# North American Waterfowl Hunting Survey Canadian Mississippi Flyway Technical Report

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H.W. Harshaw
Faculty of Kinesiology, Sport, and Recreation
University of Alberta
Edmonton, Alberta

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#### 1. Introduction.

Waterfowl hunters have, and continue to, play an important role in the conservation of waterfowl species. They provide financial support for conservation programs and habitat acquisition, protection, restoration and enhancement; they also assist in the monitoring of waterfowl populations and play important roles in population management (Heffelfinger, Giest & Wishart, 2013). Although national surveys have documented recreation use, activity categories have not been consistent to allow for the identification of participation trends: in 1996, 235,000 Canadians hunted waterfowl; in 2012, 2.1 million Canadians participated in hunting and trapping (Federal-Provincial-Territorial Task Force on the Importance of Nature to Canadians, 1999; Federal, Provincial, and Territorial Governments of Canada, 2014). Some provincial-level studies suggest a decline in hunting participation; for example, participation in hunting in Alberta declined by 28% and hunter retention declined by 30-35% between 1990 and 2000 (Watson & Boxall, 2005). One reason for changes in hunting participation is changes in social structures that support hunting traditions due to increased urbanization (Watson & Boxall, 2005). In response to this decline of the number of waterfowl hunters, and in an effort to broaden the base of waterfowl and wetland conservation supporters, the North American Waterfowl Management Plan (NAWMP) introduced the goal of "Growing the numbers of waterfowl hunters, other conservationists, and citizens who enjoy and actively support waterfowl and wetlands conservation" (North American Waterfowl Management Plan, 2012, p. 2). In an effort to address this goal, waterfowl hunters were engaged in a continental survey to examine their motivations for participation, and their preferences for waterfowl and wetlands management objectives. Knowing more about waterfowl hunters' attitudes, behaviours, priorities, and characteristics will aid in understanding Canadians' participation in nature-based activities and conservation priorities more generally. Furthermore, this research will inform waterfowl hunting and wetland management policies.

The ultimate success of the NAWMP depends on maintaining its relevance to stakeholders and society. Better understanding what people value about waterfowl and their habitats can foster this relevancy. Without this information, NAWMP population, habitat, and people objectives may not reflect stakeholder and societal values, and management and policy decisions may lead to actions that could be either irrelevant or counter to stakeholder and societal expectations. This study integrated several fields of research, including outdoor recreation, environmental sociology, and wildlife management. This study developed, delivered, and analyzed a survey of adult Canadian waterfowl hunters. The survey elicited waterfowl hunter participation characteristics, information about identify, and knowledge about, interest in, and preferences for waterfowl and wetland conservation.

# 2. Study Objectives.

This study is part of a larger North American initiative to examine people's interactions with waterfowl and wetlands in order to understand the dynamics of these interactions, and how the motivations for these interactions appear to have shifted from consumption to appreciation. This research investigated the characteristics that influence waterfowl hunting participation in Canada, and permit a broader examination of waterfowl conservation in a North American context. This effort represents the first continental effort to actively engage the broad range of stakeholders in the process of developing objectives for waterfowl and wetlands management. Six objectives framed the development of this study:

- Assess what waterfowl hunters and other waterfowl conservationists (i.e., bird watchers/birders) most desire from their natural resource-based management and social settings to inform NAWMP objectives and select habitat and population management alternatives.
- 2. Establish baseline measures that can be repeated to inform the development of a Public Engagement Strategy and monitor trends in achieving the NAWMP goal of "growing numbers of waterfowl hunters, other conservationists, and citizens who enjoy and actively support waterfowl and wetlands conservation."
- 3. Assess waterfowl hunters' and conservationists' knowledge, preferences, levels of use and support for waterfowl and wetlands conservation.
- 4. Assess the general publics' participation in waterfowl associated recreation and how much they support waterfowl and wetlands conservation.
- 5. Assess the general publics' awareness and their perceptions regarding the importance of the benefits and values (*i.e.*, Ecological Goods and Services EGS) provided by waterfowl and wetlands conservation.
- 6. Assess waterfowl professionals' perspectives on the levels of waterfowl populations and habitats needed to support hunter and viewer use opportunities.

The expected outcomes of these studies were:

- 1. Quantified measures of stakeholder preferences;
- 2. A greater likelihood of developing NAWMP objectives and management actions that are informed by waterfowl and wetland stakeholders; and
- 3. A focus on harvest management actions that will provide the greatest benefits in terms of stakeholder preferences within the context of what is biologically feasible.

The key research was completed by a collaborative research team at the University of Alberta, the U.S. Geological Survey's Fort Collins Science Center, and the Minnesota Cooperative Research Unit located at the University of Minnesota.

#### 3. Study Design & Methods.

The development of baseline measures for waterfowl hunting focused on participants' decisions, identity, and capacity. Individual *decisions* to participate in waterfowl hunting are reflected in participation patterns; questions about decisions inform baseline participation levels in waterfowl hunting, and on waterfowl hunters' degrees of recreation specialization and types of participation. Measures of *identity* formation focused on determining the degree of specialization that waterfowl hunters have achieved (*i.e.*, an individual's formation of their identity as a waterfowl hunter). Long-term sustainability of waterfowl and wetlands depends on building support and relevancy: it is a matter of maintaining or increasing the *capacity* to increase waterfowl populations, protect and restore habitat, and the activities people enjoy that involve waterfowl and wetlands. *Institutional capacity* can be thought of in terms of the social, political, economic, and human capital. The survey examined the levels of social, political, economic, and human capital that waterfowl hunters provide to waterfowl and wetland conservation.

A discrete choice experiment formed part of the survey. In stated choice experiments, people are presented a range of hypothetical choice sets. Each choice set includes a different combination of levels associated with each attribute of a product or plan; waterfowl and wetlands management elements could be thought of as the attributes. For example, choice sets might include different combinations of the attributes: waterfowl population size, amount of habitat, participation level, number of other recreationists present, and success rate. The choice set attributes were determined by workshops conducted with waterfowl hunters across Canada in the Winter of 2016. The discrete choice experiment provides quantified measures of waterfowl hunters' preferences for potential conditions influencing waterfowl hunting experiences, and management actions and objectives. This approach is designed to help understand how individuals evaluate trade-offs when making choices that involve multiple dimensions, such as attributes related to waterfowl populations, habitat, and social and managerial conditions. For example, a duck hunter may consider hunting season length, bag limit size, potential to see ducks, potential to harvest ducks, travel distance, and other factors when deciding whether to purchase a waterfowl hunting license.

#### 3.1. Questionnaire Development.

The core design team for the *National Waterfowl Hunting Survey* included Human Dimensions Working Group (HDWG) members from the Atlantic, Mississippi, Central and Pacific Flyways. This team held multiple meetings and webinars to identify appropriate sampling approaches and questionnaire design elements. In addition to achieving the study objectives and implementing the discrete choice experiments on hunting preferences, the hunter surveys included questions about three important areas identified by the HDWG as important (*i.e.*, decisions, identity, and capacity). A brief description for each question follows. Copies of the English and French questionnaires can be found in Appendix A.

3.1.1. Question 1: Participation in Waterfowl Hunting.

Q1 Which of the following statements best describes your pursuits in waterfowl hunting?

This question asked about participation in waterfowl hunting (ducks and geese). This question served to establish respondents' qualifications as waterfowl hunters. If respondents did not hunt ducks or geese, they were directed to the end of the survey and thanked for their time (*i.e.*, they are not permitted to complete the survey).

3.1.2. Question 2: Age When Waterfowl Hunting Began.

**Q2** How old were you when you started waterfowl hunting?

This question asked about when respondents started waterfowl hunting in order to provide a sense of the duration of their participation in this activity.

3.1.3. Question 3: Participation in Waterfowl Hunting in Last Five Years.

Q3 How many years of the last 5 years have you hunted waterfowl?

This question asked about respondents' participation in waterfowl hunting in the past five years to establish the avidity of their waterfowl hunting. If respondents indicated that they had not hunted waterfowl in any of the past five years, they are directed to the end of the survey and thanked for their time (*i.e.*, they are not permitted to complete the survey).

3.1.4. Question 4: Average Number of Ducks/Geese Harvested Each Year Over Last Five Years.

**Q4 Ducks** Over the last five years, about how many DUCKS did you harvest in a year ON AVERAGE?

**Q4 Geese** Over the last five years, about how many GEESE did you harvest in a year ON AVERAGE?

These two questions measured respondents' average harvest of ducks and geese. If respondents indicated in Question 1 that they only hunted ducks, they were directed to *Q4 Ducks*; if respondents indicated in Question 1 that they only hunted geese, they were directed to Q4 Geese; if respondents indicated that they hunted ducks and geese, they were directed to *Q4 Ducks* and *Q4 Geese*.

3.1.5. Question 5: Average Frequency of Waterfowl Hunting Participation Over Last Five Years.

**Q5** Over the last five years, about how many days did you usually hunt WATERFOWL in a year?

This question sought to quantify respondents' annual frequency of waterfowl hunting participation based on their activity over the last five years.

3.1.6. Question 6: Frequency of Waterfowl Hunting Participation in 2016.

**Q6** During LAST YEAR'S (2016) waterfowl hunting season, how many days did you hunt for WATERFOWL?

This question sought to quantify respondents' annual frequency of waterfowl hunting participation in 2016.

3.1.7. Question 7: Waterfowl Hunting Satisfaction and Need to Shoot Daily Limit.

**Q7** How many times do you feel that you need to shoot a daily bag limit of ducks/geese to have a satisfying season?

This question asked about respondents' satisfaction with the waterfowl hunting season relative to the number of times that they shot a daily limit of waterfowl.

3.1.8. Question 8: Number of Times a Daily Limit was Shot in 2016.

Q8 How many times did you shoot a limit of ducks/geese last year's season (2016)?

This question asked how often respondents' shot a daily limit of waterfowl in 2016.

3.1.9. Question 9: Social Circumstances of Waterfowl Hunting Trip Planning.

Q9 Under what circumstances do you typically go hunting?

This question elicited information about the social circumstances of waterfowl hunting trip planning. Respondents were asked whether they typically go waterfowl hunting...

- When I plan the hunt myself
- When someone else invites me
- Both when I plan the hunt or someone else invites me

3.1.10. Question 10: Flyway and Jurisdiction in Which Waterfowl Hunting Occurs Most Often.

**Q10a** In which Flyway did you hunt most often last year (2016) or the year you last hunted?

**Q10b** In which Canadian Province/Territory or US State have you hunted waterfowl most often over the past 5 years?

These two questions asked respondents to identify the Flyway and jurisdiction in which they hunted waterfowl in order to get a sense of the geographical distribution of waterfowl hunting (as opposed to where they reside); respondents could also identify a US State if that was where they hunted waterfowl most often. The identification of the Flyway where respondents' hunted for waterfowl most often directed respondents to Flyway specific questions about the importance of hunting for different waterfowl species in Question 13 (below).

3.1.11. Question 11: Waterfowl Hunting Trip Duration.

Q11 Do you primarily take day trips or overnight/multi-day trips when you waterfowl hunt?

Respondents were asked to characterize the duration of their waterfowl hunting trips as primarily being day trips or multi-day trips.

3.1.12. Question 12: Jurisdiction of Waterfowl Hunting Experiences.

Q12 Please indicate where you do most of your waterfowl hunting?

In order to get a sense of the jurisdictions in which waterfowl hunting takes place, respondents were asked to indicate where they pursued most of their waterfowl hunting:

- Public land or waters;
- Private property owned by you, your family or in partnership with someone else;
- Private property owned by a friend or another landowner who gives you permission to hunt for free;
- Private property you lease or pay to hunt on; or
- Guest on private property someone else leases or pays to hunt on.

3.1.13. Question 13: Importance of Hunting Different Waterfowl Species by Flyway.

Q13 How important is it to you to hunt the following in the Pacific / Central / Mississippi / Atlantic Flyway?

Waterfowl hunters can have preferences for the species of waterfowl that they seek to harvest; the distribution of these species differs by Flyway. Based on where respondents' hunted waterfowl most often in 2016 or the year that they had last hunted (*i.e.*, Question 10a), they were directed to Flyway-specific questions about the importance of hunting different waterfowl species (importance was measured using a five-point interval response). Respondents that hunted waterfowl in the Pacific Flyway most often were asked about the importance of hunting for:

- Diving ducks (e.g., scaup/bluebills, canvasback, redheads, etc.);
- Seaducks (e.g., scoter, eider, long-tail, etc.);
- Mallards;
- Pintails:
- Other dabbling ducks (e.g., teal, wood duck, etc.); and
- Geese.

Respondents that hunted waterfowl in the Central Flyway most often were asked about the importance of hunting for:

- Diving ducks (e.g., scaup/bluebills, canvasback, redheads, etc.);
- Mallards;
- Other dabbling ducks (e.g., gadwall, pintails, teal, etc.); and
- Geese.

Respondents that hunted waterfowl in the Mississippi Flyway most often were asked about the importance of hunting for:

- Diving ducks (e.g., scaup/bluebills, canvasback, redheads, etc.);
- Mallards;
- Other dabbling ducks (e.g., gadwall, pintails, teal, etc.); and
- Geese.

Respondents that hunted waterfowl in the Atlantic Flyway most often were asked about the importance of hunting for:

- Diving ducks (e.g., scaup/bluebills, bufflehead, canvasback, ring- necked duck, etc.);
- Seaducks (e.g., scoter, eider, and long-tailed);
- Mallards;
- Wood ducks;
- Black ducks:
- Other ducks (e.g., teal, pintails, etc.);
- Canada geese;
- Snow geese; and
- Brant.

#### 3.1.14. Question 14: Constraints to Waterfowl Hunting.

**Q14** Please indicate how much of a problem the following are in the province / territory where you hunt waterfowl most.

Constraints in outdoor recreation refer to "... factors that... limit the formation of leisure preferences and/or inhibit or prohibit participation and enjoyment of leisure" (Jackson, 2000, p. 62). Constraints include *intrapersonal constraints* (*i.e.*, individual psychological qualities that affect the formation of leisure preferences, such as anxiety, perceived lack of skill); *interpersonal constraints* (*i.e.*, social factors that affect the formation of leisure preferences, such as friends or family members who prefer similar or other activities), and *structural constraints* (*i.e.*, factors that occur after leisure preferences are formed but before actual participation takes place, such as lack of time, lack of money) (Walker & Virden, 2005). Respondents were asked to indicate, using a five-point interval scale, how much of a problem interpersonal constraints (*i.e.*, crowding at hunting areas, hunting pressure, interference from other waterfowl hunters, and conflict with other waterfowl hunters in places where I hunt) and structural constraints (*i.e.*, lack of public places for waterfowl hunting) were in the provinces and/or territories where they hunted waterfowl most. Intrapersonal constraints were not asked about.

3.1.15. Satisfaction with Duck Hunting Management.

Q15 In the province / territory where you hunt ducks most often, how dissatisfied or satisfied are you with...

Satisfaction is a central concept in the field of outdoor recreation research and management. Framed in terms of expectancy theory, the concept of satisfaction suggests that:

... participants engage in recreation activities with the expectation that this will fulfill selected needs, motivations, or other desired states. The congruence between expectations and outcomes is seen to ultimately define satisfaction.

(Manning, 2011, pp. 12-13).

Using a five-point interval scale, respondents were asked to rate their satisfaction with seven duck management outcomes:

- The number of ducks you see during the season;
- The number of ducks you harvest during the season;
- The number of days in the duck season;
- The number of ducks in the daily limit;
- The number of ducks typically present during the hunting season;
- Quality of habitat where you hunt; and
- Your overall duck hunting experience.

Only those respondents that indicated that they hunted ducks in Question 1 were directed to this question; waterfowl hunters that only hunted geese were not presented with this question.

3.1.16. Question 16: Respondent Thresholds of Waterfowl Hunting Harvest, Bag Limit Sizes, and Season Length.

**Q16a** What is the minimum number of ducks you have to harvest in a day to feel satisfied with the hunt?

Q16b What is the smallest daily bag limit you would accept before you would no longer hunt ducks?

**Q16c** What is the minimum number of days in a waterfowl hunting season you would accept before you would no longer hunt ducks?

In order to get a better sense of waterfowl hunters' satisfaction with the management of duck hunting, these three questions asked about respondents' thresholds for minimum harvest numbers, bag limit size, and season length. Only those respondents that indicated that they hunted ducks in Question 1 were directed to this question; waterfowl hunters that only hunted geese were not presented with this question.

#### 3.1.17. Discrete Choice Models for Preferred Trips

This question set is a discrete choice experiment (DCE) that examines the preferences of waterfowl hunters concerning different potential combinations of waterfowl hunting elements. Discrete choice experiments represent a rigorous, quantitative approach to determine the relative importance of multiple attributes or objectives on choice decision processes. The approach is founded on random utility theory, a robust theory of human choice behavior (Louviere, Hensher & Swait, 2000; Louviere, Flynn & Carson, 2010; Thurstone, 1927; McFadden & Train, 2000). In discrete choice experiments, survey respondents are presented a range of hypothetical choice sets. Each choice set includes a different combination of levels associated with each attribute of a product or plan. For example, choice sets might include different combinations of the attributes: waterfowl population sizes, amounts of habitat, and participation levels. Through this exercise, we would be able to determine the relative importance (i.e., weights/utilities) that waterfowl hunters place on the individual attributes, the tradeoffs they are willing to make among attributes, and the total utility or value that will be achieved from different combinations of the attributes (Ryan, 1996; Wattage, Mardle & Pascoe, 2005). Choice models present hypothetical scenarios to respondents to derive individuals' preferences for alternatives composed of multiple resource and management attributes (Adamowicz, Louviere & Williams, 1994; Louviere, Hensher & Swait, 2000; Oh et al., 2005). The approach depends on the imperfect relationship between behavioral intention and behavior (Ajzen & Fishbein, 1980), yet allows estimation of the effects of all parameters of interest independently. Individuals are assumed to be utility maximizers, and respondents' choices reflect the perceived utility of the alternatives presented (McFadden, 1981). Individual respondent choices reflect the personal utility of attributes and attribute levels, and are aggregated to estimate the utility of attributes and attribute levels in a population (McFadden, 1981). In an economic sense, utility is simply a measure of the perceived usefulness of something to an individual. The degree to which someone chooses one circumstance over another provides the ability to measure its perceived usefulness, or utility, to that person. In general, the utility of an attribute level may be considered a reflection of relative desirability (Orme, 2014).

Alternatives presented in this discrete choice experiment consisted of five attributes:

- 1. Harvest: The number of waterfowl you are likely to harvest in a day.
- 2. Access Effort: How easy or difficult it is to get into, out of, and around an area in order to hunt.
- 3. Length of Travel: The time you have to travel one-way in order to hunt.
- 4. Quantity of Waterfowl: The number of ducks/geese that you see in a day when hunting even if not in shooting range.
- 5. Potential for Interference/Competition: Competition from other hunters who might interfere with your hunt in some way such as making you feel crowded or competing for hunting spots or birds.

Response levels varied between three and five levels for each attribute (Table 1). In order to have adequate statistical power to conduct this experiment, ten choice sets (each containing two scenarios) were developed. Respondents were presented with ten different paired hypothetical comparisons of waterfowl hunting experiences and asked to choose one option. Each scenario included two viewing option choices plus a "none" (*i.e.*, I would not go if these were my only choices).

**Table 1.** Possible trip choice characteristics in discrete choice experiment.

Attribute	Possible Levels
Harvest The number of waterfowl you are likely to harvest in a day.	<ul><li>1 bird;</li><li>3 birds; and</li><li>6 birds.</li></ul>
Access Effort How easy or difficult it is to get into, out of and around an area in order to hunt.	<ul> <li>Easy access that takes little effort;</li> <li>Moderate access that takes some effort; and</li> <li>Difficult access that takes a lot of effort.</li> </ul>
Length of Travel The time you have to travel one-way in order to hunt.	<ul><li>30 minutes;</li><li>1 hour;</li><li>2 hours;</li><li>3 hours; and</li><li>4 hours.</li></ul>
Quantity of Waterfowl The number of ducks/geese that you see in a day when hunting even if not in shooting range.	<ul> <li>25 birds or less;</li> <li>50 birds;</li> <li>250 birds;</li> <li>500 birds; and</li> <li>1,000 birds or more.</li> </ul>
Potential for Interference/Competition Competition from other hunters who might interfere with your hunt in some way such as making you feel crowded or competing for hunting spots or birds.	<ul> <li>No competition;</li> <li>Low competition from other hunters;</li> <li>Moderate competition from other hunters; and</li> <li>High competition from other hunters.</li> </ul>

The resultant hierarchical Bayes models include average utilities (or 'usefulness') for each attribute level, and summarize waterfowl hunters' attribute preferences, and the overall importance of the five attributes embodied in respondents' choices.

- 3.1.18. Question 18: Prioritization of Waterfowl Hunting Management Options.
  - **Q18a** How much priority should provincial / territorial and federal agencies give the following when setting annual duck hunting regulations?
  - Q18b Of all the options listed below, please rank your top three to indicate your highest priorities. Use the numbers 1, 2, and 3, with 1 being your highest priority, 2 being your second highest priority and 3 being your third highest priority.

For the first part of this question, respondents were asked to use a five-point interval scale (from *Very Low* to *Very High*) to prioritize seven waterfowl management options:

- Having the largest bag limits possible;
- Having the longest seasons possible;
- Having the largest duck populations possible;
- Avoiding different season lengths for different duck species;
- Providing the simplest regulations possible;
- Reducing the number of species-specific bag limits (i.e., bag limits that apply to specific species
  instead of the general duck bag limit); and
- Having the largest drake mallard bag limits possible.

The second part of this question asked respondents to only identify the top three waterfowl hunting management options from the seven identified above.

- 3.1.19. Questions 19 21: Attitudes About Species-Specific Bag Limits.
  - **Q19** For the provinces / territories where you hunt, are the rules and regulations for current species-specific bag limits difficult to understand?
  - **Q20** For the provinces / territories where you hunt, are the current species-specific bag limits difficult to comply with in the field?
  - **Q21** Please indicate your preferred scenario for bag limits of duck species that typically have smaller bag limits.

These three questions asked respondents about their attitudes and preferences about species-specific bag limits in different settings, including in the field. Question 19 asked about whether the rules and regulations for current species-specific bag limits were difficult to understand. Question 20 asked whether the current species-specific bag limits were difficult to comply with in the field. Question 21 asked respondents to indicate their preference for two bag limit scenarios:

Maximize harvest opportunity by maintaining individual species bag limits; or

- Create simpler regulations by creating aggregate bag limits for a combination of certain species (e.g., a diving duck limit).
- 3.1.20. Question 22: Recreation Specialization.

**Q22** We are interested in knowing how much waterfowl hunting means to you. Please indicate how much you disagree or agree with the following statements about your personal participation in waterfowl hunting.

Recreationists, even those that pursue the same activity like waterfowl hunters, are not homogeneous (Salz, Loomis & Finn, 2001; Rollins & Robinson, 2002; Fulton & Hundertmark, 2004). Recreationists differ in their values, the activities that they pursue, the settings that they prefer, the experiences they desire, and their motivation for participating (Choi, Loomis & Ditton, 1994). Traditional social aggregation variables neither completely explain recreation participation, nor the variation among preferences, attitudes, and behaviours (Bryan, 1977; McFarlane, Boxall & Watson, 1998). One way to contextualize waterfowl hunting participation is an examination of waterfowl hunters' identity and commitment to the activity. Identity is the process by which an individual distinguishes themselves from others, and refers to one's affiliation with a particular social group (Hoult, 1977; Stryker, 2000). Group membership often brings together people with similar attitudes and opinions; the emotional significance of association with likeminded individuals reinforces a person's social identity (Tajfel, 1982), and affects their concept of self. It has been argued that social identity serves a cognitive function that facilitates group behaviour (Turner, 1982). In this research identity is framed in terms of the recreation specialization framework (Bryan, 1977). The utility of the specialization framework lies in its ability to predict attitudes, preferences, and behaviour (McFarlane, 1994). As a recreationist's degree of specialization increases, so too does their degree of knowledge about various aspects of the activity that they pursue. The differences in knowledge among recreationists with differing levels of specialization may lead to differences in attitudes, preferences and behaviour (Scott & Shafer, 2001). Degrees of recreation specialization are related to attitudes about, and preferences for, management practices (Salz, Loomis & Finn, 2001; Manning, 1999; Bryan, 2000; Jackson, 1987); as specialization increases, recreation management preferences can shift from resource consumption to preferences for management strategies that focus on and resource conservation.

