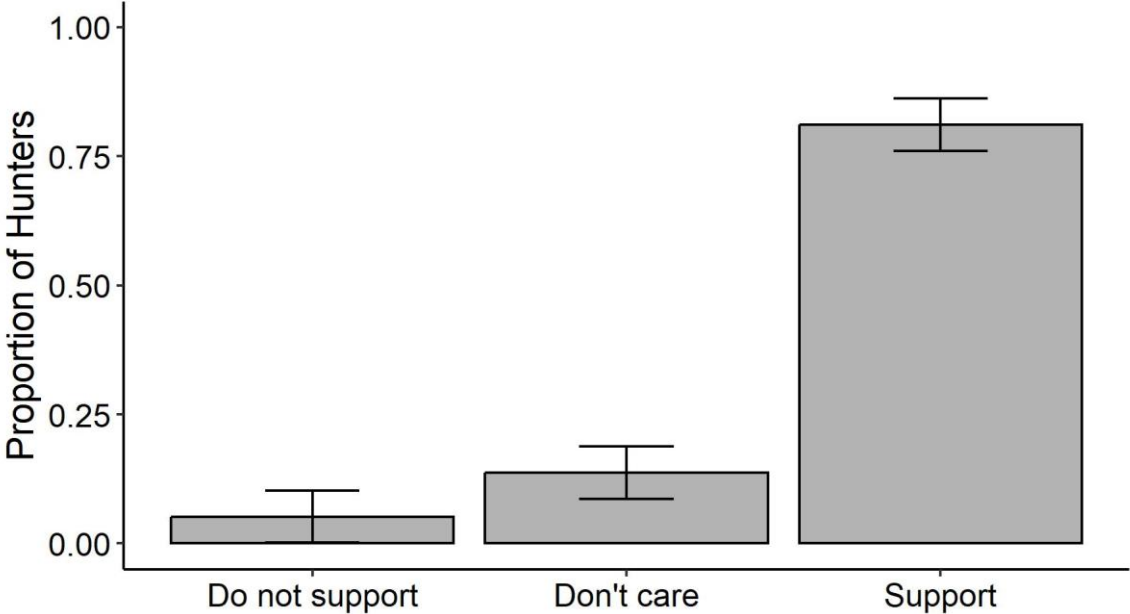


Figure 4. Levels of support for the summer paradise shelduck season in North Canterbury in 2023.

## **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. Total summer season mallard harvest in North Canterbury was equivalent to 0.9%-2.7% of Opening Weekend mallard harvest over the last five years. 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. There does appear to be a general perception among hunters that do not support the mallard season that the season is “unsustainable,” due to the presumption of high levels of harvest. This belief may come from social media where a few avid hunters post their successful hunts showing multiple hunters with their daily bag limit of mallards. Despite these few hunts that bag out, total harvest is still relatively low due to low participation rates. Additionally, most hunters participating in the summer mallard season are not shooting their bag limit.

The summer paradise shelduck season has a slightly higher participation rate than the mallard season, and hunters have proven to be quite successful. Harvest during the seven-week season is similar to the regular season (May-July) paradise shelduck harvest during the years 2013-2020. Similar to the mallard season, these estimates will be biased low as only North Canterbury licence holders were surveyed. Support for the paradise shelduck summer season is slightly higher than the mallard season, with most of the lack of support coming from people who feel it reduces their success during the hunting season opener in May.

## **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.

## **Acknowledgements**

We thank E. Craig, R. Cosgrove, H. Gabrielsson, H. Graham-Samson, and L. Slater for conducting phone interviews, as well as the many licence holders that took the time to answer the phone and respond to the surveys.

## Appendix 1

### *Period 1 survey*

- 1) Did you participate in the summer mallard season in North Canterbury? (If yes, answer questions 2-7)
- 2) What area did you hunt in?
- 3) How many days did you hunt?
- 4) How many mallards did you harvest?
- 5) How satisfied were you with the timing of the mallard summer season?
- 6) What did you think of the length of the mallard summer season?
- 7) What did you think about the size of the bag limit during the mallard summer season?
- 8) Did you participate in the summer paradise duck season in North Canterbury between January 27<sup>th</sup> and February 12<sup>th</sup>? (If yes, answer questions 9-14)
- 9) What area did you hunt in?
- 10) How many days did you hunt?
- 11) How many paradise shelducks did you harvest?
- 12) How satisfied are you with the timing of the paradise shelduck season?
- 13) What did you think of the length of the paradise shelduck season?
- 14) What did you think of the bag limit during the paradise shelduck season?
- 15) What is your level of support for the mallard summer season? (If do not support, answer 16)
- 16) Reasoning for lack of support?
- 17) What is your level of support for the paradise shelduck summer season? (If do not support, answer 18)
- 18) Reasoning for lack of support?

### *Period 2 survey*

- 1) Did you participate in the summer paradise duck season in North Canterbury between February 13<sup>th</sup> and March 12<sup>th</sup>? (If yes, answer questions 2-7)
- 2) What area did you hunt in?
- 3) How many days did you hunt?
- 4) How many paradise shelducks did you harvest?
- 5) How satisfied are you with the timing of the paradise shelduck season?
- 6) What did you think of the length of the paradise shelduck season?
- 7) What did you think of the bag limit during the paradise shelduck season?
- 8) What is your level of support for the mallard summer season? (If do not support, answer 16)
- 9) Reasoning for lack of support?
- 10) What is your level of support for the paradise shelduck summer season? (If do not support, answer 18)
- 11) Reasoning for lack of support?