

**Alberta Conservation Association
2022/23 Project Summary Report**

Project Name: Landowner Hunting Access Survey

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We greatly appreciate the work of Graham Epstein (consultant), who completed much of the analysis presented in this report.

Partnerships

Alberta Beef Producers

Alberta Crop Sector Working Group

Alberta Environment and Protected Areas

Alberta Fish & Game Association – Minister’s Special Licence Program

Alberta Professional Outfitters Society Wildlife Management Fund

Alberta Wheat & Barley Commissions

Cabela’s | Bass Pro Shops

Creative Motion Publishing

Glacier FarmMedia

Municipal district and county offices across the province

University of Alberta

University of Waterloo

Western Stock Growers’ Association

Key Findings

- In 2021, we conducted a voluntary online survey, designed with input from social scientists at the universities of Alberta and Waterloo, to understand the viewpoint of private landholders on allowing hunting access on their land.
- We received 2,036 responses from across the province and summarized some of the interesting findings into infographics.
- Survey findings indicated that landowners with smaller properties and greater concerns about hunters are less likely to allow public hunting.
- Although many landowners are willing to permit hunting access, they express concerns about respect.

Abstract

In 2021, we conducted a voluntary online survey, designed with input from social scientists at the universities of Alberta and Waterloo, to understand the views of private landholders on allowing hunting access on their land. While the survey results do not represent all Alberta landowners' viewpoints, they offer general information on common patterns. We received 2,036 responses from across the province and summarized some of the interesting findings into infographics. We also examined a subset of survey participants who permit hunting on their property and discovered that property size and concerns related to hunters have the most substantial impact on landowners' decisions to grant public hunting access. Generally, landowners with larger landholdings are more likely to allow hunting to the public, whereas those with holdings of less than 100 acres were very unlikely to permit it. We also found that concerns such as trespassing, safety, property damage, and poaching reduce the chance that a landowner allows public access to their land for hunting. Further analysis and reporting on the survey will take place in 2023/24.

Introduction

Over the past century, hunters have been instrumental in ensuring sustainable wildlife management in Alberta. Resident hunters and outfitters (including their clients) contribute millions of dollars annually to conservation activities through licence purchases and volunteer

work. They are often the first to raise concerns about changes in wildlife populations and habitats, underscoring the intrinsic and economic value of wildlife for a significant segment of society. The preservation of hunting in Alberta supports the long-term conservation and management of wildlife in the province.

However, declining hunter numbers have been a major concern for wildlife managers and conservation organizations across North America (Ryan and Shaw 2011, Larson et al. 2013). Although Alberta has fared better than many other jurisdictions (Sillars 2020), finding places to hunt, especially those that are not overcrowded, is still one of the greatest challenges in developing and maintaining an interest in hunting.

Rural landowners in Alberta play a crucial role in providing quality hunting opportunities for those without their own land, indirectly influencing hunter retention and recruitment. Nonetheless, the hunter-landowner dynamic may be changing, as some have suggested. The purpose of this project is to survey landowners to gain a better understanding of their perspective on the dynamics at play regarding hunter access on private lands.

Methods

We created a survey for private landowners using Qualtrics, an online survey software, in collaboration with social science researchers at the University of Alberta (Dr. Howie Harshaw) and University of Waterloo (Dr. Jeremy Pittman), with some initial input from Alberta Conservation Association (ACA) stakeholders. The survey was distributed through ACA's social media and other online platforms and print media, and responses were collected automatically. The survey asked respondents about their views toward hunting on their property and how they make decisions about who can hunt and what factors may lead them to restrict hunting. A subset of interesting survey results were summarized into infographics using a combination of text, images, and graphics to present the information in a clear and easy to understand format. We also completed a more involved analysis of factors that may influence landowners to grant hunting permission to members of the public. To do this, we used a machine learning algorithm called Gradient Boosted Decision Trees (GBDT). This algorithm chooses the factors that are best suited for predicting the answer to a survey question and identifies their relative influence. Using GBDT, we analyzed a subset of survey respondents who allow hunting on their land, and

therefore, any conclusions drawn from the analysis should be limited to this particular group of landowners in Alberta.

Results

We received a total of 2,036 survey responses, which allowed for the development of insights into the relative importance of various factors that may influence hunting on private land in Alberta, from a landowner's perspective. Our findings suggest that property size and level of concerns about hunters have the most influence on predicting public access. Generally, landowners with larger landholdings are more likely to allow hunting to the public, whereas those with smaller holdings (under 100 acres) were very unlikely to permit it. For landowners with landholdings between 1,000 and 3,000 acres, the likelihood of granting permission varies between 45% and 55%. Interestingly, there is a non-linear relationship between grazing area and the likelihood of granting permission to the public, with the highest values observed for landowners who have either a small fraction or a significant majority of their land under grazing. Hunting concerns related to safety, trespassing, liability, and poaching influenced the willingness of landowners to allow the public to hunt on their land (Figure 1). Overall, landowners with smaller properties and higher levels of concern about hunters are less likely to grant permission for hunting to members of the public.