Personal connections to nature can influence how people acquire their knowledge about land-use management strategies and approaches. Knowing about what people's connections to nature are could yield information about the general relevancy of nature to respondents; this information may assist in the interpretation of general attitudes and perceptions for priorities for land-use management, and could address how "experienced" people are when addressing land-use issues and priorities. This set of questions measured the degree of a person's involvement in waterfowl hunting. Participation in waterfowl

hunting provides opportunities to experience nature and the environment first-hand; these experiences can shape people's attitudes and beliefs about the management of natural resources. Respondents were asked to indicate their level of agreement with twelve statements using a five-point interval scale (from *Strongly Disagree* to *Strongly Agree*). The recreation specialization items in these questions have been informed by Schroeder *et al.* (2013) and Needham *et al.* (2009).

# 3.1.21. Question 23: Waterfowl Hunting Mentoring.

**Q23a** During this past season did you take anyone waterfowl hunting who had never waterfowl hunted before?

Q23b If you did, who did you introduce?

Respondents were asked whether they had introduced someone to waterfowl hunting, and if they had, what the characteristics of that person were:

- My own child(ren);
- Related child(ren);
- Other Child(ren);
- Adult close family (e.g., brother/sister);
- Adult extended family (e.g., cousin/uncle);
- Adult friend;
- Co-worker; and
- Other.

## 3.1.22. Question 13: Identity

**Q13** A person can think of themselves in a variety of ways. Please indicate the extent to which you identify yourself as a/an...

This question asked about the strength of respondents' identification with birdwatching, hunting, and conservation. Respondents were asked to indicate how much they identify with five structural positions related to waterfowl/wetlands using a five-point interval scale (ranging from *Not at All* to *Very Strongly*).

### 3.1.23. Question 25: Social Networks (personal community).

Q25 We are interested in knowing about your "personal community" and whether you know people in certain kinds of occupations and people affiliated with certain types of organizations. Among your relatives, close friends, or acquaintances, are there people who participate in the following activities, have the following jobs or who belong to the following organizations? Also, would you classify yourself in any of the following areas [structural positions]?

The relationships that people have with other people can exert influences in a number of ways, including the flow and type of information available and their familiarity with different social identifies (i.e., a scientist, a logger, a politician). This question uses a position generator (Lin, 2001; Lin et al., 2001) to measure the characteristics (i.e., range of social ties, tie strength) of people's social networks. This question is based on a position generator developed by (Tindall & Harshaw, 2005) that has been revised to reflect positions/fields associated with waterfowl and wetlands. It is anticipated, for example, that people who have relationships to, or are, scientists or land-use managers will have different perceptions about the management of waterfowl and wetlands than people who have, for example, relationships to (or are) members of environmental organizations or people with a regular connection to the land (e.g., hunters, anglers). The position generator is a means of eliciting information about the characteristics of people's social networks. This approach asks people about their connections to nature through the relationships that they have with other people. The advantage of this approach is that it provides richer information about their connection to nature (i.e., what the connections are), as well as where they get their information from. Structural positions were chosen from the full range of position levels and classes and represent different economic sectors in order to capture a representative distribution of resources in the waterfowl/wetlands and birdwatching conservation communities. Care was taken to select structural positions that had enough variation of community members, and that the structural positions were clear and widely understood job titles/memberships (Verhaeghe et al., 2013).

#### 3.1.24. Question 26: Involvement in Organizations.

**Q26** Please indicate your level of involvement with the following organizations in the past 12 months, even if you were not a member.

This question asked about respondents' involvement in the types of organizations that are concerned with the conservation of waterfowl and wetlands. Involvement in these types of organizations can indicate respondents' connections to the waterfowl hunting community, and can also be sources of information. Respondents were asked to rate their involvement using a four-point interval scale (from *No Involvement* to *High Involvement*). The three types of organizations that were asked about were:

- Ducks Unlimited
- Delta Waterfowl
- Provincial / Territorial / Regional Waterfowl Association

# 3.1.25. Question 27: Trust in Organizations.

**Q27** How much do you trust the following organizations to keep your best interest in mind as a waterfowl hunter?

There are many different organizations/positions that are involved in the conservation of waterfowl and wetlands, and of the management of opportunities for waterfowl hunting. Respondents were asked to indicate the trustworthiness of each organization using a five-point interval scale (from *Do Not Trust at All* to *Trust Completely*). The seven organizations/positions conservation of waterfowl and wetlands, and of the management of opportunities for waterfowl hunting that respondents indicated trustworthiness for were:

- Provincial/Territorial wildlife agencies;
- the Canadian Wildlife Service;
- Elected officials:
- Waterfowl hunting/conservation organizations; and
- Birding/bird conservation organizations.
- · Other conservation organizations
- University researchers/scientists

#### 3.1.26. Question 28: Donations in the Previous 12-months.

**Q28** Please indicate how much money you personally donated to the following causes in the past 12 months.

Respondents were asked about any donations that they had made to four different causes in the 12-months preceding the survey. Seven categories representing different levels of donations (from \$0.00 to \$10,000.00 or more) were presented for each cause. The four causes were:

- Wetland and/or waterfowl conservation;
- Conservation of other bird species;
- Birdwatching and related issues; and
- Waterfowl hunting and hunting related issues.

3.1.27. Question 29: Willingness to Pay for Fees/Permits Purchased to Access Lands for Waterfowl Hunting.

Q29 Under the Migratory Birds Regulations, hunters must acquire both a Migratory Game Bird Hunting (MGBH) permit and a Canadian Wildlife Habitat Conservation (CWHC) stamp. Each cost \$8.50 for a combined total of \$17. Revenue from the stamp goes to Wildlife Habitat Canada to support habitat conservation. Revenue from the permit provides partial support for managing permits and monitoring waterfowl populations. The stamp and permit fees have not increased since 1991 and 1998 respectively.

Would you still be willing to buy a Migratory Game Bird Hunting permit and a Canadian Wildlife Habitat Conservation stamp if...

The Wildlife Habitat Conservation Stamp (i.e., the Canadian Duck Stamp) is a mechanism that directly provides funding for the conservation of wetlands, and for research and programs that support the conservation of wetlands. Respondents were asked to indicate their preference (using Yes/No options) for three hypothetical price changes to the Migratory Game Bird Hunting Permit and a Canadian Wildlife Habitat Conservation Stamp; an option of no fee increase was also included as a fourth option. The four options were:

- ... the Stamp fee increases by \$4 for new combined fee of \$21.
- ... the Stamp fee increases by \$4 and Permit fee increases by \$4 for new combined fee of \$25.
- ... the Stamp fee increases by \$9 and Permit fee increases by \$9 for new combined fee of \$35.
- ...the Stamp and Permit fees along with the combined fee remain the same (i.e., no fee increase).
- 3.1.28. Question 30: Payments for Wetlands Management on Private Lands.

**Q30** In the past 12 months did you personally spend money for wetlands management on private lands?

Respondents were asked whether they had spent any money on wetlands management on private lands; if they had, they were asked to indicate how much was spent.

3.1.29. Questions 31: Level of Involvement in Wetlands- and Waterfowl-Related Conservation Activities.

**Q31** Please indicate your level of involvement in the following wetlands or waterfowl conservation activities in the last 12 months.

This question asked about respondents' involvement in conservation activities that were related to wetlands and waterfowl. Question items were adapted from Larson *et al.*, (2015). Respondents were asked to indicate their involvement in each activity using a five-point interval scale (from *Never* to *Very Often*). Respondents were asked their involvement in six activities:

- Worked on land improvement projects related to wetlands or waterfowl conservation;
- Attended meetings about wetlands or waterfowl conservation;
- Volunteered my personal time and effort to conserve wetlands or waterfowl;
- Contacted elected officials or government agencies about wetlands or waterfowl conservation;
- Voted for candidates or ballot issues to support wetlands or waterfowl conservation; and
- Advocated for political action to conserve wetlands or waterfowl.
- 3.1.30. Question 32: Participation in Nature-Based Activities.

Q32 In the last 12 months, have you participated in the following nature-based activities?

This question asked about general participation in outdoor recreation activities, including close-to-home and away-from-home pursuits, consumptive and non-consumptive activities, and motorized and non-motorized activities. This question permits an assessment of the breadth of respondents' outdoor recreation activity.

3.1.31. Question 33: Participation in Activities Related to Wild Birds.

Q33 In the last 12 months, which of the following activities related to wild birds did you participate in, if any?

This question asked about general participation in activities that are related to birdwatching to provide a sense of respondents' engagement in birdwatching from low-engagement activities (*e.g.*, watching birds from my home) to high-engagement activities (*e.g.*, counting/monitoring birds for programs like the Christmas or Backyard Bird Counts).

- 3.1.32. Questions 34 & 35: Ecological Goods and Services of Wetlands.
  - Q34 Wetlands perform a variety of functions that are beneficial to people. When wetlands are lost or degraded, these benefits can be greatly reduced or disappear altogether. Below is a list of benefits that are threatened due to loss of wetlands. How concerned would you be if the following benefits were reduced in your community due to a loss of wetlands?
  - **Q35a** Which of the wetland benefits listed on the previous page would you be most concerned about being substantially reduced in your community?
  - Q35b Which of the wetland benefits listed on the previous page would you be least concerned about being substantially reduced in your community?

In Question 34, respondents were also asked about their level of concern about the loss of ten ecological goods and services provided by wetlands using a four-point interval scale (from *Not Concerned at All* to *Very Concerned*). Question 35a asked about the ecological good/service that respondents were most concerned about losing in their community; Question 35b asked respondents to identify the ecological good/service that they were least concerned about losing in their community. The ten ecosystem goods and services that respondents were asked about were:

- Flooding protection;
- Erosion protection;
- Wildlife viewing and birdwatching;
- Hunting opportunities;
- Storage of greenhouse gases, such as carbon;
- Clean water;
- Clean air;
- Providing a home for wildlife;
- Providing a home for animals such as butterflies and bees that pollinate plants and crops; and
- Scenic places for inspiration or spiritual renewal.

3.1.33. Questions 36 - 42: Demographic Characteristics.

Q36 In what year were you born?

Q37 Are you... Male [or] Female?

Q38 What is the highest level of education you have completed?

**Q39** Is a nature-related profession (such as farming, fisheries, forestry, environmental science, or conservation) the primary source of your PERSONAL income?

Q40a Do you own land in a rural area (outside of an urban or suburban area)?

**Q40b** Yes – If so, how many acres do you own in total?

Q41 Which of these categories best describes the place where you live now and where you lived during most of the time you were growing up (that is, until age 16)?

**Q42** Please indicate which of the following categories applies to your total personal income for last year?

This set of questions asked respondents to provide information about themselves. Socioeconomic characteristics, such as urban and rural residency (Manfredo *et al.*, 2003; Clendenning *et al.*, 2005), gender, age, length of residency in community (Koval & Mertig, 2004; White *et al.*, 2005), income and education (Manfredo et al., 2003) help to explain people's attitudes, beliefs and perceptions toward environmental issues and land-use management. Information about socioeconomic characteristics also permits for a segmentation of responses to other questions by particular socioeconomic characteristics.

#### 3.2. Sampling Design.

The target population included all Canadian waterfowl hunters 18 years of age and older. The sample frame was provided by Wildlife Habitat Canada; the sample frame was Canadians that had purchased a *Canadian Wildlife Habitat Conservation Stamp* (*i.e.*, a 'duck stamp') in 2016. The sample frame was stratified by Flyways based on postal codes; the postal codes were linked with geographic coordinates using the *Postal Code Conversion File* (Statistics Canada, 2017) and associated with the geographical coordinates of Flyway boundary delineations using GIS. All waterfowl hunters in Canada are required to purchase a *Canadian Wildlife Habitat Conservation Stamp* in addition to the necessary hunting permits. In order to preserve the privacy of *Canadian Wildlife Habitat Conservation Stamp* purchasers, Wildlife Habitat Canada was responsible for the mailing of survey materials from their office.

Large sample sizes are required to evaluate discrete choice experiment attributes, especially if the probability of a choice is low (p = 0.10). Choice experiments sample both individual study participants and the total number of choices that make up the study. Assuming that each respondent completes 10 choice sets, a sample of 432 is needed for enough power for a relatively rare choice of p = .10. Thus, the minimum sample size of n = 400 for each Flyway should provide enough statistical power to estimate a real choice probability of close to 10% of a market  $\pm 10\%$  at the 95% confidence interval (Louviere *et al.*, 2000). Assuming a response rate of lower than 25%, 2,000 waterfowl hunters were recruited in each of the four Flyways, for a total sample of 8,000 Canadian waterfowl hunters.

#### 3.3. Data Collection.

A web-based survey of Canadian waterfowl hunters was administered. Potential respondents were contacted through mail and provided instructions about how to access the web-based survey (Appendix C). Using a modified Tailored Design Method, up to four contacts were used; mail-based contacts were used as they are more effective in reaching desired respondents, and increase the likelihood of response (Dillman, 2009). An incentive was used to increase the response rate; potential participants were advised that all survey respondents would be entered into a draw for one of two *Wildlife Habitat Canada Limited Edition 2017 Canadian Wildlife Habitat Conservation Prints*. Non-response bias was examined through a mail survey of non-respondents on key demographic and waterfowl hunting-related recreation characteristic variables (Appendix B). All survey materials were reviewed by the *University of Alberta Research Ethics Board* (Appendix D). Non-response bias results are provided in Appendix E.

# 3.4. Analysis.

Descriptive statistics (frequency of response, mean, mode) were calculated for each question. Comparisons were made between the four Flyways using ANOVA for interval and ratio data; when the Levene's test indicated that the distribution of the Flyway data violated the assumption of homogeneity of variance, a Welch F-test was used. Effect size was calculated using Cramer's V ( $\varphi_c$ ) and Phi ( $\varphi$ ) for categorical data, and Cohen's *d* and Eta-squared ( $\eta^2$ ) for interval and ratio data (Table 2).

**Table 2.** Effect size indices and associated values for Small, Medium, and Large Effects (Cohen, 1988; Sawilowsky, 2009).

Statistical Test	Effect Size Index -		Effect Size	
Statistical rest	Effect Size index	Small	Medium	Large
Chi Square (χ²)	Phi (φ) Cramer's V (φ <sub>c</sub> )	0.1	0.3	0.5
T-test	Cohen's d	0.20	0.50	0.80
ANOVA	Eta squared (η²)	0.01	0.06	0.14

## 4. Results

Of the 2,000 potential participants that were contacted, 188 did not have valid mail addresses and could not be delivered; 6 potential participants indicated that they were not waterfowl hunters; and 6 declined to participate. A total of 345 responses were received between September 27<sup>th</sup> 2017 and March 30<sup>th</sup> 2018, which represents a response rate of 19.1% after correcting for undeliverable addresses and ineligible participants (*i.e.*, non-waterfowl hunters). Of the 345 questionnaires that were received 343 were completed in English and two were completed in French.

An analysis of non-response bias revealed significant differences between respondents to the main survey and those that replied to the non-response survey. However, with one exception, these significant differences were of small effect. Thus, no weights have been applied to the data based on non-response bias.

# 4.1. Question 1: Type of Waterfowl Hunted.

The majority of respondents (81.2%) hunted both ducks and geese (Table 3).

**Table 3.** Which of the following statements best describes your pursuits in waterfowl hunting? (n = 341; most frequently identified response is in **bold**.)

Response	Frequency	%
I hunt only ducks	31	9.1%
I hunt ducks and geese	277	81.2%
I hunt only geese	22	6.5%
I hunt neither ducks nor geese	11	3.2%

# 4.2. Question 2: Age When Waterfowl Hunting Started

Respondents reported being an average of 22.78 years old when they started waterfowl hunting (Table 4; Figure 1).

**Table 4.** (Q2) How old were you when you started waterfowl hunting?

Statistic	Value
n	341
Minimum	5
Maximum	89
Mode	16
Median	17
Mean	22.78
Standard Deviation	12.883

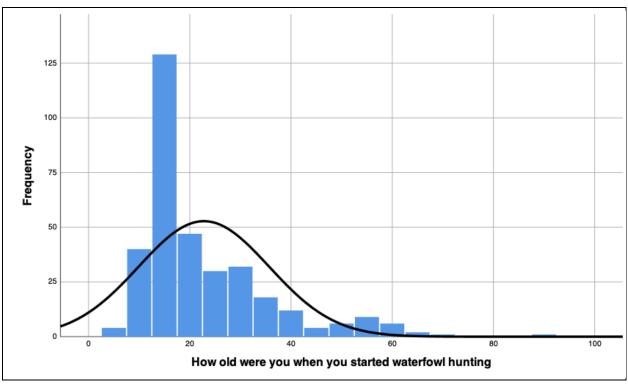


Figure 1. (Q2) Histogram: How old were you when you started waterfowl hunting?

# 4.3. Question 3: Waterfowl Hunting Participation Over Last Five Years.

More than half of respondents reported hunting 5 years over the last 5 years (Table 5).

**Table 5.** (Q3) How many years of the last 5 years have you hunted waterfowl? (n = 329; most frequently identified response is in **bold**.)

Response	Frequency	%
None	5	1.5%
1 Year	18	5.5%
2 Years	31	9.4%
3 Years	4	13.4%
4 Years	34	10.3%
5 Years	197	59.9%

## 4.4. Question 4D: Average Number of Ducks Harvested Per Year Over Last Five Years.

Two in five respondents reported harvesting an average of five or fewer ducks a year over the last five years (Table 6).

**Table 6** (Q4D) Over the last five years, how many ducks did you harvest in a year on average? (n = 303; most frequently identified response is in **bold**.)

Response	Frequency	%
5 or less	123	40.6%
Between 6 and 10	63	20.8%
Between 11 and 20	72	23.8%
Between 21 and 50	31	10.2%
More than 50	14	4.6%

4.5. Question 4G: Average Number of Ducks Harvested Per Year Over Last Five Years.

More than two in five respondents reported harvesting an average of five or fewer geese a year over the last five years (Table 7).

**Table 7.** (Q4G) Over the last five years, how many geese did you harvest in a year on average? (n = 287; most frequently identified response is in **bold**.)

Response	Frequency	%
5 or less	133	46.3%
Between 6 and 10	64	22.3%
Between 11 and 20	41	14.3%
Between 21 and 50	36	12.5%
More than 50	13	4.5%

4.6. Question 5: Number of Days Typically Spent Hunting Waterfowl per Year Over Last Five Years.

More than two in five respondents reported hunting waterfowl an average of five or fewer days over the last five years (Table 8).

**Table 8.** (Q5) Over the last five years, about how many days did you usually hunt waterfowl in a year? (n = 321; most frequently identified response is in **bold**.)

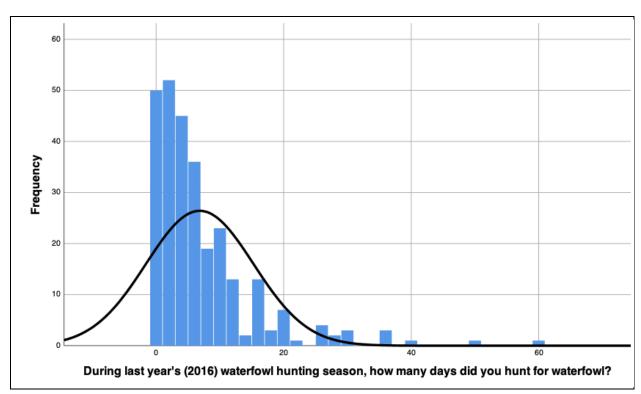
Response	Frequency	%
5 days or less	139	43.3%
6 to 10 days	93	29.0%
11 to 20 days	59	18.4%
21 to 30 days	19	5.9%
More than 30 days	11	3.4%

# 4.7. Question 6: Number of Days Spent Waterfowl hunting in 2016.

Respondents reported spending an average of 6.83 days hunting waterfowl in 2016 (Table 9; Figure 2).

**Table 9.** (Q6) During last year's (2016) waterfowl hunting season, how many days did you hunt for waterfowl?

Statistic	Value
n	279
Minimum	0
Maximum	60
Mode	0
Median	4
Mean	6.83
Standard Deviation	8.426



**Figure 2.** During last year's (2016) waterfowl hunting season, how many days did you hunt for waterfowl?

# 4.8. Question 7: Number of Times Required to Shoot a Daily Bag Limit of Ducks/Geese to have a Satisfying Season.

Almost two-thirds of respondents reported that they never felt the need to shoot a daily bag limit of ducks/geese to have a satisfying season (Table 10).

**Table 10.** (Q7) How many times do you feel you need to shoot a daily bag limit of ducks/geese to have a satisfying season? (n = 322; most frequently identified response is in **bold**.)

Response	Frequency	%
Never	211	65.5%
On at least one of my hunts	48	14.9%
Occasionally on my hunts	46	14.3%
Most of my hunts	15	4.7%
Every time I hunted	2	0.6%

## 4.9. Question 8: Number of Times the Limit of Ducks/Geese was Shot in 2016.

More than three in five respondents reported that they never shot a limit of ducks/geese during last year's season (Table 11).

**Table 11.** (Q8) How many times did you shoot a limit of ducks/geese during last year's season (2016)? (n = 321; most frequently identified response is in **bold**.)

Response	Frequency	%
Never	196	61.1%
On at least one of my hunts	65	20.2%
Occasionally on my hunts	36	11.2%
Most of my hunts	9	2.8%
Every time I hunted	0	0.0%
I did not hunt in 2016	15	4.7%

# 4.10. Question 9: Circumstances of a Typical Hunt.

Two-thirds of respondents reported that they typically go hunting when they plan the hunt and when someone else invites them (Table 12).

**Table 12.** (Q9) Under what circumstances do you typically go hunting? (n = 323; most frequently identified response is in **bold**.)

Response	Frequency	%
When I plan the hunt myself	67	20.7%
When someone else invites me	40	12.4%
Both when I plan the hunt or someone else invites me	216	66.9%

# 4.11. Question 10a: Flyway Hunted in Most Often.

Most respondents reported that they hunted most often in the Mississippi Flyway last year or in the year that they last hunted (Table 13).

**Table 13.** (Q10a) In which Flyway did you hunt most often last year (2016) or in the year you last hunted? (n = 323; most frequently identified response is in **bold**.)

Response	Frequency	%
Pacific Flyway	12	3.7%
Central Flyway	19	5.9%
Mississippi Flyway	283	87.6%
Atlantic Flyway	9	2.8%

# 4.12. Question 10b: Province / Territory / State Hunted in Most Often.

Four of five respondents reported the Canadian Province/Territory or US State they hunted waterfowl in most often over the past five years was Ontario (Table 14).

**Table 14.** (Q10b) In which Canadian Province/ Territory or US State have you hunted waterfowl most often over the past 5 years? (n = 323; most frequently identified response is in **bold**.)

Response	Frequency	%
Alberta	11	3.4%
British Columbia	11	3.4%
Manitoba	36	11.1%
New Brunswick	0	0.0%
Newfoundland	0	0.0%
Nova Scotia	0	0.0%
Northwest Territories	1	0.3%
Nunavut	1	0.3%
Ontario	259	80.2%
Prince Edward Island	0	0.0%
Québec	0	0.0%
Saskatchewan	3	0.9%
Yukon	0	0.0%
USA: North Dakota	0	0.0%

# 4.13. Question 11: Waterfowl Hunting Trip Duration.

Most respondents reported that they primarily took day trips when they hunt waterfowl (Table 15).

**Table 15.** (Q11) Do you primarily take day trips or overnight/multi-day trips when you waterfowl hunt? (n = 323; most frequently identified response is in **bold**.)

Response	Frequency	%
Primarily day trips	266	82.4%
Primarily overnight or multi-day trips	34	10.5%
Both about equally	23	7.1%

#### 4.14. Question 12: Jurisdiction of Where Most Waterfowl Hunting is Done.

The most frequently identified places where respondents hunted waterfowl was public lands or waters (Table 16).

**Table 16.** (Q12) Please indicate where you do most of your waterfowl hunting. (n = 323; most frequently identified response is in **bold**.)

Response	Frequency	%
Public lands or waters.	147	45.5%
Private property owned by you, your family or in partnership with someone else.	57	17.6%
Private property owned by a friend or another landowner who give you permission to hunt for free.	108	33.4%
Private property you lease or pay to hunt on.	8	2.5%
Guest on private property someone else leases or pay to hunt on.	3	0.9%

#### 4.15. Question 13: Importance of Hunting Different Kinds of Waterfowl.

Almost two in five respondents (39.4%) indicated that hunting diving ducks was not at all important (Table 17). More than one-quarter of respondents (27.3%) reported that hunting mallards was extremely important. Almost one-quarter respondents (23.6%) indicated that hunting other dabbling ducks was not at all important. More than half of respondents (56.3%) indicated that it was very or extremely important to hunt geese.

#### 4.16. Question 14: Potential Waterfowl Hunting Issues.

More than two in five respondents (45.6%%) indicated that crowding at hunting areas was not a problem at all in the province / territory where they hunt waterfowl most (Table18). A similar percentage of respondents (45.3%) indicated that hunting pressure was not a problem at all. Almost half of respondents (49.8%%) indicated that interference from other waterfowl hunters was not a problem at all. Almost two-thirds of respondents (64.9%) indicated that conflict with other waterfowl hunters in places that they hunted was not a problem at all. One-third of respondents (33.6%) indicated that lack of public places for waterfowl hunting was not a problem at all.

# 4.17. Question 15: Satisfaction With the Management of Duck Hunting.

More than two in five respondents (41.2%) were satisfied with the number of ducks that they saw during the season (Table 19). More than one-third of respondents (37.2%) were neither satisfied nor dissatisfied with the number of ducks that they had harvested during the season. Almost three in five respondents (58.5%) were satisfied with the number of days in the duck season. More than two-thirds of respondents (67.4%) were satisfied with the number of ducks in the daily limit. One-third of respondents (33.9%) were satisfied with the number of ducks typically present during the hunting season. Almost three in five respondents (59.2%) were satisfied with the quality of habitat where they hunted. Two-thirds of respondents (67.0%) were satisfied with their overall duck hunting experience.

Table 17. (Q13) How important is it to you to hunt the following in the Mississippi Flyway? (Most frequently identified response is in bold.)

How important is it to you to hunt	Ľ	Not at all Important (1)	Slightly Important (2)	Moderately Important (3)	Very Important (4)	Extremely Important (5)	Mean	SD
Diving ducks	269	39.4%	18.2%	21.6%	14.1%	6.7%	2.30	1.300
Mallards	278	10.4%	9.4%	21.2%	31.7%	27.3%	3.56	1.270
Other dabbling ducks	271	23.6%	15.9%	26.2%	24.4%	10.0%	2.81	1.310
Geese	279	10.0%	12.5%	21.1%	30.1%	26.2%	3.50	1.278

**Table 18.** (Q14) Please indicate how much of a problem the following are in the province / territory where you hunt waterfowl most often. (Most frequently identified response is in **bold**.)

ltem	c	Not at all a Problem (1)	Slight Problem (2)	Moderate Problem (3)	Severe Problem (4)	Very Severe Problem (5)	Mean	SD
Crowding at hunting areas	320	45.6%	21.6%	21.3%	8.4%	3.1%	2.02	1.136
Hunting pressure	320	45.3%	22.2%	20.3%	10.3%	1.9%	2.01	1.114
Interference from other waterfowl hunters	319	49.8%	26.6%	13.2%	7.5%	2.8%	1.87	1.082
Conflict with other waterfowl hunters in places I hunt	319	64.9%	18.5%	11.9%	4.1%	%9.0	1.57	0.898
Lack of public places for waterfowl hunting.	321	33.6%	13.1%	22.1%	14.0%	17.1%	2.68	1.485

**Table 19.** (Q15) In the province / territory where you hunt ducks most often, how dissatisfied or satisfied are you with... (Most frequently identified response is in **bold**.)

Satisfaction with	u	Very Dissatisfied (1)	Somewhat Dissatisfied (2)	Neutral (3)	Somewhat Satisfied (4)	Very Satisfied (5)	Mean	SD
The number of ducks you see during the season.	301	%9'6	22.6%	%9'92	25.9%	15.3%	3.15	1.210
The number of ducks you harvest during the season.	301	8.0%	23.6%	37.2%	17.6%	13.6%	3.05	1.130
The number of days in the duck season.	301	3.7%	%9'8	29.5%	21.3%	37.2%	3.80	1.141
The number of ducks in the daily limit.	297	1.7%	3.7%	27.3%	25.6%	41.8%	4.02	966.0
The number of ducks typically present during the hunting season.	301	%0'.	26.9%	24.3%	18.2%	13.6%	3.15	1.166
Quality of habitat where you hunt.	301	2.3%	14.6%	23.9%	32.6%	26.6%	3.66	1.091
Your overall duck hunting experience.	300	2.7%	9.3%	21.0%	40.3%	26.7%	3.79	1.024

#### 4.18. Question 16a: Minimum Number of Ducks Harvested per Day for a Satisfying Hunt.

Almost two-thirds respondents (64.6%) reported that two or fewer ducks was the minimum number of ducks that they had to harvest in a day to feel satisfied with the hunt (Table 20).

**Table 20.** (Q16a) What is the minimum number of ducks you have to harvest in a day to feel satisfied with the hunt? (n = 297; most frequently identified response is in **bold**.)

Number of ducks	Frequency	%
0	58	19.5%
1	60	20.2%
2	74	24.9%
3	44	14.8%
4	24	8.1%
5	23	7.7%
6	12	4.0%
7	0	0.0%
More than 7	2	0.7%

#### 4.19. Question 16b: Smallest Acceptable Bag Limit.

More than one-quarter of respondents (27.8%) indicated that they would hunt with a daily bag limit of any size (Table 21).

**Table 21.** (Q16b) What is the smallest daily bag limit you would accept before you would no longer hunt ducks? (n = 299; most frequently identified response is in **bold**.)

Daily Bag Limit Size	Frequency	%
6 ducks	40	13.4%
5 ducks	36	12.0%
4 ducks	45	15.1%
3 ducks	38	12.7%
2 ducks	41	13.7%
1 duck	16	5.4%
I'll hunt with any size daily bag limit	83	27.8%

4.20. Question 16c: *Minimum Acceptable Number of Days in a Waterfowl Hunting Season*. More than one-third of respondents (34.6%) indicated that they would hunt with any season length (Table 22).

**Table 22.** (Q16c) What is the minimum number of days in a waterfowl hunting season you would accept before you would no longer hunt ducks? (n = 298; most frequently identified response is in **bold**.)

Number of Days	Frequency	%
60 days	82	27.5%
55 days	2	0.7%
50 days	15	5.0%
45 days	16	5.4%
40 days	10	3.4%
35 days	4	1.3%
30 days	41	13.8%
25 days	5	1.7%
20 days	5	1.7%
15 days	7	2.3%
10 days	8	2.7%
I'll hunt with any season length	103	34.6%

#### 4.21. Discrete Choice Models for Preferred Trips.

Results for the hierarchical Bayes model, including average utilities, or usefulness, for each attribute level, summarize waterfowl hunters' preferences for attributes associated with waterfowl hunting experiences. The attribute importances (Table 23) provide a summary of how important each of the five attributes were in respondents' choices. The utilities of each level for each attribute are summarized in Table 24. The most important attributes in the choice of waterfowl hunting trips were:

- · Length of travel;
- Interference/competition from other hunters; and
- Harvest.

The levels with the highest utility included:

- Travel time of 30 minutes;
- Travel time of 1 hour;
- Harvest 6 birds;
- Low competition from other hunters; and
- No interference/competition from other hunters.

**Table 23.** Relative attribute importance derived from hierarchical Bayes estimation (n = 319).

Trip Choice Attribute	Average Importances	SD
Harvest	22.43	10.609
Access Effort	12.61	7.324
Length of Travel	27.17	12.638
Quantity of Waterfowl	11.37	6.090
Potential for Interference/Competition	26.41	12.077

**Table 24.** Hierarchical Bayes model average utilities for waterfowl hunting trip attribute levels (n = 319).

Trip Choice Attribute Level	Average Utilities	SD
Harvest		
One bird	-60.15	36.141
3 birds	16.41	14.310
6 birds	43.74	30.950
Access Effort		
Easy access that takes little effort	19.09	19.624
Moderate access that takes some effort	13.73	14.378
Difficult access that takes a lot of effort	-32.82	29.129
Length of Travel		
30 minutes	50.82	40.088
1 hour	44.76	35.184
2 hours	4.04	19.364
3 hours	-31.75	28.695
4 hours	-67.87	44.758
Quantity of Waterfowl		
25 birds or less	-20.88	19.731
50 birds	-13.72	14.694
250 birds	4.31	10.593
500 birds	9.16	15.205
1,000 birds or more	21.13	23.440
Potential for Interference/Competition from Other Hunters		
No competition	38.23	31.221
Low competition from other hunters	38.51	19.238
Moderate competition from other hunters	5.47	14.273
High competition from other hunters	-82.21	39.381
NONE: I would not go waterfowl hunting if these were my only choices.	-53.19	134.036

#### 4.22. Question 18a: Duck Hunting Regulation Priorities.

More than two in five respondents (45.9%) indicated that having the largest bag limits possible was a moderate priority (Table 25). Almost two in five respondents (39.5%) indicated that having the longest seasons possible was a moderate priority. Two in five respondents (40.2%) indicated that having the largest duck populations possible was a high priority. Three in ten respondents (30.9%) indicated that avoiding different season lengths for different duck species was a moderate priority; a similar percentage indicated that this was a very high priority. More than one-third of respondents (34.7%) indicated that providing the simplest regulations possible was a high priority. Moe than two in five respondents (42.3%) indicated that reducing the number of species-specific bag limits was a moderate priority. More than two in five respondents (45.9%) indicated that having the largest drake mallard bag limits possible was a moderate priority.

**Table 25.** (Q18a) How much priority should provincial / territorial and federal agencies give the following when setting annual duck hunting regulations? (Most frequently identified response is in **bold**.)

Item	n	Very Low (1)	Low (2)	Moderate (3)	High (4)	Very High (5)	Mean	SD
Having the largest bag limits possible.	314	8.3%	27.7%	45.9%	12.4%	5.7%	2.80	0.961
Having the longest seasons possible.	314	2.2%	13.4%	39.5%	31.8%	13.1%	3.40	0.952
Having the largest duck populations possible.	311	1.0%	3.5%	20.9%	40.2%	34.4%	4.04	0.885
Avoiding different season lengths for different duck species.	314	3.5%	11.5%	30.9%	28.7%	25.5%	3.61	1.091
Providing the simplest regulations possible.	314	1.9%	3.2%	26.8%	34.7%	33.4%	3.95	0.949
Reducing the number of species-specific bag limits.	314	8.0%	18.3%	42.3%	20.5%	10.9%	3.08	1.068
Having the largest drake mallard bag limits possible.	314	9.6%	25.2%	45.9%	11.8%	7.6%	2.83	1.015

#### 4.23. Question 18b: Ranking Duck Hunting Regulation Priorities.

More than two-thirds of respondents (69.3%; Table 26) indicated that having the largest duck populations possible was the first priority for the setting of duck hunting regulations. More than two in five respondents (45.5%) indicated that having the largest drake mallard bag limits possible was the second priority for the setting of duck hunting regulations. More than half of respondents (57.1%) reported that reducing the number of species-specific bag limits was the third priority for the setting of duck hunting regulations.

**Table 26.** (Q18b) Of all the options listed below, please rank your top three to indicate your highest priorities. (Most frequently identified response is in **bold**.)

Item	n	First Priority	Second Priority	Third Priority
Having the largest bag limits possible.	84	29.8%	26.2%	44.0%
Having the longest seasons possible.	182	31.3%	42.3%	26.4%
Having the largest duck populations possible.	225	69.3%	18.2%	12.4%
Avoiding different season lengths for different duck species.	118	13.6%	36.4%	50.0%
Providing the simplest regulations possible.	184	19.0%	40.8%	40.2%
Reducing the number of species-specific bag limits.	63	7.9%	34.9%	57.1%
Having the largest drake mallard bag limits possible.	33	15.2%	45.5%	39.4%

#### 4.24. Question 19: Comprehension of Species-Specific Bag Limits.

More than four of five respondents (81.4%) indicated that the current rules for species-specific bag limits were not difficult understand (Table 27).

**Table 27.** (Q19) For the provinces / territories where you hunt, are rules for current species-specific bag limits difficult to understand? (n = 307; most frequently identified response is in **bold**.)

Response	Frequency	%
Yes	57	18.6%
No	250	81.4%

#### 4.25. Question 20: Field Compliance of Species-Specific Bag Limits.

More than seven of ten respondents (72.5%) reported that the current species-specific bag limits were not difficult to comply with in the field (Table 28).

**Table 28.** (Q20) For the provinces / territories where you hunt, are the current species-specific bag limits difficult to comply with in the field? (n = 306; most frequently identified response is in **bold**.)

Response	Frequency	%
Yes	84	27.5%
No	222	72.5%

## 4.26. Question 21: Preferred Scenarios for Bag Limits of Duck Species that Typically Have Smaller Bag Limits.

A majority of respondents expressed a preference for creating simpler regulations by creating aggregate bag limits for a combination of certain species (Table 29).

**Table 29.** (Q21) Please indicate your preferred scenario for bag limits of duck species that typically have smaller bag limits. (n = 303; most frequently identified response is in **bold**.)

Scenario	Frequency	%
Maximize harvest opportunity by maintaining individual species bag limits.	117	38.6%
Create simpler regulations by creating aggregate bag limits for a combination of certain species.	186	61.4%

4.27. Question 22: Degree of Specialization (Commitment/Experience) with Waterfowl Hunting. Two in five respondents (40.8%) disagreed that if they couldn't go waterfowl hunting they were not sure what they would do instead (Table 30). More than two in five respondents (45.4%) disagreed that a lot of their life was organized around waterfowl hunting. More than one-third of respondents (38.7%) disagreed that waterfowl hunting had a central role in their life. More than nine in ten respondents (91.6%) agreed that getting to enjoy the natural environment through waterfowl hunting was important. A similar percentage of respondents (93.8%) agreed that being in nature was an important part of waterfowl hunting. More than half of respondents (59.7%) disagreed that getting their limit was important to them. Three-guarters of respondents (75.7%) agreed that developing their skills and abilities in waterfowl hunting was important to them. Almost three in five respondents (59.4%) agreed that challenging their waterfowl hunting skills was important. More than one-third of respondents (37.5%) disagreed that most of their friends were in some way connected with waterfowl hunting. Almost nine in ten respondents (89.3%) agreed that the sights and sounds of nature were important to waterfowl hunting. More than twothirds of respondents (69.5%) agreed that waterfowl hunting was one of the most enjoyable activities that they did. More than one-third of respondents (34.4%) agreed that using new techniques, technology and equipment to improve their waterfowl hunting was important to them.

**Table 30.** (Q22) We are interested in how much waterfowl hunting means to you. Please indicate how much you disagree or agree with the following statements about your personal participation in waterfowl hunting. (Most frequently identified response is in **bold**.)

		)			-	•		
Statement	и	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean	SD
If I couldn't go waterfowl hunting I am not sure what I would do instead.	307	14.7%	26.1%	31.3%	17.3%	10.7%	2.83	1.194
A lot of my life is organized around waterfowl hunting.	308	15.9%	29.5%	29.9%	14.9%	%2'6	2.73	1.184
Waterfowl hunting has a central role in my life.	305	12.8%	25.9%	28.5%	23.0%	%8'6	2.91	1.179
Getting to enjoy the natural environment through waterfowl hunting is important.	308	1.6%	1.3%	2.5%	42.9%	48.7%	4.36	0.784
Being in nature is an important part of waterfowl hunting.	308	1.0%	0.3%	4.9%	37.0%	26.8%	4.48	0.686
Getting my limit is important to me.	308	18.5%	41.2%	30.8%	7.5%	1.9%	2.33	0.928
Developing my skills and abilities in waterfowl hunting is important to me.	308	2.3%	3.9%	18.2%	51.3%	24.4%	3.92	0.884
Challenging my waterfowl hunting skills is important.	308	2.6%	%8.9	31.2%	42.2%	17.2%	3.65	0.932
Most of my friends are in some way connected with waterfowl hunting.	307	%8.6	27.7%	27.0%	28.7%	%8.9	2.95	1.109
The sights and sounds of nature are important to waterfowl hunting.	308	1.0%	1.0%	8.8%	44.5%	44.8%	4.31	0.753
Waterfowl hunting is one of the most enjoyable activities I do.	308	2.3%	7.1%	21.1%	38.3%	31.2%	3.89	1.002
Using new techniques, technology and equipment to improve my waterfowl hunting is important to me.	308	5.2%	19.8%	40.6%	22.4%	12.0%	3.16	1.043

#### 4.28. Question 23a: Taking Others Waterfowl Hunting.

Almost two-thirds of respondents reported that they did not take anyone waterfowl hunting who had never waterfowl hunted before (Table 31).

**Table 31.** (Q23a) During this past season did you take anyone waterfowl hunting who had never waterfowl hunted before? (n = 308; most frequently identified response is in **bold**.)

Response	Frequency	%
Yes	109	35.4%
No	199	64.6%

4.29. Question 23b: Who was Introduced to Waterfowl Hunting that had not Hunted Waterfowl Before. Of those respondents that did take someone waterfowl hunting who had never waterfowl hunted before, more than half introduced an adult friend to waterfowl hunting (Table 32).

**Table 32.** (Q23b) If you did [take anyone waterfowl hunting who had never waterfowl hunted before], who did you introduce? (n = 108; most frequently identified response is in **bold**.)

Response	Frequency	%
My own children	32	29.6%
Related children	15	13.9%
Other children	22	20.4%
Adult close family	14	13.0%
Adult extended family	9	8.3%
Adult friend	59	54.6%
Co-worker	17	15.7%
Other	9	8.3%

#### 4.30. Question 24: identity.

More than four in five of respondents (83.3%) identified as birdwatcher to some degree (Table 33). Almost all respondents (97.7%) identified as a duck hunter to some degree. More than nineteen in twenty respondents (96.3%) had some degree of identification as a goose hunter. More than nine in ten respondents (96.7%) identified as another type of hunter. More than nineteen in twenty respondents (98.3%) had some degree of identification as a conservationist.

Table 33. (Q24) A person can think of themselves in a variety of ways. Please indicate the extent to which you identify yourself as

a/an (Most frequently identified response is in <b>bold</b> .)	/ identifie	d response is	in <b>bold</b> .)				. (	
Identity	٦	Not at All (1)	Slightly (2)	Moderately (3)	Strongly (4)	Very Strongly (5)	Mean	SD
Birdwatcher	294	16.7%	29.9%	30.6%	14.6%	8.2%	2.68	1.157
Duck Hunter	305	2.3%	14.2%	35.4%	29.5%	18.5%	3.48	1.024
Goose Hunter	300	3.7%	18.7%	35.3%	24.3%	18.0%	3.34	1.088
Other type of hunter	300	3.3%	7.3%	24.0%	36.3%	29.0%	3.80	1.043
Conservationist	300	1.7%	4.7%	21.3%	38.3%	34.0%	3.98	0.945

#### 4.31. Question 25: Social Networks.

Respondents indicated that they had acquaintances, close friends, and relatives in each of the structural positions that were presented to them; and all of the structural positions resonated with at least some of the respondents as structural positions that they would use to classify themselves (Table 34). The top five structural positions that respondents indicated they had acquaintances in were other type of hunter (*e.g.*, small/big game), waterfowl hunter, angler, farmer/rancher, and member of Ducks Unlimited. The top five structural positions that respondents indicated that they had close friends in were other type of hunter (*e.g.*, small/big game), waterfowl hunter, angler, farmer/rancher, and member of Ducks Unlimited. The top five structural positions that respondents indicated that they had relatives in were other type of hunter (*e.g.*, small/big game), angler, waterfowl hunter, birdwatcher, and farmer/rancher. The top five structural positions that respondents indicated that they would classify themselves as being a part of were other type of hunter (*e.g.*, small/big game), waterfowl hunter, angler, birdwatcher, and member of a hunting/conservation organizations not focused on waterfowl (*e.g.*, National Wild Turkey Federation, Rocky Mountain Elk Foundation).

**Table 34.** (Q25) We are interested in knowing about your "personal community" and whether you know people in certain kinds of occupations and people affiliated with certain types of organizations. Among your relatives, close friends, or acquaintances, are there people who participate in the following activities, have the following jobs or who belong to the following organizations? Also, would you classify yourself in any of the following areas [structural positions]? (n = 303)

Structural Position	Acquaintance	Close Friend	Relative	Myself
Angler	48.5%	64.0%	60.1%	74.9%
Birdwatcher	30.0%	24.8%	31.0%	37.6%
Farmer/Rancher	45.9%	37.0%	26.7%	16.2%
National park manager/employee	20.5%	6.9%	3.0%	2.6%
Outdoor educator	26.7%	13.9%	5.0%	9.6%
Provincial/state park manager/employee	21.5%	10.6%	3.6%	3.6%
Waterfowl hunter	53.5%	71.0%	58.1%	78.2%
Other type of hunter (e.g., small/big game)	54.5%	72.6%	62.7%	79.9%
Provincial/state wildlife agency manager/employee	20.8%	9.9%	4.3%	3.3%
Canadian Wildlife Service manager/employee	15.5%	4.0%	1.3%	3.6%
Wildlife artist (amateur or professional)	20.5%	5.3%	6.6%	3.0%
Wildlife biologist	22.1%	12.9%	5.6%	4.6%
Wildlife photographer (amateur or professional)	23.8%	17.2%	13.2%	18.2%
Member of a fishing/conservation organizations (e.g., Trout Unlimited)	26.7%	29.4%	17.8%	26.7%
Member of birding and birdwatching groups (e.g., Bird Studies Canada)	14.9%	6.6%	5.0%	4.6%
Member of bird conservation groups ( <i>e.g.</i> , National Audubon Society (including local chapters), Cornell Lab, bird observatories)	12.5%	6.6%	3.0%	3.3%
Member of ornithological societies and groups (e.g., Western field ornithologist, National or regional ornithological societies)	9.9%	3.0%	0.7%	1.3%
Member of Ducks Unlimited	32.7%	37.0%	20.1%	27.4%
Member of Delta Waterfowl	17.8%	16.5%	7.3%	10.9%
Member of provincial/territorial or regional waterfowl association	10.9%	8.3%	2.6%	5.6%
Member of a hunting/conservation organizations not focused on waterfowl ( <i>e.g.</i> , National Wild Turkey Federation, Rocky Mountain Elk Foundation)	26.7%	29.0%	19.1%	33.7%
Member of other local/regional conservation organizations	18.5%	16.5%	10.6%	18.2%
Member of a local naturalist organizations	11.6%	6.6%	3.0%	4.3%
Member of other national/international conservation organizations ( <i>e.g.</i> , The Nature Conservancy, Sierra Club, World Wildlife Fund)	12.9%	5.6%	2.6%	5.3%

#### 4.32. Question 26: Organizational Involvement.

The majority of respondents indicated that they did not have any involvement with the waterfowl organizations that were asked about (Table 35).

**Table 35.** (Q26) Please indicate your level of involvement with the following organizations in the past 12 months, even if you were not a member. (Most frequently identified response is in **bold**.)

Organization	n	No Involvement (1)	Slight Involvement (2)	Moderate Involvement (3)	High Involvement (4)	Mean	SD
Ducks Unlimited	294	57.1%	30.6%	8.2%	4.1%	1.59	0.807
Delta Waterfowl	269	82.5%	11.9%	3.7%	1.9%	1.25	0.612
Provincial / Territorial / Regional Waterfowl Association	256	84.0%	10.2%	4.3%	1.6%	1.23	0.600

#### 4.33. Question 27: Trust of Organizations.

Almost nine in ten respondents (89.8%) indicated that they had some degree of trust in Provincial / Territorial wildlife agencies to keep their best interests in mind as a waterfowl hunter (Table 36). A similar percentage of respondents (90.9%) reported some degree of trust in Federal wildlife and land management agencies. More than half of respondents (51.4%) reported that they had some degree of trust in elected officials to keep their best interests in mind as a waterfowl hunter. More than nineteen in twenty respondents (96.9%) indicated that they had some degree of trust in waterfowl hunting/conservation organizations. More than four of five respondents (88.3%) indicated that they had some degree of trust in Birding/bird conservation organizations to keep their best interests in mind as a waterfowl hunter; a similar percentage of respondents (88.5%) indicated that they had some degree of trust in other conservation organizations. More than nine in ten respondents (92.5%) reported that they had some degree of trust in university/college researchers/scientists to keep their best interests in mind as a waterfowl hunter.