Hunting Access Concerns

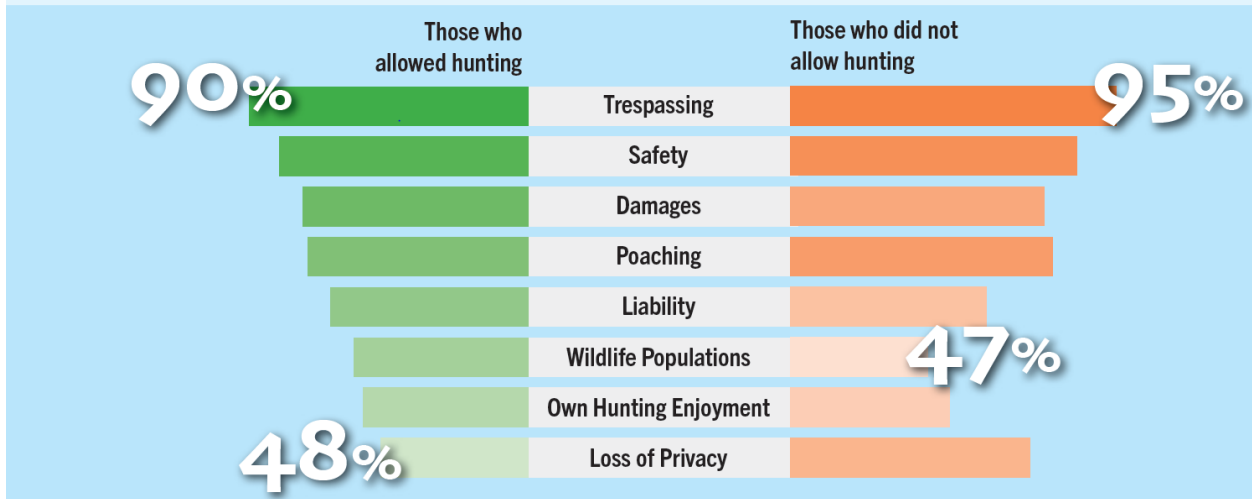


Figure 1. The values shown in the figure represent the percentage of survey respondents who identified each concern. Respondents who identified a greater number of concerns were found to be less likely to permit public hunting on their land compared to those who identified fewer concerns (ACA Landowner Hunter Access Survey Infographic at www.albertahunteraccess.com, accessed March 6, 2023).

Infographics highlighting important trends or patterns in the survey data were posted to the ACA website and can be accessed at www.albertahunteraccess.com (accessed March 6, 2023).

Conclusion

Our survey gathered Alberta landowners' opinions on allowing public hunting access on private property, providing us with valuable insights into the factors that may influence their willingness to grant permission. Our findings indicate that landowners with smaller properties and greater concerns about hunters are less likely to allow public hunting. Although many landowners are willing to permit hunting access, they express concerns about respect. In the next year, we will collaborate with our academic partners to publish a detailed report of our results in an open-access scientific journal.

Communications

- Four infographics were produced to share survey results with the public. These infographics were also shared with survey respondents who had indicated that they were interested in hearing about the results of the survey.
- Information from the infographics were used to produce two roll-up banners, which can be utilized as part of tradeshow and other ACA promotional displays.
- Amanda MacDonald provided a presentation on the landowner and hunter survey results to the Alberta Fish & Game Association conference in Edmonton (February 24, 2023).

Literature Cited

- Larson, L.R., D.J. Decker, R.C. Stedman, W.F. Siemer, M.S. Baumer, and J.W. Enck. 2013. *Hunter Recruitment and Retention in New York: A Framework for Research and Action*. Human Dimensions Research Unit Series Publication 13-04. Department of Natural Resources. Cornell University, Ithaca, New York, United States of America. 72pp.
- Ryan, E.L. and B.R. Shaw. 2011. Improving Hunter Recruitment and Retention. *Human Dimensions of Wildlife* 16(5): 311-317.
- Sillars, J. 2020. *Hunting is Declining across North America—except in Alberta. Here’s How*. MeatEater, Inc. Available online at www.themeateater.com/hunt/whitetail-deer/hunting-is-declining-across-north-america-except-in-alberta-heres-how (accessed February 11, 2022).

Photos

Not applicable