4.34. Question 28: Donations to Organizations Concerned with Wetland, Waterfowl, and Birds. More than two in five respondents (46.0%) reported making donations of less than \$250 to wetland and/or waterfowl conservation in the 12 months prior to completing the survey (Table 37). Almost four of five respondents (79.7%) did not make any donations to the conservation of other bird species. More than nine in ten respondents (91.2%) did not make any donations to birdwatching and related issues. More than two in five respondents (45.4%) did not make any donations to waterfowl hunting and hunting related issues.

**Table 36.** (Q27) How much do you trust the following organizations to keep your best interest in mind as a waterfowl hunter? (Most frequently identified response is in **bold**.)

Organization	u	Do not Trust at All (1)	Trust a Little (2)	Trust Somewhat (3)	Trust a Lot (4)	Trust Completely (5)	Mean	SD
Provincial / Territorial wildlife agencies	295	10.2%	19.3%	42.7%	23.1%	4.7%	2.93	1.009
Federal wildlife and land management agencies	296	9.1%	18.2%	41.9%	25.0%	2.7%	3.0	1.015
Elected officials	292	48.6%	28.1%	20.2%	2.7%	0.3%	1.78	0.885
Waterfowl hunting/conservation organizations	294	3.1%	%6.6	27.6%	49.3%	10.2%	3.54	0.915
Birding/bird conservation organizations	291	11.7%	19.6%	35.4%	27.8%	5.5%	2.96	1.079
Other conservation organizations	287	11.5%	21.3%	43.2%	20.6%	3.5%	2.83	966.0
University/college researchers/scientists	292	7.5%	18.2%	39.7%	29.1%	2.5%	3.07	0.996

**Table 37.** (Q28) Please indicate how much money you personally donated to the following causes in the past 12 months. (Most frequently identified response is in **bold**.)

Cause	۵	0\$	Less than \$250	\$250 – \$999	\$1,000 – \$2,499	\$2,500 – \$4,999	\$5,000 – \$9,999	\$10,000 or More
Wetland and/or waterfowl conservation	291	41.9%	46.0%	%9.6	1.4%	%0.0	%2'0	0.3%
Conservation of other bird species	566	79.7%	19.2%	0.4%	0.4%	0.4%	%0.0	%0.0
Birdwatching and related issues	262	91.2%	8.4%	0.4%	%0.0	%0.0	%0.0	%0.0
Waterfowl hunting and hunting related issues	282	45.4%	44.3%	8.9%	1.1%	%0.0	%0.0	0.4%

4.35. Question 29: Potential Changes to the Costs of Migratory Game Bird Hunting Permits and Canadian wildlife Habitat Conservation Stamps.

With the exception of the option to increase the Stamp fee by \$9 and Permit fee by \$9 for a new combined fee of \$35, a majority of respondents indicated that they would be willing to buy a Migratory Bird Hunting permit and a Canadian Wildlife Habitat Conservation Stamp under each of the scenarios that were presented to them (Table 38). The option preferred by more than nine in ten respondents was that the Stamp and Permit fees along with the combined fee remain the same (*i.e.*, no fee increase).

**Table 38.** (Q29) Would you be willing to buy a Migratory Bird Hunting permit and a Canadian Wildlife Habitat Conservation Stamp if... (Most frequently identified response is in **bold**.)

Statement	n	Frequency	%
the Stamp fee increases by \$4 for a new combined fee of \$21.	286	243	85.0%
the Stamp fee increases by \$4 and Permit fee increases by \$4 for new combined fee of \$25.	285	205	71.9%
the Stamp fee increases by \$9 and Permit fee increases by \$9 for a new combined fee of \$35.	286	124	43.4%
the Stamp and Permit fees along with the combined fee remain the same ( <i>i.e.</i> , no fee increase).	288	271	94.1%

4.36. Question 30: Money Spent for the Management of Wetlands on Private Lands.

More than four of five respondents did not spend any money for wetlands management on private lands (Table 39).

**Table 39.** (Q30) In the past 12 months did you personally spend money for wetlands management on private lands? (n = 298; most frequently identified response is in **bold**.)

Response	Frequency	%
No	244	81.9%
Yes I spent	19	6.4%
Yes, but I'd rather not say how much	35	11.7%

Respondents that did indicate how much money they spent for wetlands management on private lands reported spending an average of \$5,848.21 (Table 40; Figure 3).

**Table 40.** (Q30) In the last 12 months did you personally spend money for wetlands management on private lands?

Statistic	Value
n	14
Minimum	\$50.00
Maximum	\$70,000.00
Mode	\$200.00
Median	\$425.00
Mean	\$5,848.21
Standard Deviation	\$18,501.077

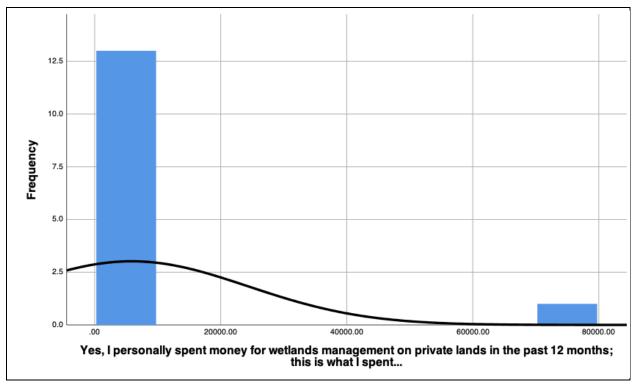


Figure 3. Personal spending for wetlands management on private lands in the past 12 months.

#### 4.37. Question 31: Involvement in Wetlands or Waterfowl Conservation Activities.

At least two-thirds of respondents reported that they had never been involved in any of the six wetlands or waterfowl conservation activities in the 12 months prior to completing the survey (Table 41).

**Table 41.** (Q31) Please indicate your level of involvement in the following wetlands or waterfowl conservation activities in the last 12 months. (Most frequently identified response is in **bold**.)

Wetland/Waterfowl Conservation Activity	u	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very Often (5)	Mean	SD
Worked on land improvement projects related to wetlands or waterfowl conservation.	297	%0'69	12.8%	10.4%	5.4%	2.4%	1.59	1.029
Attended meetings about wetlands or waterfowl conservation.	297	72.4%	14.1%	11.4%	1.3%	%2'0	1.44	0.799
Volunteered my personal time and effort to conserve wetlands or waterfowl.	296	%6.69	11.5%	12.8%	3.0%	2.7%	1.57	1.006
Contacted elected officials or government agencies about wetlands or waterfowl conservation.	296	81.1%	7.1%	%8.6	1.7%	0.3%	1.33	0.749
Voted for candidates or ballot issues to support wetlands or waterfowl conservation.	296	%6'89	9.1%	11.1%	8.8%	2.0%	1.66	1.106
Advocated for political action to conserve wetlands or waterfowl.	293	71.7%	%9.6	11.3%	4.8%	2.7%	1.57	1.043

#### 4.38. Question 32: Participation in Nature-Based Activities.

With the exceptions of hunting migratory birds other than waterfowl and other nature-based activities and other activities, a majority of respondents indicated that they had participated in the other activities that were presented to them (Table 42).

**Table 42.** (Q32) In the last 12 months, have you participated in the following nature-based activities? (Most frequently identified response is in **bold**.)

Activity	n	Frequency	%
Spending time in nature away from home.	299	290	97.0%
Viewing wildlife.	299	244	81.6%
Learning about nature.	297	161	54.2%
Backyard/at-home nature activities.	297	279	93.9%
Fishing.	298	267	89.6%
Hunting migratory birds other than waterfowl.	295	118	40.0%
Hunting other game birds.	297	247	83.2%
Hunting any other game animals.	298	262	87.9%
Other	151	41	27.2%

#### 4.39. Question 33: Participation in Wild Bird Related Activities.

A majority of respondents indicated that they had watched birds at their home, had fed birds at their home, and had watched birds away from their homes (Table 43). Fewer than half of respondents had photographed or filmed birds, counted or monitored birds, kept track of the birds that they had seen (on a list, online, or on paper), and had installed or maintained nest boxes for birds.

**Table 43.** (Q33) In the last 12 months, which of the following activities related to wild birds did you participate in, if any? (Most frequently identified response is in **bold**.)

Activity	n	Frequency	%
Watching birds at my home.	300	250	83.3%
Feeding birds at my home.	299	207	69.2%
Watching birds away from my home.	300	221	73.7%
Photographing or filming birds.	299	118	39.5%
Counting/monitoring birds.	296	45	15.2%
Keeping track of the birds you see on a list, online or on paper.	294	34	11.6%
Installing or maintaining nest boxes for birds.	298	120	40.3%

#### 4.40. Question 34: Concern About Ecosystem Goods & Services.

Most respondents indicated that they had some degree of concern about the reduction of the ten ecosystem goods and services in their communities due to the loss of wetlands that were presented to them (Table 44). More than nine in ten respondents (91.6%) expressed some degree of concern about the reduction of flooding protection in their community. Nineteen in twenty respondents (95.0%) expressed some degree of concern about the reduction of erosion protection in their community. More than four in five respondents (86.6%) expressed some degree of concern about the reduction of wildlife viewing and birdwatching in their communities. Almost all respondents (97.6%) expressed some degree of concern about the reduction of hunting opportunities in their communities due to the loss of wetlands. More than four in five respondents (88.2%) expressed some degree of concern about the reduction of the storage of greenhouse gases, such as carbon, in their community. Almost all respondents (97.7%) expressed some degree of concern about the reduction of clean water in their communities due to the loss of wetlands. More than nine in ten respondents (97.0%) expressed some degree of concern about the reduction of clean air in their community. Almost all respondents (98.0%) expressed some degree of concern about the reduction of the provision of homes for wildlife in their community; the same percentage of respondents expressed some degree of concern about the reduction of the provision of homes for animals such as butterflies and bees that pollinate plants and crops. More than four in five respondents (82.2%) expressed some degree of concern for the reduction of scenic places for inspiration or spiritual renewal in their community due to the loss of wetlands.

#

<b>Table 44.</b> (Q34) Wetlands perform a variety of functions which are beneficial to people. When wetlands are lost or degraded, these benefits can be greatly reduced or disappear altogether. Below is a list of benefits that are threatened due to loss of wetlands. How concerned would you be if the following benefits were reduced in your community due to the loss of wetlands? (Most frequently identified response is in <b>bold</b> .)	ctions whic is a list of nunity due	of functions which are beneficial to people. When wetlands are lost or degraded, these benefits can Below is a list of benefits that are threatened due to loss of wetlands. How concerned would you be r community due to the loss of wetlands? (Most frequently identified response is in <b>bold</b> .)	people. When reatened due t ands? (Most fre	wetlands are l o loss of wetla equently identif	ost or degrade nds. How conc ied response is	d, these ber erned would in <b>bold</b> .)	efits can d you be
		Not Concerned	Slightly	Somewhat	Very		
Benefit	c	at All (1)	Concerned (2)	Concerned (3)	Concerned (4)	Mean	SD
Flooding protection	299	8.4%	17.7%	33.1%	40.8%	3.06	0.959
Erosion protection	539	2.0%	15.7%	39.8%	39.5%	3.14	0.858
Wildlife viewing and birdwatching	298	13.4%	21.8%	32.6%	32.2%	2.84	1.026
Hunting opportunities	296	2.4%	7.1%	22.6%	%6'.29	3.56	0.729
Storage of greenhouse gases, such as carbon	297	11.8%	17.8%	38.7%	31.6%	3.90	0.980
Clean water	298	2.3%	4.0%	16.4%	77.2%	368	0.662
Clean air	298	3.0%	2.0%	17.4%	74.5%	3.63	0.718
Providing a home for wildlife	296	2.0%	3.7%	21.3%	73.0%	3.65	0.651
Providing a home for animals such as butterflies and bees that pollinate plants and crops	297	2.0%	7.7%	21.5%	<b>68.7%</b>	3.57	0.723
Scenic places for inspiration or spiritual renewal	297	17.8%	24.6%	30.3%	27.3%	2.67	1.062

#### 4.41. Question 35a: Reduction of Wetland Benefits of Most Concern.

The reduction of hunting opportunities in their community was the wetland benefit that was of most concern to respondents (Table 45).

**Table 45.** (Q35a) Which of the wetland benefits listed on the previous page would you be **most** concerned about being substantially reduced in your community? (n = 294; most frequently identified response is in **bold**.)

Ecosystem Good/Service	Frequency	%
Flooding Protection	28	9.5%
Erosion Protection	6	2.0%
Wildlife viewing and birdwatching	6	2.0%
Hunting opportunities	102	34.7%
Storage of greenhouse gases	1	0.3%
Clean water	52	17.7%
Clean air	8	2.7%
Providing a home for wildlife	86	29.3%
Providing a home for butterflies and bees (pollinators)	5	1.7%
Scenic places for inspiration and spiritual renewal	0	0.0%

#### 4.42. Question 35b: Reduction of Wetland Benefits of Least Concern.

The reduction of scenic places for inspiration and spiritual renewal in their community was the wetland benefit that was of least concern to respondents (Table 46).

**Table 46.** (Q35b) Which of the wetland benefits listed on the previous page would you be **least** concerned about being substantially reduced in your community? (n = 295; most frequently identified response is in **bold**.)

EGS: Least concerned about losing	Frequency	%
Flooding Protection	20	6.8%
Erosion Protection	30	10.2%
Wildlife viewing and birdwatching	46	15.6%
Hunting opportunities	19	6.4%
Storage of greenhouse gases	53	18.0%
Clean water	3	1.0%
Clean air	7	2.4%
Providing a home for wildlife	3	1.0%
Providing a home for butterflies and bees (pollinators)	8	2.7%
Scenic places for inspiration and spiritual renewal	106	35.95

### 4.43. Question 36: Respondent Age.

The mean age of respondents was 48.21 years (Table 47; Figure 4).

Table 47. (Q36) Respondent age (calculated from year born).

Statistic	Value
n	299
Minimum	18
Maximum	83
Mode	38
Median	50
Mean	48.21
Standard Deviation	15.887

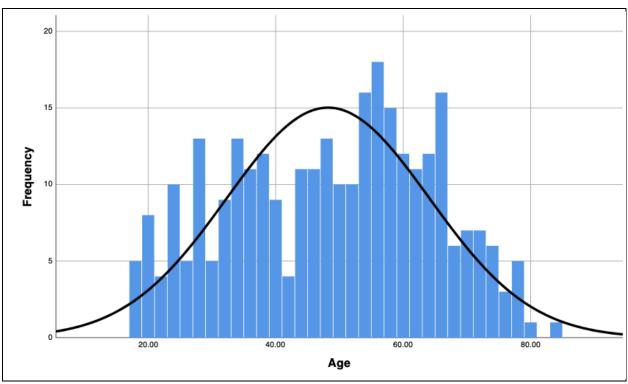


Figure 4. (Q36) Respondent age (calculated from year born).

#### 4.44. Question 37: Respondents' Gender.

Almost all respondents (96.7%) were male (Table 48).

**Table 48.** (Q37) Gender (n = 299; most frequently identified response is in **bold**.)

Response	Frequency	%
Male	289	96.7%
Female	10	3.3%

#### 4.45. Question 38: Respondents' Highest Level of Education.

More than half of respondents had earned a university/college degree or graduate degree (Table 49).

**Table 49.** (Q38) What is the highest level of education you have completed? (n = 299; most frequently identified response is in **bold**.)

Response	Frequency	%
Some high school	9	3.0%
High school	46	15.4%
Some university/college (no degree)	59	19.7%
University/college degree	138	46.2%
Graduate degree	38	12.7%
Other	9	3.0%

#### 4.46. Question 39: Employment in a Nature-related Profession.

One in five respondents reported that a nature-related profession was the primary source of their personal income (Table 50).

**Table 50.** (Q39) Is a nature-related profession (such as farming, fisheries, forestry, environmental science, or conservation) the primary source of your PERSONAL income? (n = 300; most frequently identified response is in **bold**.)

Response	Frequency	%
Yes	60	20.0%
No	240	80.0%

#### 4.47. Question 40a: Rural Land Ownership.

More than two in five respondents owned land in a rural area (Table 51).

**Table 51.** (Q40a) Do you own land in a rural area (outside of an urban or suburban area)? (n = 299; most frequently identified response is in **bold**.)

Response	Frequency	%
Yes	136	45.5%
No	163	54.5%

#### 4.48. Question 40b: Amount of Rural Land Owned.

Respondents that reported owning rural land owned an average of 119.44 acres (Table 52).

Table 52. (Q40b) Number of acres owned in a rural area.

Statistic	Value
n	125
Minimum	0.33
Maximum	1,000.00
Mode	2.00
Median	50
Mean	119.44
Standard Deviation	180.696

# 4.49. Question 41: Size of Community Respondents' Grew Up in and Where They Currently Reside. More than one-third of respondents currently reside in a rural area (Table 53); a similar percentage of respondents grew up in a rural area.

**Table 53.** (Q41) Which of these categories best describes the place where you live now and where you lived during most of the time you were growing up (that is, until age 16)? (Most frequently identified response is in **bold**.)

Community Category	n	Large urban area (population 500,000 or more)	Medium Urban area (population between 50,000 and 499,999)	Small city (population between 10,000 and 49,999)	Small town (population between 2,000 and 9,999)	Rural area (population less than 2,000)
Where you live now	300	19.3%	19.0%	12.3%	14.7%	34.7%
Where you grew up	295	17.6%	16.6%	15.3%	14.9%	35.6%

#### 4.50. Question 42: Respondents' Personal Income.

More than half of respondents (53.4%) indicated a personal income of \$74,999 or less (Table 54).

**Table 54.** (Q42) Please indicate which of the following categories applies to your total personal income for last year? (n = 286; most frequently identified response is in **bold**.)

Response	Frequency	%
< \$24,999	25	8.7%
\$25,000 to \$49,999	59	20.6%
\$50,000 to \$74,999	69	24.1%
\$75,000 to \$99,999	54	18.9%
\$100,000 to \$124,999	40	14.0%
\$125,000 to \$149,999	19	6.6%
\$150,000 to \$199,999	6	2.1%
\$200,000 to \$249,999	1	0.3%
\$250,000 to \$299,999	2	0.7%
\$300,000 or more	11	3.8%

#### **Literature Cited**

- Bryan, H. (1977). Leisure value systems and recreational specialization: The case of trout fishermen. *Journal of Leisure Research*, *9*(3), 174–187.
- Bryan, H. (2000). Recreation specialization revisited. *Journal of Leisure Research*, 32(1), 18-21.
- Choi, S., Loomis, D.K., and Ditton, R.B. (1994). Effect of social group, activity, and specialization on recreation substitution decisions. *Leisure Sciences*, 16, 143-159.
- Clendenning, G., Field, D., & Kapp, K. (2005). A comparison of seasonal homeowners and permanent residents on their attitudes toward wildlife management on public lands. *Human Dimensions of Wildlife*, 10(1), 3–17.
- Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences (2nd ed.). New York, NY: Psychology Press.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method* (3rd ed.). Hoboken NJ: John Wiley & Sons, Inc.
- Federal-Provincial-Territorial Task Force on the Importance of Nature to Canadians. (1999). The Importance of Nature to Canadians Survey Highlights. Ottawa, ON: Environment Canada.
- Federal, Provincial, and Territorial Governments of Canada. (2014). 2012 Canadian Nature Survey: Awareness, participation, and expenditures in nature-related recreation, conservation, and subsistence activities. Ottawa, ON: Canadian Councils of Resource Ministers.
- Fulton, D., and Hundertmark, K. (2004). Assessing the effects of a selective harvest system on moose hunters' behaviors, beliefs, and satisfaction. *Human Dimensions of Wildlife*, 9(1), 1–16.
- Harshaw, H., & Tindall, D. (2005). Social structure, identities, and values: A network approach to understanding people's relationships to forests. *Journal of Leisure Research*, *37*(4), 426–449.
- Heffelfinger, J.R., Giest, V, & Wishart, W. (2013). The role of hunting in North American wildlife conservation. *International Journal of Environmental Studies*, 70(3), 399-413.
- Hoult, T.F. (1977). Dictionary of Modern Sociology. Totowa, NJ: Littlefield, Adams, and Co.
- Jackson, E.L. (1987). Outdoor recreation participation and views on resource development and preservation. *Leisure Sciences*, 9(4), 235-250.
- Jackson, E.L. (2000). Will research on leisure constraints be relevant in the twenty-first century? *Journal of Leisure Research*, 32(1), 62-68.
- Koval, M., & Mertig, A. (2004). Attitudes of the Michigan public and wildlife agency personnel toward lethal wildlife management. *Wildlife Society Bulletin*, *32*(1), 232–243.
- Larson, L.R., Stedman, R.C., Cooper, C.B., & Decker, D.J. (2015). Understanding the multi-dimensional structure of pro-environmental behavior. *Journal of Environmental Psychology*, *43*, 112–124.
- Lin, N. (2001). Social Capital: A theory of social structure and action. New York: Cambridge University Press.
- Lin, N., Fu, Y. and Hsung, R. (2001). The position generator: Measurement techniques for investigations of social capital. In N. Lin, K. Cook & R. R. Burt (Eds.), *Social Capital: Theory and research* (pp. 57-81). New York: Aldine de Gruyter.
- Louviere, J.J., T.N. Flynn, and R.T. Carson. (2010). Discrete choice experiments are not conjoint analysis. *Journal of Choice Modelling* 3(3): 57-72.
- Louviere, J. J., D. A. Hensher, and J. Swait. (2000). *Stated Choice Methods: Analysis and application*. Cambridge: Cambridge University Press.
- Manfredo, M.J., Teel, T.L. and Bright, A.D. (2003). Why are public values toward wildlife changing? *Human Dimensions of Wildlife*, 8(4), 287-306.

- Manning, R. (2011). Studies in Outdoor Recreation: Search and research for satisfaction (3rd ed.). Corvallis OR: Oregon State University Press.
- McFadden, D., and K. Train. (2000). Mixed MNL models for discrete response. *Journal of Applied Econometrics*, 15 (15) 447-470.
- McFarlane, B.L. (1994). Specialization and motivations of birdwatchers. *Wildlife Society Bulletin*, 22, 361–370.
- McFarlane, B.L. (2001). Comments on recreational specialization: A critical look at the construct. *Journal of Leisure Research*, 33(3), 348-350.
- McFarlane, B.L., Boxall, P.C., and Watson, D.O. (1998). Past experience and behavioral choice among wilderness users. *Journal of Leisure Research*, 30(2), 195-213.
- Mcintyre, N., & Pigram, J. (1992). Recreation specialization reexamined: The case of vehicle-based campers. *Leisure Sciences*, *14*, 3–15.
- Needham, M., Sprouse, L., & Grimm, K. (2009). Testing a self-classification measure of recreation specialization among anglers. *Human Dimensions of Wildlife*, *14*(6), 448–455.
- North American Waterfowl Management Plan. (2012). *North American Waterfowl Management Plan 2012: People Conserving Waterfowl and Wetlands*. North American Waterfowl Management Plan, Plan Committee.
- Rollins, R. and Robinson, D.W. (2002). Social science, conservation, and protected areas. In P. Dearden & R. Rollins (Eds.), *Parks and Protected Areas in Canada: Planning and Management* (2 ed., pp. 117-147). Toronto: Oxford University Press.
- Ryan, M. (1996). Using Consumer Preferences in Health Care Decision Making: The application of conjoint analysis. Office of Health Economics, London, UK.
- Salz, R. J., Loomis, D. K., and Finn, K. L. (2001). Development and validation of a specialization index and testing of specialization theory. *Human Dimensions of Wildlife*, 6(4), 239-258.
- Sawilowsky, S (2009). New effect size rules of thumb. *Journal of Modern Applied Statistical Methods*. 8(2), 467–474.
- Schroeder, S.A., Fulton, D.C., Lawrence, J.S., & Cordts, S.D. (2013). Identity and specialization as a waterfowl hunter. *Leisure Sciences*, *35*(3), 218–234.
- Scott, D., & Shafer, C. (2001). Recreational specialization: A critical look at the construct. *Journal of Leisure Research*, *33*(3), 319–345.
- Statistics Canada. (2017). *Postal Code<sup>OM</sup> Conversion File (PCCF), 2017 (*Catalogue no. 92-154-X). Ottawa, ON, Statistics Canada.
- Stryker, S. (2000). Identity theory. In E. F. Borgatta & R. J. V. Montgomery (Eds.), *Encyclopedia of Sociology* (2nd ed., pp. 1253-1258). New York: Macmillan.
- Tajfel, H. (1982). Social psychology of intergroup relations. Annual Review of Psychology, 33, 1-39.
- Thurstone, L.L. (1927). A law of comparative judgment. Psychological Review, 34 273-286.
- Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social Identity and Intergroup Relation* (pp. 15-40). Cambridge: Cambridge University Press.
- Verhaeghe, P.-P., Van de Putte, B., & Roose, H. (2013). Reliability of position generator measures across different occupational lists a parallel test experiment. Field Methods, 25(3), 238–261.
- Walker, G.J., & Virden, R.J. (2005). Constraints to outdoor recreation. In E.L. Jackson (Ed.), *Constraints to Leisure* (pp. 201–219). State College, PA: Venture Publishing, Inc.
- Watson, D.O. and Boxall, P.C. (2005). *Trends in hunter participation in Alberta, 1990 to 2000: An analysis of the hunter licensing system databases* (Information Report NOR-X-404). Edmonton, AB: Natural Resources Canada Northern Forestry Centre.

- Wattage, P., S. Mardle, and S. Pascoe. (2005). Evaluation of the importance of fisheries management objectives using choice-experiments. *Ecological Economics*, 55(1), 85–95.
- White, B., Ord, P. and Hawkes, S. (2005, November 20-26). South Okanagan-Similkameen Conservation Program - Community-based Social Marketing Project – 2004. Paper presented at the Ecological Monitoring and Assessment Network (EMAN) National Science Meeting 2005 - Sustainability at the Landscape Scale: Supporting the process through multi-party stakeholder participation, Penticton BC.

# Appendix A Questionnaire



This project was undertaken with the financial support of: Ce projet a été réalisé avec le soutien financier de :













## **National Survey of Waterfowl Hunters**

To begin the survey in English, click on the button below.

**English** 

## Étude nationale sur les chasseurs de sauvagine

Pour commencer l'enquête en français, cliquez sur le bouton ci-dessous.

Français



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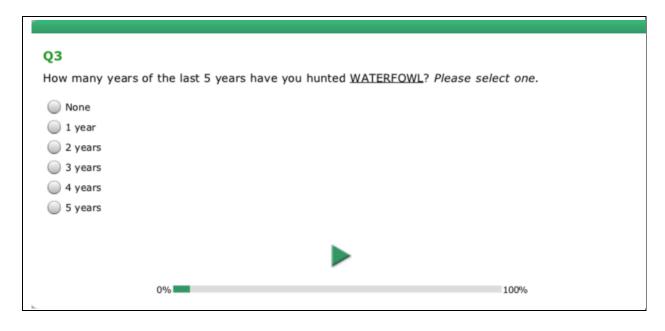
### **National Survey of Waterfowl Hunters**

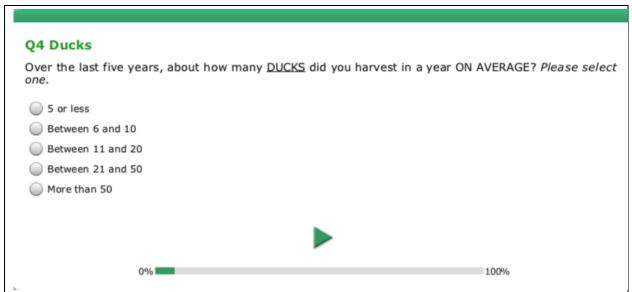
Thank you for participating in the national survey of waterfowl hunters. You are one of only a relatively few waterfowl hunters in your province/territory being contacted to participate in this study. The Canadian Wildlife Service is helping to sponsor this study because it is important to them to understand your waterfowl hunting experiences and what you think might improve them. We are working closely with your provincial/territorial waterfowl managers and the National Flyway Council to complete this study. The survey will take about 20 minutes to complete, and we greatly appreciate your time and effort. Your responses are very important to the study and will be used to help guide and improve waterfowl management in the future. Please be assured that your participation in the study, and all of your responses, will be kept confidential. You must be 18 or older to participate. Thank you for your help!

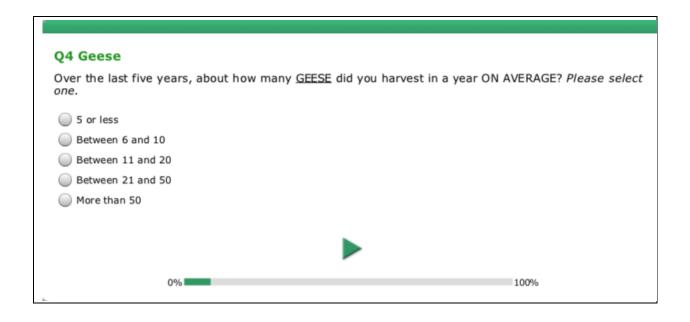
Please enter the Access Code that we mailed you in the box below:

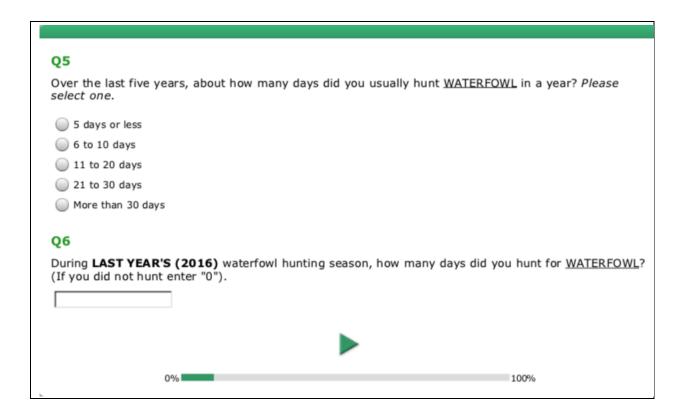
Submit Personal Access Code:	
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Q1
Which of the following statements best describes your pursuits in waterfowl hunting? Please select one.
I hunt only ducks
☐ I hunt ducks and geese
☐ I hunt only geese
I hunt neither ducks nor geese
Q2 How old were you when you started waterfowl hunting? Please type in an age.
Age
Please use the GREEN ARROWS at the bottom of each page to move forward to complete new questions or backward to review questions in the survey.
0%









Q7 How many times do you feel that you need to shoot a daily bag limit of ducks/geese to have a
How many times do you feel that you need to shoot a daily bag limit of ducks/geese to have a
satisfying season? Please select one.
○ Never
On at least one of my hunts
Occasionally on my hunts
Most of my hunts
Every time I hunted
Q8
How many times did you shoot a limit of ducks/geese last year's season (2016)? Please select one.
○ Never
On at least one of my hunts
Occasionally on my hunts
Most of my hunts
Every time I hunted
I did not hunt in 2016
0%



# Q10a In Canada and the United States, waterfowl are managed across four Flyways: Pacific, Central, Mississippi, and Atlantic. These Flyways are illustrated below: In which Flyway did you hunt most often last year (2016) or the year you last hunted? Please select one. 1-Pacific Flyway (BC, YT, AK, AZ, CA, ID, Western MT, NV, OR, UT, WA) 2-Central Flyway (AB, NT, SK, CO, Eastern MT, KS, ND, NE, NM, OK, SD, TX, WY) 3-Mississippi Flyway (ON, AL, AR, IA, IL, IN, LA, KY, MI, MN, MO, MS, OH, TN, WI, MB, NU) 4-Atlantic Flyway (NB, NL, NS, PE, QC, CT, DE, FL, GA, MA, MD, ME, NC, NH, NJ, NY, PA, RI, SC, VA, VT, WV)



Q11	
Do you primarily take day trips or overnight/multi-day trips when you waterfowl hunt? Please one.	select
Primarily day trips	
Primarily overnight or multi-day trips	
Both about equally	
Q12	
Please indicate where you do most of your waterfowl hunting? Please select one.	
Public land or waters	
Private property owned by you, your family or in partnership with someone else	
Private property owned by a friend or another landowner who gives you permission to hunt for free	
Private property you lease or pay to hunt on	
<ul> <li>Guest on private property someone else leases or pays to hunt on</li> </ul>	
0%	
100%	

### Q13 How important is it to you to hunt the following in the Central Flyway? Select one for each category. Slightly Not at all Moderately Extremely Very important important important important important Diving ducks (e.g., scaup/bluebills, canvasback, redheads, etc.) Mallards Other dabbling ducks (e.g., gadwall, pintails, teal, etc.) Geese 0%■ 100%

### Q13 How important is it to you to hunt the following in the Mississippi Flyway? Select one for each category. Not at all Slightly Moderately Extremely Very important important important important important Diving ducks (e.g., scaup/bluebills, canvasback, redheads, etc.) Mallards Other dabbling ducks (e.g., gadwall, pintails, Geese 0% 100%

### Q13 How important is it to you to hunt the following in the Atlantic Flyway? Select one for each category. Not at all Slightly Moderately Extremely important important important Very important important Diving ducks (e.g., scaup/bluebills, bufflehead, 0 canvasback, ringnecked duck, etc.) Seaducks (e.g., scoter, eider, and long-tailed) Mallards Wood ducks Black ducks Other ducks (e.g., teal, pintails, etc.) Canada geese Snow geese Brant 0% 100%

### Q13 How important is it to you to hunt the following in the Pacific Flyway? Select one for each category. Not at all Slightly Moderately Extremely important important important Very important important Diving ducks (e.g., scaup/bluebills, 0 0 canvasback, redheads, etc.) Seaducks (e.g., scoter, eider, long-tail, etc.) Mallards Pintails Other dabbling ducks (e.g., teal, wood duck, etc.) Geese 100%

### Q14 Please indicate how much of a problem the following are in the province / territory where you hunt waterfowl most. Select one for each. Very Slight Moderate Severe severe problem Not at all problem problem problem Crowding at hunting areas Hunting pressure Interference from other waterfowl hunters Conflict with other waterfowl hunters in places I hunt Lack of public places for waterfowl hunting 0% 100%

	Very Dissatisfied	Somewhat Dissatisfied	Neutral	Somewhat Satisfied	Very Satisfic
The number of ducks you see during the season					
The number of ducks you harvest during the season	0	0	0	0	0
The number of days in the duck season					
The number of ducks in the daily limit	0	0	0	0	0
The number of ducks typically present during the hunting season					
Quality of habitat where you hunt	0	0	0	0	0
Your overall duck hunting experience					

Q16a
What is the minimum number of ducks you have to harvest in a day to feel satisfied with the hunt?
Q16b
What is the smallest daily bag limit you would accept before you would no longer hunt ducks?
Q16c
What is the minimum number of days in a waterfowl hunting season you would accept before you would no longer hunt ducks?
0%

### WATERFOWL HUNTING CHOICES

Waterfowl hunting experiences can vary across many different areas and situations. You might hunt very near your home or drive a few hours away to hunt. You might hunt on public land for free or pay a daily or seasonal lease fee to hunt on private land. We are interested in knowing what experiences and conditions influence where you decide to hunt on a given trip. On the next few pages, we present 10 different hypothetical comparisons of waterfowl hunting trips you could choose to take. These trips vary on 5 conditions:

- 1) Harvest: The number of waterfowl you are likely to harvest in a day;
- 2) Access Effort: How easy or difficult it is to get into, out of and around an area in order to hunt;
- 3) Length of Travel: The time you have to travel one-way in order to hunt;
- 4) **Quantity of Waterfowl:** The number of ducks/geese that you see in a day when hunting even if not in shooting range; and
- 5) **Potential for Interference/Competition:** Competition from other hunters who might interfere with your hunt in some way such as making you feel crowded or competing for hunting spots or birds.

Some of these scenarios might seem unlikely to you, or neither option represents the places you currently hunt, but we are still interested in understanding which described hunts you would choose. Your opinions about these comparisons will help waterfowl managers better understand waterfowl hunter preferences.

For each scenario, select the <u>one choice</u> you would make if these were your only hunting options and assuming all other conditions were the same.



If these were your only options for a waterfowl hunt, which would you choose? Choose by clicking one of the buttons below: ([%CBCCURRENTTASK();%] of [%CBCTOTALTASKS();%]) Option 1 Option 2 WOULD NOT GO One bird 3 birds Harvest: Number of waterfowl you NONE: I would not go likely harvest in a day waterfowl hunting if these were my only Easy access that takes Moderate access that Access Effort: How easy or difficult choices. it is to get into, out of and around an little effort takes some effort area in order to hunt 30 minutes Length of Travel: The time you 3 hours have to travel one-way in order to Quantity of Waterfowl: The 50 birds 1,000 birds or more number of ducks/geese that you see in a day when hunting even if not in shooting range Potential for High competition from Moderate competition Interference/Competition: other hunters from other hunters Competition from other hunters who might interfere with your hunt Choose one option

%CBCCURRENTTASK();%] of [%C	BCTOTALTASKS();%])		
	Option 1	Option 2	WOULD NOT GO
Harvest: Number of waterfowl you likely harvest in a day	3 birds	6 birds	NONE: I would not go waterfowl hunting if
Access Effort: How easy or difficult it is to get into, out of and around an area in order to hunt	Difficult access that takes a lot of effort	Easy access that takes little effort	these were my only choices.
Length of Travel: The time you have to travel one-way in order to hunt	4 hours	4 hours	
Quantity of Waterfowl: The number of ducks/geese that you see in a day when hunting even if not in shooting range	250 birds	25 birds or less	
Potential for Interference/Competition: Competition from other hunters who might interfere with your hunt	No competition	Low competition from other hunters	
Choose one option	0		0

If these were your only options for a waterfowl hunt, which would you choose? Choose by clicking one of the buttons below: ([%CBCCURRENTTASK();%] of [%CBCTOTALTASKS();%]) Option 1 Option 2 WOULD NOT GO 6 birds 3 birds Harvest: Number of waterfowl you NONE: I would not go likely harvest in a day waterfowl hunting if these were my only Difficult access that Moderate access that Access Effort: How easy or difficult choices. it is to get into, out of and around an takes a lot of effort takes some effort area in order to hunt 1 hour Length of Travel: The time you 2 hours have to travel one-way in order to Quantity of Waterfowl: The 500 birds 500 birds number of ducks/geese that you see in a day when hunting even if not in shooting range Potential for High competition from Low competition from Interference/Competition: other hunters other hunters Competition from other hunters who might interfere with your hunt Choose one option

%CBCCURRENTTASK();%] of [%C	BCTOTALTASKS();%])		
	Option 1	Option 2	WOULD NOT GO
Harvest: Number of waterfowl you ikely harvest in a day	One bird	One bird	NONE: I would not go waterfowl hunting if
Access Effort: How easy or difficult t is to get into, out of and around an area in order to hunt	Easy access that takes little effort	Moderate access that takes some effort	these were my only choices.
Length of Travel: The time you have to travel one-way in order to hunt	3 hours	2 hours	
Quantity of Waterfowl: The number of ducks/geese that you see n a day when hunting even if not in shooting range	250 birds	25 birds or less	
Potential for Interference/Competition: Competition from other hunters who might interfere with your hunt	Moderate competition from other hunters	No competition	
Choose one option	0	0	0

If these were your only options for a waterfowl hunt, which would you choose? Choose by clicking one of the buttons below: ([%CBCCURRENTTASK();%] of [%CBCTOTALTASKS();%]) Option 1 Option 2 WOULD NOT GO One bird 6 birds Harvest: Number of waterfowl you NONE: I would not go likely harvest in a day waterfowl hunting if these were my only Difficult access that Difficult access that Access Effort: How easy or difficult choices. it is to get into, out of and around an takes a lot of effort takes a lot of effort area in order to hunt 30 minutes 1 hour Length of Travel: The time you have to travel one-way in order to Quantity of Waterfowl: The 25 birds or less 50 birds number of ducks/geese that you see in a day when hunting even if not in shooting range Potential for Low competition from High competition from Interference/Competition: other hunters other hunters Competition from other hunters who might interfere with your hunt Choose one option

%CBCCURRENTTASK();%] of [%C	BCTOTALTASKS();%])		
	Option 1	Option 2	WOULD NOT GO
Harvest: Number of waterfowl you likely harvest in a day	6 birds	3 birds	NONE: I would not go waterfowl hunting if
Access Effort: How easy or difficult it is to get into, out of and around an area in order to hunt	Moderate access that takes some effort	Easy access that takes little effort	these were my only choices.
Length of Travel: The time you have to travel one-way in order to hunt	1 hour	2 hours	
Quantity of Waterfowl: The number of ducks/geese that you see in a day when hunting even if not in shooting range	1,000 birds or more	50 birds	
Potential for Interference/Competition: Competition from other hunters who might interfere with your hunt	Moderate competition from other hunters	No competition	
Choose one option	0	0	0

If these were your only options for a waterfowl hunt, which would you choose? Choose by clicking one of the buttons below: ([%CBCCURRENTTASK();%] of [%CBCTOTALTASKS();%]) Option 1 Option 2 WOULD NOT GO 6 birds One bird Harvest: Number of waterfowl you NONE: I would not go likely harvest in a day waterfowl hunting if these were my only Easy access that takes Difficult access that Access Effort: How easy or difficult choices. it is to get into, out of and around an little effort takes a lot of effort area in order to hunt 30 minutes 3 hours Length of Travel: The time you have to travel one-way in order to Quantity of Waterfowl: The 500 birds 1,000 birds or more number of ducks/geese that you see in a day when hunting even if not in shooting range Potential for Low competition from High competition from Interference/Competition: other hunters other hunters Competition from other hunters who might interfere with your hunt Choose one option

%CBCCURRENTTASK();%] of [%C	BCTOTALTASKS();%])		
	Option 1	Option 2	WOULD NOT GO
Harvest: Number of waterfowl you ikely harvest in a day	3 birds	6 birds	NONE: I would not go waterfowl hunting if
Access Effort: How easy or difficult it is to get into, out of and around an area in order to hunt	Moderate access that takes some effort	Moderate access that takes some effort	these were my only choices.
Length of Travel: The time you have to travel one-way in order to hunt	4 hours	3 hours	
Quantity of Waterfowl: The number of ducks/geese that you see n a day when hunting even if not in shooting range	1,000 birds or more	250 birds	
Potential for Interference/Competition: Competition from other hunters who might interfere with your hunt	High competition from other hunters	Moderate competition from other hunters	
Choose one option	0	0	0

%CBCCURRENTTASK();%] of [%C	BCTOTALTASKS();%])		
	Option 1	Option 2	WOULD NOT GO
Harvest: Number of waterfowl you likely harvest in a day	3 birds	6 birds	NONE: I would not go waterfowl hunting if
Access Effort: How easy or difficult it is to get into, out of and around an area in order to hunt	Easy access that takes little effort	Difficult access that takes a lot of effort	these were my only choices.
Length of Travel: The time you have to travel one-way in order to hunt	1 hour	4 hours	
Quantity of Waterfowl: The number of ducks/geese that you see in a day when hunting even if not in shooting range	250 birds	25 birds or less	
Potential for Interference/Competition: Competition from other hunters who might interfere with your hunt	Moderate competition from other hunters	No competition	
Choose one option	0	0	0

If these were your only options for a waterfowl hunt, which would you choose? Choose by clicking one of the buttons below: ([%CBCCURRENTTASK();%] of [%CBCTOTALTASKS();%]) Option 2 WOULD NOT GO Option 1 One bird 3 birds Harvest: Number of waterfowl you NONE: I would not go likely harvest in a day waterfowl hunting if these were my only Access Effort: How easy or difficult Easy access that takes Difficult access that choices. it is to get into, out of and around an little effort takes a lot of effort area in order to hunt Length of Travel: The time you 2 hours 30 minutes have to travel one-way in order to hunt 500 birds Quantity of Waterfowl: The 25 birds or less number of ducks/geese that you see in a day when hunting even if not in shooting range Potential for Moderate competition No competition Interference/Competition: from other hunters Competition from other hunters who might interfere with your hunt Choose one option

### Q18a How much priority should provincial / territorial and federal agencies give the following when setting annual duck hunting regulations? Select one for each. Very Very Moderate High High Low Low Having the largest bag limits possible Having the longest seasons possible Having the largest duck populations possible Avoiding different season lengths for different duck species Providing the simplest regulations possible Reducing the number of species-specific bag limits (i.e., bag limits that apply to specific species instead of the general duck bag limit) Having the largest drake mallard bag limits possible 0% 100%

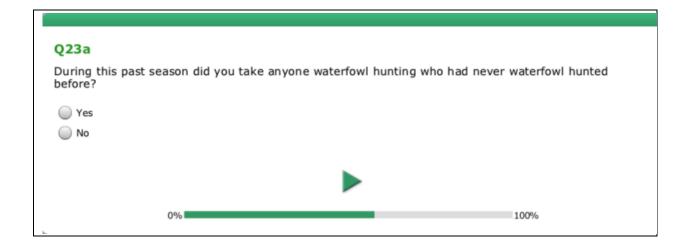
Q18b
Of all the options listed below, please rank your top three to indicate your highest priorities. Use the numbers 1, 2, and 3, with 1 being your highest priority, 2 being your second highest priority and 3 being your third highest priority. Use each number only once.
Having the largest bag limits possible
Having the longest seasons possible
Having the largest duck populations possible
Avoiding different season lengths for different duck species
Providing the simplest regulations possible
Reducing the number of species-specific bag limits (i.e., bag limits that apply to specific species instead of the general duck bag limit)
Having the largest drake mallard bag limits possible
0%

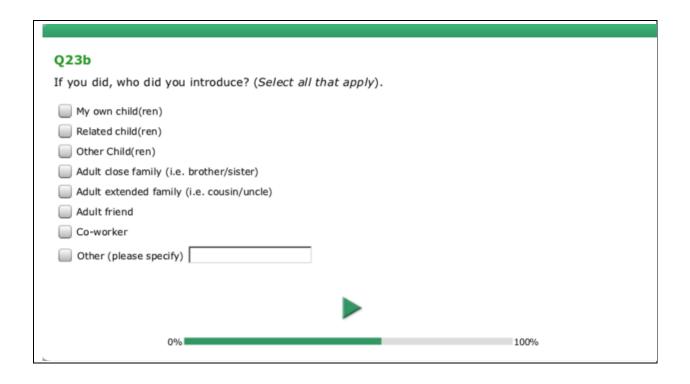
Duck bag limits restrict how many ducks can be bagged each day. For some duck species, the bag limit per day is different than the general duck bag limit. Such bag limits are termed "species-specific" bag limits.
Q19
For the provinces / territories where you hunt, are the rules and regulations for current species-specific bag limits difficult to understand?
○ No
Q20
For the provinces / territories where you hunt, are the current species-specific bag limits difficult to comply with in the field?
○ No
Q21
Please indicate your preferred scenario for bag limits of <b>duck species that typically have smaller bag limits</b> .
Maximize harvest opportunity by maintaining individual species bag limits.
Create simpler regulations by creating aggregate bag limits for a combination of certain species (e.g., a diving duck limit).
0%

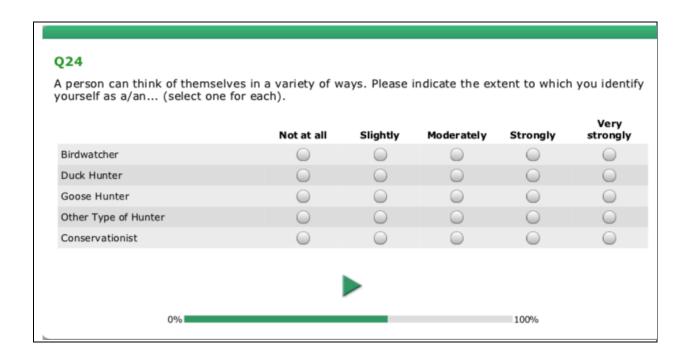
### Q22

We are interested in knowing how much waterfowl hunting means to you. Please indicate how much you disagree or agree with the following statements about your personal participation in waterfowl hunting. (Select one for each.)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
If I couldn't go waterfowl hunting I am not sure what I would do instead	0		0	0	
A lot of my life is organized around waterfowl hunting.	0	0		0	
Waterfowl hunting has a central role in my life.					
Getting to enjoy the natural environment through waterfowl hunting is important.	0	0	0	0	0
Being in nature is an important part of waterfowl hunting.					
Getting my limit is important to me.		0		0	
Developing my skills and abilities in waterfowl hunting is important to me.		0			
Challenging my waterfowl hunting skills is important.		0		0	0
Most of my friends are in some way connected with waterfowl hunting.	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	
The sights and sounds of nature are important to waterfowl hunting.	0	0	0	0	0
Waterfowl hunting is one of the most enjoyable activities I do.					
Using new techniques, technology and equipment to improve my waterfowl hunting is important to me.	0	0	0	0	0
•					







We are interested in knowing about your "personal community" and whether you know people in certain kinds of occupations and people affiliated with certain types of organizations. Among your relatives, close friends, or acquaintances, are there people who participate in the following activities, have the following jobs or who belong to the following organizations? Also, would you classify yourself in any of the following areas? (Select all that apply for each row or leave blank for "no one" in that row.)

	Acquaintance	Close Friend	Relative	Myself
Angler				
Birdwatcher				
Farmer/Rancher				
National park manager/employee				
Outdoor educator				
Provincial / Territorial / State park manager/employee				
Waterfowl hunter				
Other type of hunter (e.g., small/big game)				
Provincial / Territorial / State wildlife agency manager/employee				
Federal wildlife agency manager/employee				
Wildlife artist (amateur or professional)				
Wildlife biologist				
Wildlife photographer (amateur or professional)				
025 /				

Q25 is continued on the next screen.



%

### Q25 (continued)

We are interested in knowing about your "personal community" and whether you know people in certain kinds of occupations and people affiliated with certain types of organizations. Among your relatives, close friends, or acquaintances, are there people who participate in the following activities, have the following jobs or who belong to the following organizations? Would you classify yourself in any of the following areas? (Select all that apply for each row or leave blank for "no one" in that row.)

	Acquaintance	Close Friend	Relative	Myself
Member of a fishing/conservation organizations (e.g., Trout Unlimited; Izaak Walton)				
Member of birding and birdwatching groups (e.g., Bird Studies Canada)				
Member of bird conservation groups (e.g., National Audubon Society, including local chapters; American Bird Conservancy, Cornell Lab, bird observatories)				
Member of ornithological societies and groups (e.g., Western field ornithologist, National or regional ornithological societies)				
Member of Ducks Unlimited				
Member of Delta Waterfowl				
Member of provincial / territorial or regional waterfowl association				
Member of a hunting/conservation organizations not focused on waterfowl(e.g., provincial / territorial wildlife federation)				
Member of other local/regional conservation organizations				
Member of local naturalist organizations				
Member of other national/international conservation organizations (e.g., The Nature Conservancy, Sierra Club, World Wildlife Fund)				
	<b>•</b>			
0%			100%	

Q26  Please indicate your level of involvement with the following organizations in the past 12 months, even if you were not a member. (Select one for each).				
	No Involvement	Slight Involvement	Moderate Involvement	High Involvement
Ducks Unlimited				
Delta Waterfowl	0	0	0	0
Provincial / Territorial / Regional Waterfowl Association				
0%	<b>&gt;</b>		100%	

### Q27 How much trust do you have in the following organizations to keep your best interest in mind as a waterfowl hunter? (Select one for each organization). Do not trust Trust Trust Trust a little Trust a lot at all somewhat completely Provincial / Territorial wildlife agencies Federal wildlife and land management agencies (e.g., Canadian Wildlife Service, Natural Resoureces Canada) Elected officials Waterfowl hunting/conservation organizations Birding/bird conservation organizations Other conservation organizations University/college researchers/scientists

100%

0%

### **Q28** Please indicate how much money you personally donated to the following causes in the past 12 months. (Select one amount for each). \$1000 \$2500 \$5000 Less Total amount donated in \$ \$250 to \$10,000 than to to to \$0 \$999 \$2499 \$4999 \$9999 \$250 or more Wetland and/or waterfowl conservation 0 0 0 Conservation of other bird species Birdwatching and related issues Waterfowl hunting and hunting related issues 100%

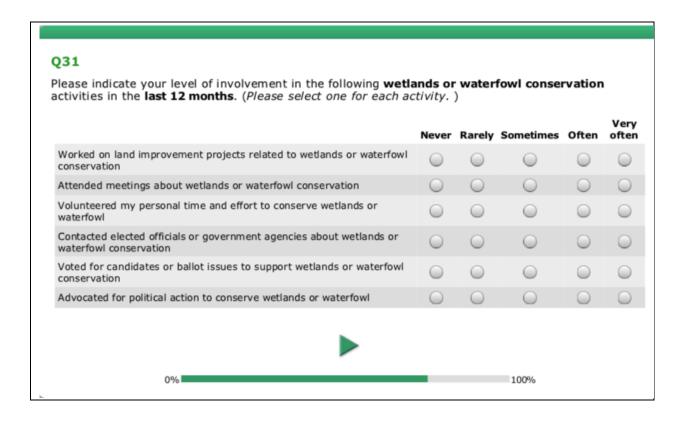
### **Q29**

Under the Migratory Birds Regulations, hunters must acquire both a Migratory Game Bird Hunting (MGBH) permit and a Canadian Wildlife Habitat Conservation (CWHC) stamp. Each cost \$8.50 for a combined total of \$17. Revenue from the stamp goes to Wildlife Habitat Canada to support habitat conservation. Revenue from the permit provides partial support for managing permits and monitoring waterfowl populations. The stamp and permit fees have not increased since 1991 and 1998 respectively.

Would you still be willing to buy a Migratory Game Bird Hunting permit and a Canadian Wildlife Habitat Conservation stamp if:

	Yes	No
$\dots$ the Stamp fee increases by \$4 for new combined fee of \$21.	$\odot$	
the Stamp fee increases by \$4 and Permit fee increases by \$4 for new combined fee of \$25.	0	0
the Stamp fee increases by \$9 and Permit fee increases by \$9 for new combined fee of \$35.	<b></b>	
the Stamp and Permit fees along with the combined fee remain the same (i.e., no fee increase).	0	0
0%		100%

Q30
In the past 12 months did you personally spend money for wetlands management on private lands?
○ No
Yes — if so, how much did you spend? (Please round to the nearest \$500 if more than \$1000)
Yes, but I'd rather not say how much
0%
0%



Q32		
n the last 12 Yes" or "No		ave you participated in the following nature-based activities? (Please select
Yes	No	
		Spending time in nature away from home (e.g., picnicking, relaxing in nature, camping)
0	0	Viewing wildlife (e.g., wildlife watching, bird watching, bird feeding, wildlife photography)
		Learning about nature (e.g., attending festivals or lectures, visiting a nature center)
0	0	Backyard/at-home nature activities (e.g., gardening, landscaping)
		Fishing
0	0	Hunting migratory birds other than waterfowl (e.g., doves, woodcock, rails, etc.)
		Hunting other game birds (e.g., grouse, pheasants, turkey)
0	0	Hunting any other game animals (e.g., deer, elk, rabbit, etc.)
		Other (please specify if yes)
	0%	100%

	Yes	No
Watching birds at my home		
Feeding birds at my home	0	0
Vatching birds away from my home		
Photographing or filming birds	0	0
Counting/monitoring birds (e.g., Christmas or Backyard Bird Count)	0	
Keeping track of the birds you see on a list, online or on paper	0	0
nstalling or maintaining nest boxes for birds		

### Your Opinions about Wetlands

In this section we would like to know what you think about wetlands.

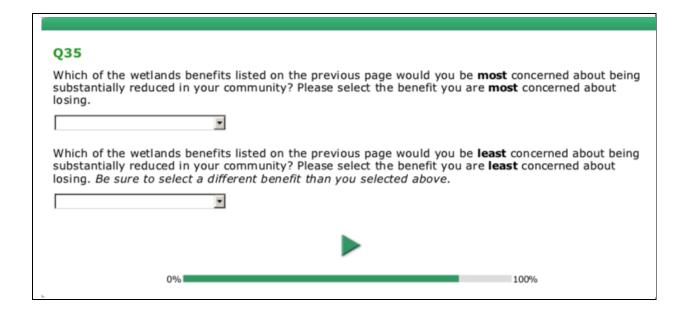
Wetlands include swamps, marshes, bogs, shallow ponds (less than 1.8 meters or 6 feet deep), and shallow areas on lakeshores and seashores. Some wetlands are only wet some of the year, while others are wet year round. They can be in cities or in rural areas and can be the size of a basketball court or cover several square miles.

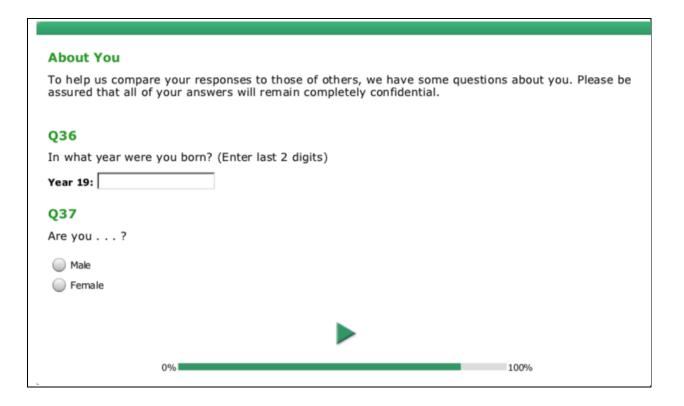


### Q34

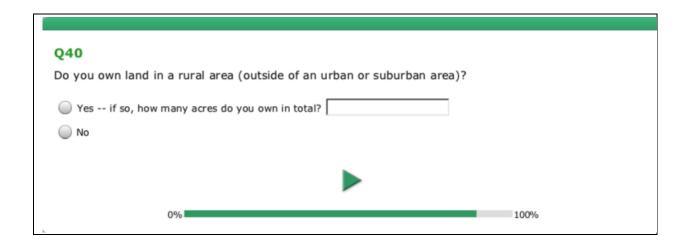
Wetlands perform a variety of functions which are beneficial to people. When wetlands are lost or degraded, these benefits can be greatly reduced or disappear altogether. Below is a list of benefits that are threatened due to loss of wetlands. How concerned would you be if the following benefits were reduced in your community due to the loss of wetlands? (*Please select one for each benefit*).

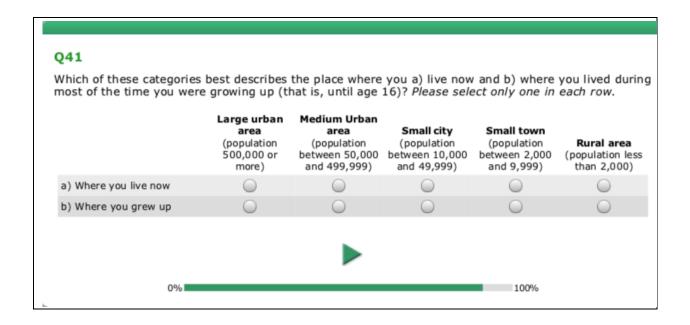
Benefit	Not at all concerned	Slightly concerned	Somewhat concerned	Very concerned
A. Flooding protection				
B. Erosion protection	0	0	0	0
C. Wildlife viewing and birdwatching				
D. Hunting opportunities	0	0		0
E. Storage of greenhouse gases, such as carbon				$\bigcirc$
F. Clean water	0	0	0	0
G. Clean air				
H. Providing a home for wildlife	0	0	0	0
I. Providing a home for animals such as butterflies and bees that pollinate plants and crops	$\circ$	$\circ$	$\circ$	$\bigcirc$
J. Scenic places for inspiration or spiritual renewal	0	0	0	0

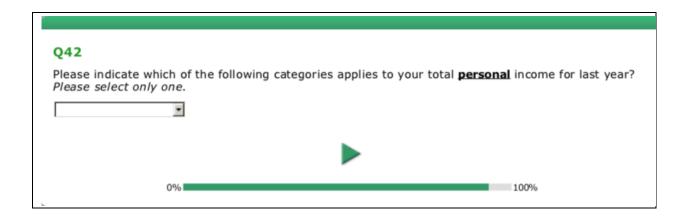




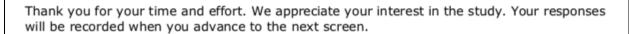
Q38
What is the highest level of education you have completed? Please select only one.
w w
Q39
Is a nature-related profession (such as farming, fisheries, forestry, environmental science, or conservation) the primary source of your <b>PERSONAL</b> income? <i>Please select only one</i> .
○ No
0%













We appreciate your interest in the study. Many of our questions are about current waterfowl hunting experiences, so at this time we are only focusing on active waterfowl hunters. We hope you get the opportunity to continue hunting in the future.



# Note: When respondents take the survey in regular mode this page will not be displayed. Respondents will be redirected to the link below: http://nawmp.wetlandnetwork.ca/



This project was undertaken with the financial support of: Ce projet a été réalisé avec le soutien financier de :













# **National Survey of Waterfowl Hunters**

To begin the survey in English, click on the button below.

**English** 

# Étude nationale sur les chasseurs de sauvagine

Pour commencer l'enquête en français, cliquez sur le bouton ci-dessous.

Français



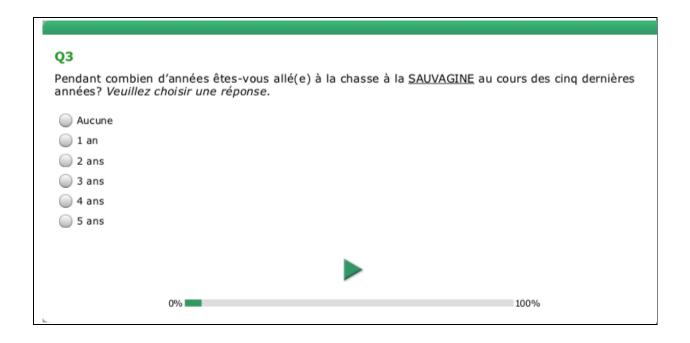
# Étude nationale sur les chasseurs de sauvagine

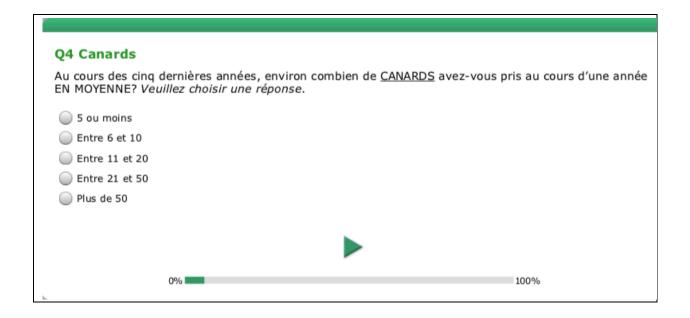
Merci de participer à l'étude nationale sur les chasseurs de sauvagine. Vous êtes l'un des quelques chasseurs de sauvagine de votre province ou territoire invités à participer à cette étude. Le Service canadien de la faune participe au parrainage de cette étude puisqu'il est important pour lui de comprendre vos expériences en matière de chasse à la sauvagine et ce qui, selon vous, pourrait les améliorer. Nous collaborons étroitement avec vos gestionnaires provinciaux et territoriaux de la sauvagine ainsi qu'avec les Conseils nationaux des voies migratoires afin de réaliser cette étude. Il vous faudra environ 20 minutes pour répondre aux questions qu'elle renferme, et nous vous remercions pour votre temps et vos efforts. Vos réponses sont très importantes pour cette étude et seront utilisées pour contribuer à orienter et améliorer la gestion future de la sauvagine. Soyez assuré(e) que votre participation à cette étude ainsi que la totalité de vos réponses demeureront confidentielles. VOUS DEVEZ AVOIR 18 ANS OU PLUS POUR PARTICIPER. Merci de votre aide!

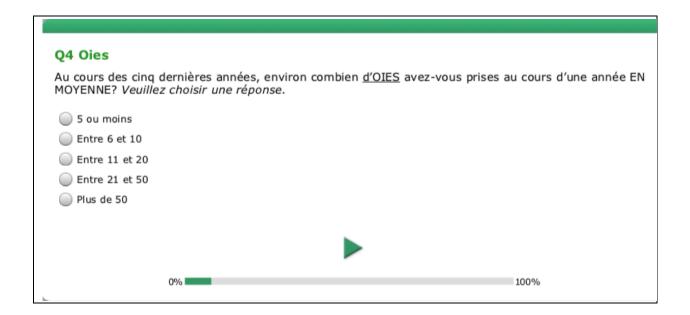
Veuillez entrer le code d'accès que nous vous avons fait parvenir par courriel dans la case ci-après :

Soumettre le code personnel d'accès :	
n	

Q1
Parmi les énoncés suivants, lequel décrit le mieux vos objectifs en matière de chasse à la sauvagine? Veuillez choisir une réponse.
Je ne chasse que le canard
Je chasse le canard et l'oie
Je ne chasse que l'oie
Je ne chasse ni le canard ni l'oie
Q2
À quel âge avez-vous commencé à chasser la sauvagine? Veuillez indiquer l'âge.
ans
Veuillez utiliser les FLÈCHES VERTES dans le bas de chaque page pour répondre à une nouvelle question, ou les flèches de recul pour revenir aux questions précédentes.
0%

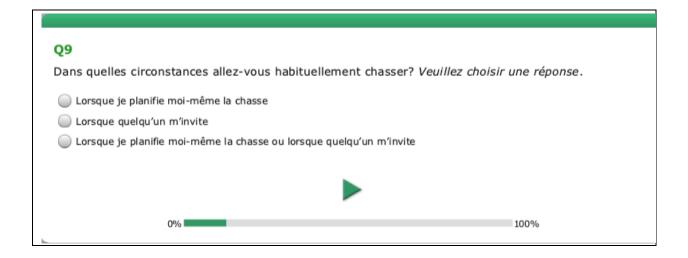




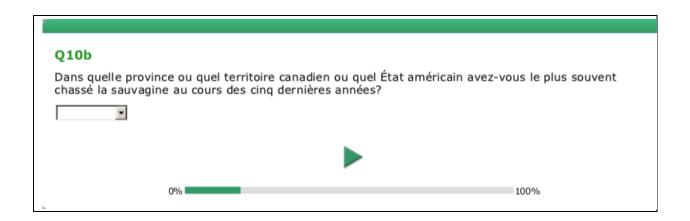


Q5
Au cours des cinq dernières années, environ combien de jours consacrez-vous à la chasse à la <u>SAUVAGINE</u> par année? <i>Veuillez choisir une réponse</i> .
5 jours ou moins
Oe 6 à 10 jours
De 11 à 20 jours
De 21 à 30 jours
Plus de 30 jours
Q6
Au cours de la saison de chasse à la sauvagine de la <b>DERNIÈRE ANNÉE (2016)</b> , combien de jours avez-vous consacrés à la chasse à la <u>SAUVAGINE</u> ? (Si vous n'avez pas chassé, entrez « 0 ».)
0%

Q7
Combien de fois devez-vous atteindre le maximum de prises par jour de canards ou d'oies pour estimer avoir eu une saison satisfaisante? Veuillez choisir une réponse.
Au moins à une reprise
À quelques reprises
La plupart du temps
Chaque fois que je vais chasser
Q8
Au cours de la <b>saison de l'année dernière (2016)</b> , combien de fois avez-vous atteint le maximum de prises de canards ou d'oies? <i>Veuillez choisir une réponse</i> .
Au moins à une reprise
À quelques reprises
La plupart du temps
Chaque fois que je vais chasser
☐ Je n'ai pas chassé en 2016
0%



# Q10a Au Canada et aux États-Unis, la sauvagine est gérée au sein de quatre voies migratoires : Pacifique, Centre, Mississippi, et Atlantique. Ces voies migratoires sont illustrées ci-dessous : Dans quelle voie migratoire avez-vous le plus souvent chassé au cours de l'an passé (2016) ou au cours de la dernière année où vous avez chassé? Veuillez choisir une réponse. 1-Voie migratoire du Pacifique (C.-B., YU, AK, AZ, CA, ID, MT de l'ouest, NV, OR, UT, WA) 2-Voie migratoire du Centre (AB, NT, SK, CO, MT de l'est, KS, ND, NE, NM, OK, SD, TX, WY) 3-Voie migratoire du Mississippi (ON, AL, AR, IA, IL, IN, LA, KY, MI, MN, MO, MS, OH, TN, WI, MB, NU) 4-Voie migratoire de l'Atlantique (N.-B., TN, N.-É., PE, QC, CT, DE, FL, GA, MA, MD, ME, NC, NH, NJ, NY, PA, RI, SC, VA, VT, WV)



Q11	
Lorsque vous partez à la chasse à la sauvagine, effectuez-vous principalement des déplaceme journée ou des voyages de deux jours ou plus? <i>Veuillez choisir une réponse</i> .	ents d'une
Principalement des déplacements d'une journée	
Principalement des voyages de deux jours ou plus	
Les deux à peu près également	
Q12	
À quel endroit chassez-vous le plus la sauvagine? Veuillez choisir une réponse.	
Terres ou plans d'eau publics	
Propriété privée détenue par vous, votre famille ou en partenariat avec une autre personne	
Propriété privée détenue par un ami ou un autre propriétaire qui vous donne la permission d'y chasser sa	ıns frais
Propriété privée que vous louez ou vous payez des frais pour y chasser	
Invité sur une propriété privée que quelqu'un d'autre loue ou paye des frais pour y chasser	
0%	

### Q13 À quel point est-il important pour vous de chasser les animaux suivants dans la voie migratoire du Centre? Choisissez une réponse pour chaque catégorie. Pas du tout Légèrement Moyennement Très Extrêmement important important important important important Canards plongeurs (fuligules à collier, à dos blanc, à tête rouge, etc.) Canards colverts Autres canards barboteurs (p. ex., canards chipeaux, canards pilets, sarcelles, etc.) Oies 0% 100%

### Q13 À quel point est-il important pour vous de chasser les animaux suivants dans la voie migratoire du Mississippi? Choisissez une réponse pour chaque catégorie. Extrêmement Pas du tout Légèrement Moyennement Très important important important important important Canards plongeurs (fuligules à collier, à dos blanc, à tête rouge, etc.) Canards colverts Autres canards barboteurs (p. ex., canards chipeaux, canards pilets, sarcelles, etc.) Oies 0% 100%

### Q13 À quel point est-il important pour vous de chasser les animaux suivants dans la voie migratoire de l'Atlantique? Choisissez une réponse pour chaque catégorie. Pas du tout Légèrement Moyennement Extrêmement important important important Très important important Canards plongeurs Canards de mer Canards colverts Canards branchus Canards noirs Autres canards Bernaches du Canada Oies des neiges Bernaches cravants 0% 100%

### Q13

À quel point est-il important pour vous de chasser les animaux suivants dans la voie migratoire du Pacifique? Choisissez une réponse pour chaque catégorie.

	Pas du tout important	Légèrement important	Moyennement important	Très important	Extrêmement important
Canards plongeurs (fuligules à collier, à dos blanc, à tête rouge, etc.)	0	0	0	0	
Canards de mer (p. ex., macreuses, eiders, hareldes, etc.)	0	0	0	0	0
Canards colverts					
Canards pilets	0	0	0	0	0
Autres canards barboteurs (p. ex., canards chipeaux, canards pilets, sarcelles, etc.)	0	0	0	0	
Oies	0	0	0	0	0
		•			
0%	6			100%	

### Q14

Veuillez indiquer l'ampleur des problèmes qui suivent dans la province ou le territoire où vous chassez le plus la sauvagine. Choisissez une réponse pour chacun.

	Pas problématique	Légèrement problématique	Modérément problématique	Très problématique	Extrêmement problématique
Encombrement dans les sites de chasse					
Pression exercée par la chasse	0	0	0	0	0
Interférence d'autres chasseurs de la sauvagine		$\bigcirc$		$\circ$	
Conflits avec d'autres chasseurs de la sauvagine aux endroits où je chasse	0	0	0	0	0
Manque d'endroits publics pour la chasse à la sauvagine	0	$\circ$	0	$\circ$	$\circ$
0%				100%	

	Très insatisfait	Plutôt insatisfait	Neutre	Plutôt satisfait	Trè satisf
Le nombre de canards que vous voyez au cours de la saison					
Le nombre de canards que vous prenez au cours de la saison	0	0	0	0	0
Le nombre de jours de la saison du canard					
Le nombre de canards imposé par le maximum de prises par jour	0	0	0	0	C
Le nombre de canards habituellement présents pendant la saison de la chasse	0				
La qualité de l'habitat où vous chassez	0	0	0	0	0
Votre expérience générale de chasse					0

Q16a
Quel est le plus petit nombre de canards que vous devez prendre en une journée pour vous sentir satisfait de votre chasse?
Q16b
Quel est le plus petit maximum de prises par jour que vous accepteriez avant de décider de ne plus aller à la chasse au canard?
Q16c
Quel est le nombre minimal de jours pendant une saison de chasse à la sauvagine que vous accepteriez avant de décider de ne plus chasser le canard?
0%

### CHOIX DE CHASSE À LA SAUVAGINE

Les expériences en matière de chasse à la sauvagine peuvent varier selon différentes régions et situations. Vous pourriez chasser très près de votre domicile, ou vous rendre à quelques heures de distance pour chasser. Vous pourriez chasser gratuitement sur des terres publiques ou payer des frais saisonniers pour chasser sur des terres privées. Nous aimerions savoir quelles expériences et conditions influencent votre décision de chasser au cours d'un déplacement en particulier. Sur les peu prochaines pages, nous présentons 10 différentes comparaisons hypothétiques d'expériences de chasse à la sauvagine que vous pourriez choisir de vivre. Ces expériences varient en fonction de cinq conditions :

- 1) Prises: Le nombre probable de sauvagines que vous prendrez en une journée;
- 2) **Effort d'accès :** Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser;
- 3) Durée du voyage : La durée d'un déplacement, aller seulement, afin d'aller chasser;
- 4) **Quantité de sauvagines :** Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir;
- 5) **Possibilité d'interférence ou de concurrence :** Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.

Certains de ces scénarios peuvent vous sembler peu probables, ou aucune option ne correspond aux endroits où vous chassez à l'heure actuelle, mais nous souhaitons quand même comprendre quelles sont les expériences de chasse décrites que vous choisiriez. Vos opinions au sujet de ces comparaisons aideront les gestionnaires à mieux comprendre les préférences en matière de chasse à la sauvagine.

Pour chaque scénario, sélectionnez le choix que vous feriez s'ils constituaient les seules options de chasse, en supposant que toutes les autres conditions sont les mêmes.



Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	Un oiseau	3 oiseaux	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès facile nécessitant peu d'effort	Accès modérément facile nécessitant un peu d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	3 heures	30 minutes	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	50 oiseaux	1 000 oiseaux ou plus	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Grande concurrence d'autres chasseurs	Concurrence modérée d'autres chasseurs	
Choisissez une option	0	0	0



% 100%

Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	3 oiseaux	6 oiseaux	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès difficile nécessitant beaucoup d'effort	Accès facile nécessitant peu d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	4 heures	4 heures	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	250 oiseaux	25 oiseaux ou moins	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Aucune concurrence	Peu de concurrence d'autres chasseurs	
Choisissez une option	0	0	0



% 100%

Si ces scénarios constituaient vos seules options de chasse à la sauvagine, lequel choisiriezvous?

Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	6 oiseaux	3 oiseaux	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès difficile nécessitant beaucoup d'effort	Accès modérément facile nécessitant un peu d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	2 heures	1 heure	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	500 oiseaux	500 oiseaux	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Grande concurrence d'autres chasseurs	Peu de concurrence d'autres chasseurs	
Choisissez une option	0	0	0



Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	Un oiseau	Un oiseau	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès facile nécessitant peu d'effort	Accès modérément facile nécessitant un peu d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	3 heures	2 heures	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	250 oiseaux	25 oiseaux ou moins	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Concurrence modérée d'autres chasseurs	Aucune concurrence	
Choisissez une option	0	0	0



% 100%

Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	Un oiseau	6 oiseaux	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès difficile nécessitant beaucoup d'effort	Accès difficile nécessitant beaucoup d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	30 minutes	1 heure	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	25 oiseaux ou moins	50 oiseaux	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Peu de concurrence d'autres chasseurs	Grande concurrence d'autres chasseurs	
Choisissez une option	0	0	0



% 100%

Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	6 oiseaux	3 oiseaux	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès modérément facile nécessitant un peu d'effort	Accès facile nécessitant peu d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	1 heure	2 heures	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	1 000 oiseaux ou plus	50 oiseaux	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Concurrence modérée d'autres chasseurs	Aucune concurrence	
Choisissez une option	0	0	0



Si ces scénarios constituaient vos seules options de chasse à la sauvagine, lequel choisiriezvous?

Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	6 oiseaux	Un oiseau	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès facile nécessitant peu d'effort	Accès difficile nécessitant beaucoup d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	30 minutes	3 heures	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	500 oiseaux	1 000 oiseaux ou plus	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Peu de concurrence d'autres chasseurs	Grande concurrence d'autres chasseurs	
Choisissez une option	0	0	0



Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	3 oiseaux	6 oiseaux	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès modérément facile nécessitant un peu d'effort	Accès modérément facile nécessitant un peu d'effort	choix.
Durée du voyage : La durée d'un déplacement aller seulement afin d'aller chasser.	4 heures	3 heures	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	1 000 oiseaux ou plus	250 oiseaux	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Grande concurrence d'autres chasseurs	Concurrence modérée d'autres chasseurs	
Choisissez une option	0	0	0



0%

Si ces scénarios constituaient vos seules options de chasse à la sauvagine, lequel choisiriezvous?

Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	3 oiseaux	6 oiseaux	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès facile nécessitant peu d'effort	Accès difficile nécessitant beaucoup d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	1 heure	4 heures	
Quantité de sauvagines : Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	250 oiseaux	25 oiseaux ou moins	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Concurrence modérée d'autres chasseurs	Aucune concurrence	
Choisissez une option	0	0	0



Indiquez votre choix en cliquant sur l'un des boutons ci-après :

([%CBCCURRENTTASK();%] de [%CBCTOTALTASKS();%])

	Option 1	Option 2	N'IRAIS PAS
<b>Prises :</b> Le nombre probable de sauvagines que vous prendrez en une journée.	3 oiseaux	Un oiseau	AUCUNE : Je n'irais pas si ces scénarios constituaient mes seuls
<b>Effort d'accès :</b> Facilité ou difficulté d'entrée, de sortie et de circulation dans une région afin d'y chasser.	Accès facile nécessitant peu d'effort	Accès difficile nécessitant beaucoup d'effort	choix.
<b>Durée du voyage :</b> La durée d'un déplacement aller seulement afin d'aller chasser.	2 heures	30 minutes	
<b>Quantité de sauvagines :</b> Le nombre de canards ou d'oies que vous voyez en une journée lorsque vous chassez, même s'ils ne sont pas à portée de tir.	25 oiseaux ou moins	500 oiseaux	
Possibilité d'interférence ou de concurrence : Concurrence d'autres chasseurs qui peuvent interférer avec votre chasse d'une certaine façon comme en vous donnant une impression d'encombrement ou de concurrence pour des endroits de chasse ou des oiseaux.	Concurrence modérée d'autres chasseurs	Aucune concurrence	
Choisissez une option	0	0	0



0%

$\overline{}$	•	0	_

Quelle priorité est-ce que les organismes provinciaux ou territoriaux et fédéraux devraient accorder à ce qui suit lorsqu'ils établissent les règlements de la chasse annuelle à la sauvagine? *Choisissez une réponse pour chacun*.

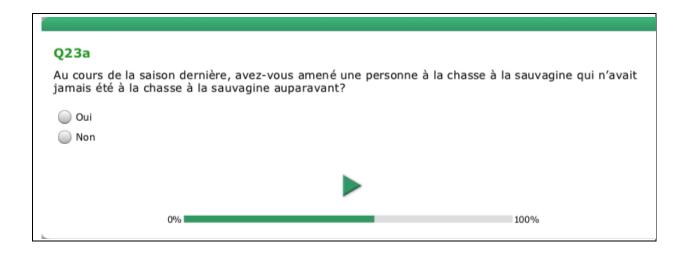
	Très bas	Faible	Modéré	Élevé	Très élevé
Établir les plus grands maximums de prises possibles					
Établir la saison la plus longue possible	0	0	0	0	
Établir les plus grandes populations de canards possibles					
Éviter d'établir des durées de saisons différentes pour différentes espèces de canards	0	0	0	0	0
Établir des règlements les plus simples possible					
Réduire le nombre de maximums de prises spécifiques aux espèces (cà-d, des maximums de prises qui s'appliquent à des espèces précises plutôt qu'un maximum de prises pour l'ensemble des canards)	0	0	0	0	0
Établir le plus grand nombre de maximums de prises possibles de canards colverts					0
0%			100%		

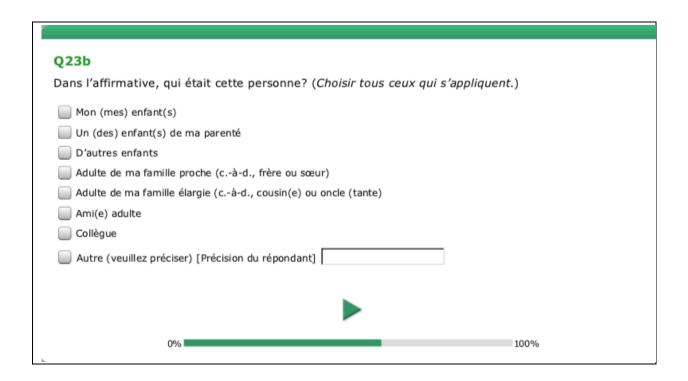
Q18b
Parmi toutes les options énumérées ci-après, veuillez noter vos trois préférences pour indiquer vos principales priorités. Utilisez les chiffres 1, 2 et 3, le chiffre 1 indiquant votre première priorité, 2, votr deuxième priorité, et 3, votre troisième priorité. N'utilisez chaque nombre qu'une seule fois.
Établir les plus grands maximums de prises possibles
Établir la saison la plus longue possible
Établir les plus grandes populations de canards possibles
Éviter d'établir des durées de saisons différentes pour différentes espèces de canards
Établir des règlements les plus simples possible
Réduire le nombre de maximums de prises spécifiques aux espèces (cà-d, des maximums de prises qui s'appliquent à des espèces précises plutôt qu'un maximum de prises pour l'ensemble des canards)
Établir le plus grand nombre de maximums de prises possibles de canards colverts
0%

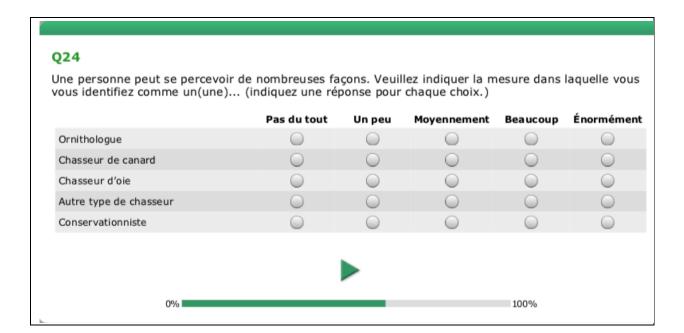
Les maximums de prises de canards limitent le nombre de canards que vous pouvez prendre chaque jour. Pour certaines espèces de canards, le maximum de prises par jour peut différer du maximum de prises de canards en général. Ces maximums de prises sont appelés des maximums de prises « propres à une espèce ».
Q19
Dans les provinces ou territoires où vous chassez, les règles et règlements à l'égard des maximums de prises propres à une espèce sont-ils difficiles à comprendre?
Oui
○ Non
Q20
Dans les provinces ou les territoires où vous chassez, est-ce que les maximums de prises actuelles, propres à une espèce, sont difficiles à respecter sur le terrain?
Oui
○ Non
Q21
Veuillez indiquer votre scénario préféré en matière de maximums de prises par <b>espèces de canards qu</b> comportent habituellement des maximums de prises plus basses.
Maximiser les occasions de prises en maintenant les maximums de prises individuelles propres à une espèce.
Créer des règles plus simples en établissant des maximums de prises générales pour une combinaison de certaines espèces (p. ex., un maximum de prises pour les canards plongeurs).
0%

Nous souhaitons connaître dans quelle mesure la chasse à la sauvagine est importante pour vous. Veuillez indiquer dans quelle mesure vous êtes en désaccord ou en accord avec les énoncés suivants au sujet de votre participation personnelle à la chasse à la sauvagine. (Choisissez une réponse pour chacun.)

	Tout à fait en désaccord	En désaccord	Neutre	D'accord	Tout à fait d'accord
Si je ne pouvais pas m'adonner à la chasse à la sauvagine, je ne suis pas certain(e) de ce que je ferais à la place.	$\circ$	$\circ$	$\circ$	0	$\circ$
Une grande partie de ma vie s'articule autour de la chasse à la sauvagine.	0	0	0	0	0
La chasse à la sauvagine occupe un rôle central dans ma vie.					
Il est important de pouvoir profiter de l'environnement naturel par l'intermédiaire de la chasse à la sauvagine.	0	0	$\circ$	0	0
Se retrouver en nature est une composante importante de la chasse à la sauvagine.		0			
Se rendre à mon maximum de prises est important pour moi.			0	0	
Je considère important de développer mes compétences et mes habiletés en matière de chasse à la sauvagine.	$\bigcirc$	$\circ$	$\bigcirc$		
Il est important pour moi de mettre mes compétences en chasse à la sauvagine au défi.	0	0	0	0	0
La plupart de mes amis sont liés d'une façon ou d'une autre à la chasse à la sauvagine.					
La vue et les sons de la nature sont importants à la chasse à la sauvagine.	0	0	$\circ$	0	0
La chasse à la sauvagine est une des activités les plus agréables que j'exerce.					
Il est important pour moi d'utiliser de nouvelles techniques et technologies et de nouveaux équipements pour améliorer ma chasse à la sauvagine.	0	0	0	0	0
0%					







### **Q25**

Nous souhaitons connaître votre « communauté personnelle », et si vous connaissez des personnes exerçant différentes activités, et des personnes liées à certains types d'organismes. Au sein de votre parenté, de vos amis proches ou de vos connaissances, y a-t-il des personnes qui participent aux activités suivantes, occupent les postes suivants ou appartiennent aux organismes suivants? De même, vous classeriez-vous dans un ou l'autre des domaines suivants? (Choisissez toutes les réponses qui s'appliquent pour chaque rangée, ou laissez la rangée vide pour « personne ».)

	Connaissance	Ami proche	Parent	Moi-même
Pêcheur				
Ornithologue				
Agriculteur/éleveur				
Gestionnaire ou employé d'un parc national				
Éducateur en plein air				
Gestionnaire ou employé d'un parc provincial, territorial ou d'État				
Chasseur de sauvagine				
Autre type de chasseur (p. ex., grand ou petit gibier)				
Gestionnaire ou employé d'un organisme de la faune provincial, territorial ou d'État				
Gestionnaire ou employé d'un organisme de la faune fédéral				
Artiste faunique (amateur ou professionnel)				
Biologiste de la faune				
Photographe faunique (amateur ou professionnel)				

Q25 se poursuit sur l'écran suivant.



### Q25 (suite)

Nous souhaitons connaître votre « communauté personnelle », et si vous connaissez des personnes exerçant différentes activités, et des personnes liées à certains types d'organismes. Au sein de votre parenté, de vos amis proches ou de vos connaissances, y a-t-il des personnes qui participent aux activités suivantes, occupent les postes suivants ou appartiennent aux organismes suivants? Vous classeriez-vous dans un ou l'autre des domaines suivants? (Choisissez toutes les réponses qui s'appliquent pour chaque rangée, ou laissez la rangée vide pour « personne ».)

	Connaissance	Ami proche	Parent	Moi-même
Membre d'un organisme de pêche ou de conservation (p. ex., Truites Illimitées, Izaak Walton)				
Membre de groupes d'observation d'oiseaux et d'ornithologie (p. ex., Études d'oiseaux Canada)				
Membre de groupes de conservation des oiseaux (p. ex., la Société nationale Audubon, y compris les chapitres locaux, American Bird Conservancy, Cornell Lab, observatoires d'oiseaux)				
Membre de sociétés et de groupes ornithologiques (p. ex., Western field ornithologist, sociétés ornithologiques nationales ou régionales)				
Membre de Canards Illimités				
Membre de Sauvagine de Delta				
Membre d'une association de la sauvagine provinciale ou territoriale ou régionale				
Membre d'organismes de chasse ou de conservation non axés sur la sauvagine (p. ex., fédérations de la faune provinciales ou territoriales)				
Membre d'autres organismes de conservation locaux ou régionaux				
Membre d'organismes naturalistes locaux				
Membre d'autres organismes de conservation nationaux ou internationaux (p. ex., The Nature Conservancy, Sierra Club, Fonds mondial pour la nature)				
0% ■	<b>&gt;</b>		100%	

### **Q26** Veuillez indiquer votre niveau de participation dans les organismes qui suivent au cours des 12 derniers mois, même si vous n'en êtes pas membre. (Choisissez une réponse pour chacun.) Légère Pas de Participation Grande participation participation modérée participation Canards Illimités Fondation Sauvagine de Delta Membre d'une association de la sauvagine provinciale ou territoriale ou régionale 100%

### **Q27** Dans quelle mesure faites-vous confiance aux organismes qui suivent afin qu'ils s'assurent de votre intérêt supérieur à titre de chasseur de sauvagine? (Choisissez une réponse pour chaque organisme.) Aucunement Légère Confiance Grande Confiance modérée totale confiance confiance confiance Organismes provinciaux ou territoriaux de conservation de la faune Membre d'organismes de la faune et de gestion des terres (p. ex., Service canadien de la faune, Ressources naturelles Canada) Représentants élus Organismes de chasse et de conservation de la sauvagine Organismes d'ornithologie et de conservation des oiseaux Autres organismes de conservation Chercheurs ou scientifiques universitaires 0% 100%

### **Q28** Veuillez indiquer la somme de vos dons personnels aux causes qui suivent au cours des 12 derniers mois. (Choisissez un montant pour chacune.) Entre Entre Entre 10 000 Moins Entre 1000 \$ 2500 \$ 5000 \$ Montant total de dons en \$ de 250 250 \$ à à 2499 à 4999 à 9999 \$ ou 0 \$ 999 \$ \$ \$ \$ \$ plus Conservation des milieux humides ou de 0 0 la faune Conservation d'autres espèces d'oiseaux Ornithologie et questions liées Chasse à la sauvagine et questions liées 0 à la chasse 0% 100%

### Q29

En vertu de la règlementation sur les oiseaux migratoires, les chasseurs doivent se procurer un permis de chasse aux oiseaux migrateurs (PCOM) et un timbre sur la conservation des habitats fauniques au Canada (CHFC). Chacun coûte 8,50 \$, pour un total combiné de 17,00 \$. Les revenus tirés du timbre sont remis à Habitat faunique Canada au soutien de la conservation des habitats. Les revenus tirés des permis offrent un soutien partiel à la gestion des permis et au suivi des populations de sauvagine. Le prix du timbre et du permis n'a pas augmenté depuis 1991 et 1998, respectivement.

Consentiriez-vous toujours à acheter un permis de chasse aux oiseaux migrateurs et un timbre sur la conservation des habitats fauniques du Canada si :

	Oui	Non			
le prix du timbre augmentait de 4 \$ pour de nouveaux frais combinés de 21 \$?	0				
le prix du timbre augmentait de 4 \$ et le prix du permis augmentait de 4 \$ pour de nouveaux frais combinés de 25 \$?	0	0			
le prix du timbre augmentait de 9 \$ et le prix du permis augmentait de 9 \$ pour de nouveaux frais combinés de 35 \$?	0				
le prix du timbre et du permis et les frais combinés demeuraient les mêmes (cà-d., pas d'augmentation des frais)?	0	0			
0%		100%			

## Q30 Au cours des 12 derniers mois, avez-vous personnellement déboursé de l'argent à l'égard de la gestion de milieux humides sur des terres privées? Non Oui -- Dans l'affirmative, combien avez-vous dépensé? (Veuillez arrondir au 500 \$ le plus près si plus de 1 000 \$.) Oui, mais je préfère ne pas dire combien.

0%

231 feuillez indiquer votre niveau de participation dans les ac IILIEUX HUMIDES OU DE LA SAUVAGINE qui suivent A électionnez qu'une seule réponse pour chaque catégorie	NO COUR				
	Jamais	Rarement	Quelques fois	Souvent	Très souve
J'ai travaillé sur des projets d'amélioration des terres liés à la conservation des milieux humides ou de la sauvagine		0			
J'ai assisté à des rencontres au sujet de la conservation des milieux humides ou de la sauvagine	0	0	0	0	0
J'ai bénévolement consacré du temps et des efforts à la conservation des milieux humides ou de la sauvagine		$\bigcirc$			
J'ai communiqué avec des représentants élus ou des organismes gouvernementaux au sujet de la conservation des milieux humides ou de la sauvagine	0	0	0	0	0
J'ai voté pour des candidats ou à des scrutins au soutien de la conservation des milieux humides ou de la sauvagine		$\circ$			
J'ai plaidé pour des mesures politiques aux fins de la conservation des milieux humides ou de la sauvagine	0	0	0	0	0

Oui	Non	
$\bigcirc$	0	Passer du temps dans la nature à l'extérieur du domicile (p. ex., pique-niques, relaxation en nature, camping)
0	0	Observation de la faune (p. ex., observation d'animaux, ornithologie, nourrir des oiseaux, photographie de la faune)
		Apprentissage au sujet de la nature (p. ex., participation à des festivals ou des conférences, visites de centres de la nature)
0	0	Activités en nature à domicile (p. ex., jardinage et aménagement paysager)
		Pêche
0	0	Chasse d'autres oiseaux migratoires (p. ex., tourterelles, bécasses, râles, etc.)
		Chasse d'autres gibiers (p. ex., gélinottes/tétras, faisans, dindons, etc.)
0	0	Chasse d'autres animaux (p ex., chevreuils, wapitis, lièvres, etc.)
		Autre (veuillez préciser si la réponse est « Oui »)

articipé? (Veuillez cocher « Oui » ou « Non » pour chacune.)	Oui	Non
Observer des oiseaux à mon domicile		
Nourrir des oiseaux à mon domicile	0	0
Observer des oiseaux à l'extérieur de mon domicile	0	
Photographier ou filmer des oiseaux	0	0
Recenser ou surveiller des oiseaux (p. ex., recensement des oiseaux de Noël ou dans cour)	la 🔾	
Faire le suivi des oiseaux que vous voyez sur une liste, en ligne ou sur papier	0	0
Installer ou entretenir des nichoirs pour oiseaux		

### Vos Opinions au Sujet des Milieux Humides

Dans cette section, nous souhaitons savoir ce que vous pensez au sujet des milieux humides.

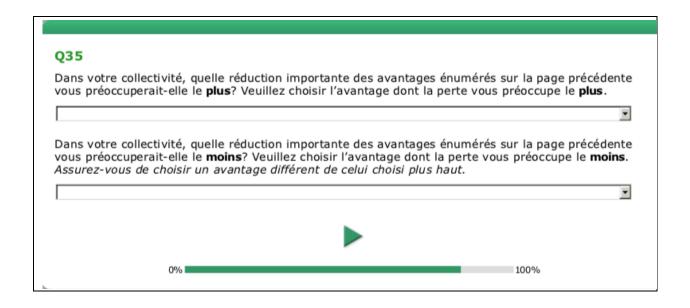
Les milieux humides comprennent les marais, les marécages, des étangs d'eau peu profonde (moins de 1,8 mètre ou 6 pieds de profondeur), et les zones peu profondes des rives de lacs ou des bords de mer. Certains milieux humides ne le sont qu'une partie de l'année, alors que d'autres le sont pendant toute l'année. Ils peuvent se trouver dans des villes ou des régions rurales et peuvent avoir la taille d'un terrain de basketball ou couvrir de nombreux kilomètres carrés.

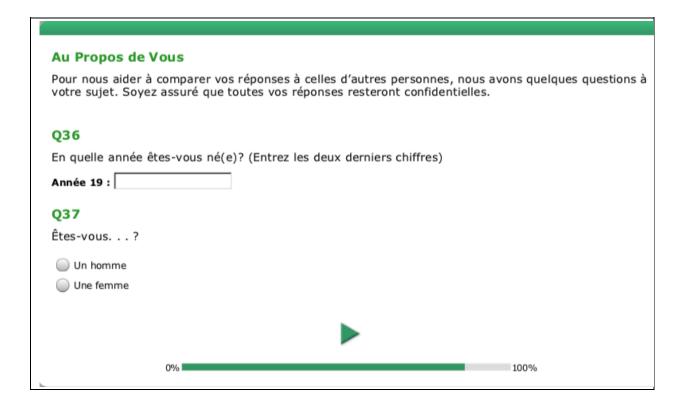


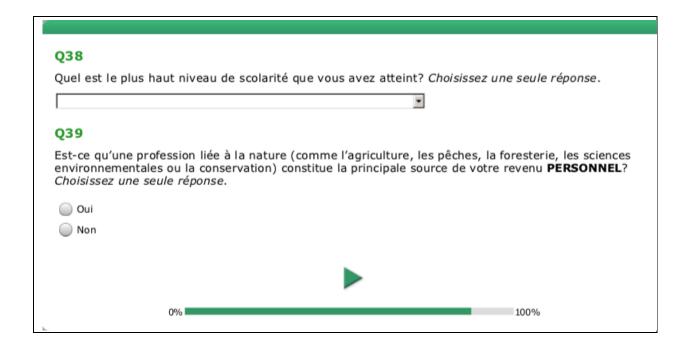
### Q34

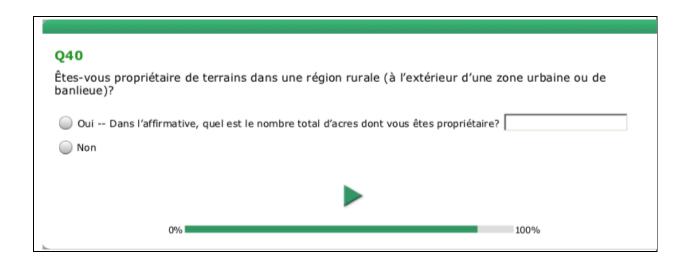
Les milieux humides remplissent un grand nombre de fonctions qui sont avantageuses pour tous. Lorsque des milieux humides sont perdus ou se dégradent, ces avantages peuvent être grandement réduits ou disparaître. Voici une liste d'avantages qui sont menacés en raison de la perte de milieux humides. Dans quelle mesure seriez-vous préoccupé(e) si les avantages qui suivent étaient réduits au sein de votre collectivité en raison de la perte de milieux humides? (Ne sélectionnez qu'une seule réponse pour chaque avantage.)

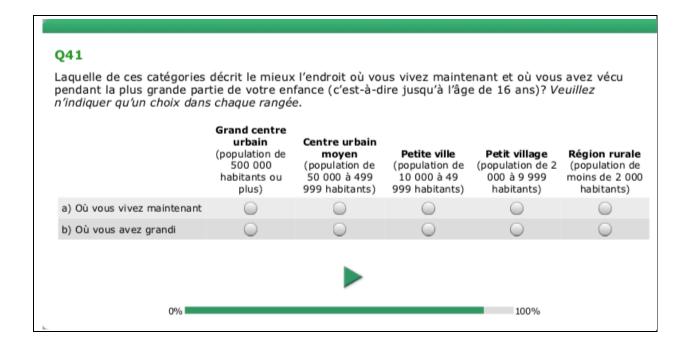
Avantage	Pas du tout préoccupé(e)	Légèrement préoccupé(e)	Plutôt préoccupé(e)	Très préoccupé(e)
A. Protection contre les inondations				
B. Protection contre l'érosion	0	0	0	0
C. Observation de la faune et ornithologie				
D. Occasions de chasse	0	0	0	0
E. Stockage de gaz à effet de serre, comme le carbone				
F. Eau propre		0		
G. Air sain				
H. Fournir un habitat pour la faune	0	0	0	$\circ$
<ol> <li>Fournir un habitat pour des animaux comme les papillons et les abeilles qui pollinisent les plantes et les récoltes</li> </ol>	0			
J. Endroits pittoresques pour l'inspiration ou le renouvellement spirituel	0	0	0	0
	•			
0%			100%	

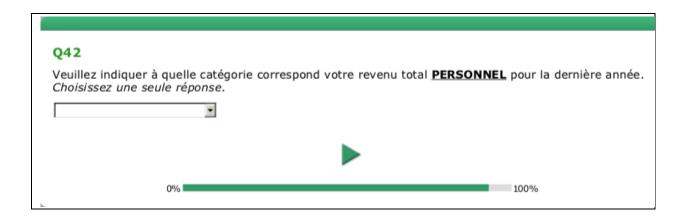


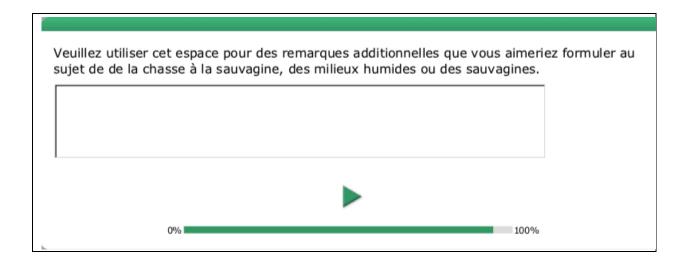












Nous vous remercions de votre temps et de vos efforts. Nous vous remercions d'avoir manifesté votre intérêt à l'égard de cette étude. Vos réponses seront enregistrées lorsque vous procéderez à l'écran suivant.



Nous vous remercions d'avoir manifesté votre intérêt à l'égard de cette étude. Plusieurs de nos questions portent sur les expériences actuelles en matière de chasse à la sauvagine, donc à l'heure actuelle, nous mettons uniquement l'accent sur les chasseurs de sauvagine actifs. Nous espérons que vous aurez l'occasion de continuer à chasser à l'avenir.



### Note: When respondents take the survey in regular mode this page will not be displayed. Respondents will be redirected to the link below: http://nawmp.wetlandnetwork.ca/

# **Appendix B**

North American Waterfowl Hunting Non-Response Questionnaire

# **National Survey of Waterfowl Hunters**



This project was undertaken with the financial support of:



- 3. How many of the last 5 years have you hunted WATERFOWL? (Circle one number below or check the box for "0".)
   1 2 3 4 5 Years 0 (None) --- GO TO QUESTION 17
- 4. Over the last five years, about how many days did you usually hunt WATERFOWL in a year? (Check one)
  - 5 days or less 11 to 20 days More than 30 days
  - O 6 to 10 days 21 to 30 days
- 5. Under what circumstances do you typically go hunting? (Check one.)
  - When I plan the hunt myself
  - When someone else invites me
  - Both when I plan the hunt or someone else invites me
- 6. In which province/state have you hunted ducks most over the last 5 years?

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(Circle one number for each.)	Not at all	noorant S.	Important	Moderater	Very	Extremely Important
Diving ducks (scaup/bluebills, canvasback, redheads, etc.)	1		2	3	4	5
Mallards	1		2	3	4	5
Pintails	1		2	3	4	5
Other dabbling ducks (teal, wood ducks, gadwall, etc.)	1		2	3	4	5
Geese	1		2	3	4	5
. Please indicate how much of a problem the following are in the province where you hunt ducks most. (Circle one number for each <i>OR</i> check the ' <i>Don't Know</i> ' box.)	Not at a	Slight p	Moderate Problem	Severe 2	Very Sey	Don't Know
Crowding at hunting areas	1	2	3	4	5	0
Hunting pressure	1	2	3	4	5	0
Interference from other hunters	1	2	3	4	5	0
Conflict with other hunters in places I hunt	1	2	3	4	5	0
Lack of public places for waterfowl hunting	1	2	3	4	5	U
. In the province where you hunt ducks most often, how satisfied or dissatisfied are you with each of the following? (Circle one number for each.)		Very	Somewhed Satistical	Neutro	Somewh	Satisfied Very Dissatisfi
dissatisfied are you with each of the following? (Circle one number		1 Non 1	Somewher S	s Neutro	Somewh 4	Satisfied  Pery Dissatisti
dissatisfied are you with each of the following? (Circle one number for each.)				Palisi. 3 3	In Somewhy	
dissatisfied are you with each of the following? (Circle one number for each.)  The number of ducks you see during the season.		1	2	3	4	5
dissatisfied are you with each of the following? (Circle one number for each.)  The number of ducks you see during the season.  Number of ducks you harvest during the season.		1	2	3	4	5
dissatisfied are you with each of the following? (Circle one number for each.)  The number of ducks you see during the season.  Number of ducks you harvest during the season.  The number of days in the duck season.		1 1 1	2 2 2	3 3	4 4	5 5 5
dissatisfied are you with each of the following? (Circle one number for each.)  The number of ducks you see during the season.  Number of ducks you harvest during the season.  The number of days in the duck season.  The number of ducks in the daily limit.		1 1 1 1	2 2 2 2	3 3 3 3	4 4 4	5 5 5 5
dissatisfied are you with each of the following? (Circle one number for each.)  The number of ducks you see during the season.  Number of ducks you harvest during the season.  The number of days in the duck season.  The number of ducks in the daily limit.  Your overall hunting experience.		1 1 1 1	2 2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5
dissatisfied are you with each of the following? (Circle one number for each.)  The number of ducks you see during the season.  Number of ducks you harvest during the season.  The number of days in the duck season.  The number of ducks in the daily limit.  Your overall hunting experience.  The number of ducks typically present during the hunting season.		1 1 1 1 1 1 1	2 2 2 2 2 2 2	3 3 3 3 3 3	4 4 4 4 4 4	5 5 5 5 5 5 5

1	2 3	4	5	6	DUC	(S n	ır 🔘 I	i'll hunt	t with ar	าง ธizศ	e dail	v bad	limit	
•		•								,		9		
12. What is th	e minimum	number	of da	ays in a	waterfow	l hun	ting s	easor	ı you v	voulc	laco	ept l	befo	re yo
would no	longer hunt	t ducks?	(Cir	cle one	number b	elow	or ch	eck th	ne box	.)				-
10	15	20 2	5	30	35 40	4	<b>1</b> 5	50	55	60		Days	3	
		(	or (	] I'll hun	t with any s	easor	n length	1						
10 Danier	ina a vila a da la a				la 4 / a a   4						l le	-10 /	Ob -	-l
13. Do you pr	imarily take	e day trip	s or	overnig	nvmuiti-c	ay tri	ıps wn	ien yc	ou wate					
O Pr	imarily day tri	rips	<u>U</u>	Primarily	overnight	or muli	ti-day tı	rips		Both	1 abo	ut eq	ually	
14. Please inc	dicate where	e you do	mos	t of you	r waterfo	wl hu	nting?	? (Che	eck one	e.)				
_	nd or waters	-		•			J	,		,				
_	roperty owne	ed by you,	your f	amily or i	n partnersh	nip witl	h some	one el	se					
	roperty owne		•	-	•	•				o hun	t for f	free		
	roperty you le	-				. 3	, -					-		
		•												
give the fo	h priority sh ollowing wh e number fo	nen settir	ng an				_		<b>5</b>		<b>м</b> о> .	ler <sub>e</sub> .	9,6	H
	ollowing wh	nen settir	ng an				_		6	Very	mo> mo>	Modera	High ette	VeryHiz
give the fo	ollowing wh e number fo	nen settir or each.)	ng an				_		6	1	<b>mo</b> 2	C Modera	46jH 4	2 <b>Very</b> Hiz.
give the fo (Circle on	ollowing when number for gest bag limits	nen settir or each.)	ng an				_		5					
give the for (Circle on Having the large	ollowing when number for the number	nen settir or each.) s possible s possible.	ng an	nual du	ck huntin		_		3	1	2	3	4	5
give the for (Circle on Having the larger Having the longer Having	pollowing when number for gest bag limits gest seasons ent season le	nen settir or each.) s possible s possible. engths for o	ng an	nual du	<b>ck hunti</b> n	g reg	_		5	1	2	3	4	5
give the for (Circle on Having the large Having the lon Avoiding differ	pollowing when the number for the nu	nen settir or each.) s possible s possible. engths for c	differe	nual du ent duck s diving du	<b>ck hunti</b> n	g reg	_			1 1 1	2 2 2	3 3 3	4 4 4	5 5 5
give the for (Circle on Having the large Having the lon Avoiding differ Maintaining un	pollowing when the number for the number for the number for the number of spential pollowing the number of spential pollowing number	nen settir or each.) s possible s possible. engths for our traditions ecies-spec	differe	nual du ent duck s diving du ag limits.	ck hunting	g reg	_		3	1 1 1 1	2 2 2 2	3 3 3 3	4 4 4 4	5 5 5 5
Having the large Having the lon Avoiding differ Maintaining un	pollowing when the number for the number for the number for the number of spential pollowing the number of spential pollowing number	nen settir or each.) s possible s possible. engths for our traditions ecies-spec	differe	nual du ent duck s diving du ag limits.	ck hunting	g reg	_			1 1 1 1	2 2 2 2 2 2	3 3 3 3 3	4 4 4 4	5 5 5 5 5
give the for (Circle on Having the large Having the lon Avoiding differ Maintaining und Reducing the Having as large	pollowing when the number for the number for the number for the number of species of mallard of the number of species of the number of the n	nen settir or each.) s possible s possible. engths for our traditions ecies-special drake bag	differe	ent duck s diving du ag limits. as possit	ck hunting	g reg	ulatio	ns?		1 1 1 1 1 1	2 2 2 2	3 3 3 3 3	4 4 4 4 4	5 5 5 5 5
Having the large Having the large Having the lon Avoiding differ Maintaining und Reducing the Having as large Having Avoid Having as large Having Avoid H	gest bag limite gest seasons ent season le nique hunting number of spe e of mallard of terested in I	nen settir or each.) s possible s possible. engths for c traditions ecies-spec drake bag knowing much yo	differe (e.g., cific be	ent duck s diving du ag limits. as possib much w agree o	ck hunting species. ck hunting ble. vaterfowl r agree w	g reg	ng me	eans towing	o you.	1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3	4 4 4 4 4	5 5 5 5 5
Having the large Having the large Having the lon Avoiding differ Maintaining und Reducing the Having as large Having Having Avoid Having Having Avoid Hav	gest bag limite gest seasons ent season le nique hunting number of spe e of mallard of dicate how its about you	nen settir or each.) s possible s possible. engths for c traditions ecies-spec drake bag knowing much yo	differe (e.g., cific be	ent duck s diving du ag limits. as possib much w agree o	ck hunting species. ck hunting ble. vaterfowl r agree w	g reg	ng me	eans towing	o you.	1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3	4 4 4 4 4	5 5 5 5 5
Having the large Having the large Having the lon Avoiding differ Maintaining under Reducing the Having as large Having Avoid Havi	gest bag limite gest seasons ent season le nique hunting number of spe e of mallard of dicate how its about you	nen settir or each.) s possible s possible. engths for c traditions ecies-spec drake bag knowing much yo	differe (e.g., cific be	ent duck s diving du ag limits. as possib much w agree o	ck hunting species. ck hunting ble. vaterfowl r agree w	g reg	ng me	eans towing	o you.	1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3	4 4 4 4 4	5 5 5 5 5
Having the large Having the large Having the lon Avoiding differ Maintaining und Reducing the Having as large Having Hav	gest bag limits gest seasons ent season le nique hunting number of spe e of mallard of derested in la dicate how it is about you or each.)	nen settir or each.) s possible s possible. engths for our traditions ecies-special drake bag knowing much your involve	differe (e.g., cific ballimits	ent duck s diving du ag limits. as possit much w agree on it in wat	ck hunting ck hunting cle waterfowl r agree w	g reg	ng me	eans towing	o you.	1 1 1 1	2 2 2 2	3 3 3 3 3	4 4 4 4 4	5 5 5 5 5
Having the large Having the large Having the lone Avoiding differ Maintaining under Having as large Having Having as large Having	gest bag limits gest seasons ent season le hique hunting number of spe e of mallard of derested in I dicate how it is about you or each.)	s possible s possible. In traditions ecies-specificate bag much your involvements of the most of the m	ng an   (e.g., limits  how u dis emer	ent duck s diving du ag limits. as possit much w agree on at in wat	species. lock hunting ble. lock hunting raterfowl r agree w lerfowl hu	g reg	ng me e follo g. (Circ	eans towing	o you.	1 1 1 1 1 1	2 2 2 2 2 2 3 3 5 6 6 7 6 6 9 7 6 6 9 7 6 6 9 7 6 6 9 7 6 9	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	4 4 4 4 4	5 5 5 5 5 5
Having the large Having the large Having the large Having the large Having differ Maintaining und Reducing the large Having as large Having as large Having as large Material Material Having as large Material Having as large Having as large Having as large Material Having as large Material Having as large Having as large Having as large Material Having as large Material Having as large Having as	gest bag limited gest seasons ent season lendique hunting number of species of mallard control of the season terested in ladicate how it is about your each.)	s possible s possible. engths for a traditions ecies-speciarake bag much your involve the most a prime way come	differe (e.g., cific ballimits how u discement	ent duck s diving du ag limits. as possib  much w agree on it in wat	species. lock hunting ble. lock hunting raterfowl r agree w lerfowl hu	g reg	ng me e follo g. (Circ	eans towing	o you.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	5 5 5 5 5 5 5 5 5
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17. A person can think of themselves in a variety of ways. On a scale of "1" to "7", where "1" is "not at all" and "7" is "completely", how much would you identify yourself as the following? (Circle one number for each.)

	Not at All		M	loderate	ly	(	Completely
Birdwatcher	1	2	3	4	5	6	7
Duck Hunter	1	2	3	4	5	6	7
Goose Hunter	1	2	3	4	5	6	7
Other hunter	1	2	3	4	5	6	7
Conservationist	1	2	3	4	5	6	7

		months, have you participated in the following nature-based activities? Please che
	or No for	Spending time in nature away from home ( <i>e.g.</i> , picnicking, relaxing in nature, camping, hiking)
	○ No	Viewing wildlife (e.g., wildlife watching, bird watching, bird feeding, wildlife photography)
Yes	○ No	Learning about nature (e.g., attending festivals or lectures, visiting a nature center)
☐ Yes	◯ No	Backyard/at-home nature activities (e.g., gardening, landscaping)
☐ Yes	☐ No	Fishing
O Yes	☐ No	Hunting other migratory birds (doves, woodcock, rail, etc.)
☐ Yes	☐ No	Hunting other game birds (grouse, pheasants)
	○ No	Hunting all other game animals (deer, elk, rabbit, etc.)
O Yes	☐ No	Watching birds at my home
	◯ No	Feeding birds at my home
☐ Yes	☐ No	Watching birds away from my home
	☐ No	Photographing or filming birds
O Yes	○ No	Counting/monitoring birds (e.g. Christmas or Backyard Bird Count)
	☐ No	Recording the birds you see on a list, online or on paper
O Yes	☐ No	Installing or maintaining nest boxes for birds

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19. In wha	t year were you born? 19	9	20	0. Are you	Male	☐ Fema
O 8		ucation that you have ome University/College niversity/College Degree	Grad	d? (Please cl duate degree er (specify):	heck one.)	
22. Do you	own land in a rural area	•		•	AC	CRES
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O I dia	let us know why you ch dn't receive the invitation in the on't have access to the internative internet access, but could	he mail et	I don't	online earlied like to answer of hunt ducks or got think the surve	questions onli geese	ine

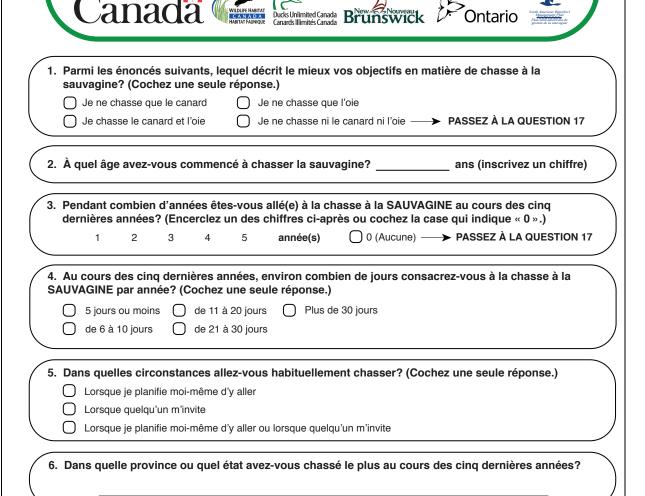


Version: May 2, 2017 Page 5 of 5

# Étude nationale sur les chasseurs de sauvagine



Ce projet a été réalisé avec le soutien financier de :



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suivants : (Cochez une réponse pour cha	e chasserles anin aque énoncé.)	naux	Pas impo	Légère	Mourant	Important Tree	Simportant Extrêment
Canards plongeurs (fuligules, fuligules à dos blanc,	fuligules à tête roug	e, <i>etc</i> .)	1	2	3		5
Canards colverts			1	2	3	3 4	5
Canards pilets			1	2	3	3 4	5
Autres canards barboteurs (sarcelles, canards bran	chus, canards chipe	aux, etc	) 1	2	3	3 4	5
Oie			1	2	3	3 4	5
Veuillez indiquer l'ampleur des problèmes province/l'état où vous chassez le plus le réponse pour chaque énoncé.)	qui suivent dans canard. (Cochez ι		broblément	Modérémes	Assez due	Très Très	
Encombrement dans les sites de chasse		1	2	3	·	5	0
Pression exercée par la chasse Interférence d'autres chasseurs		1	2	3	4	5	Ü
	ahaaa	1	2	3	4	5	0
Conflits avec d'autres chasseurs aux endroits où je Manque d'endroits publics pour la chasse à la sauv		1	2	3	4	5 5	
Dans la province/l'État où vous chassez le			hez	Très Satisfair. P.	Satisfait	a, S	ment t etisfe:
quel est votre niveau de satisfaction à l'ég une réponse pour chaque énoncé.)	•			Seg	\$ 5	sutr. Pati	es ins
une réponse pour chaque énoncé.)	·						nsatisfait Très insatisf
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veision. 2 mai 2017

1 2 3 4 5 6 <b>CANARDS ou</b> Je chasserai quel que so	it le ma	ximun	n de p	prises	par
<ol><li>Quel est le nombre minimal de jours pendant une saison de chasse à la accepteriez avant de décider de ne plus chasser le canard? (Encerclez u</li></ol>					
10 15 20 25 30 35 40 45 50 55	60		jours		ia cc
ou ☐ Je chasserai quelle que soit la durée de la saison			jours		
Je chasseral quelle que soit la durée de la saison	•				
3. Lorsque vous partez à la chasse à la sauvagine, effectuez-vous principa	lemen	t des	dép	lacer	nen
d'une journée ou des voyages de deux jours ou plus? (Cochez une seul					
Principalement des Principalement des voyages	L'un ou			eu	
déplacements d'une journée de deux jours ou plus	près é	gaiem	ent		
4. À quel endroit chassez-vous le plus la sauvagine? (Cochez une seule ré	ponse	.)			
Terres ou plans d'eau publics		,			
Propriété privée détenue par vous, votre famille ou en partenariat avec une autre	ersonn	е			
Propriété privée détenue par un ami ou un autre propriétaire qui vous donne la pe	missior	n d'y c	hass	er sar	ns fra
Propriété privée que vous louez ou à l'égard de laquelle vous payez des frais pour	v chas	ser			
5. Quelle priorité les organismes provinciaux ou territoriaux et fédéraux devraient-ils accorder à ce qui suit lorsqu'ils établissent les règlements de la chasse annuelle à la sauvagine? (Veuillez établir la priorité de	4	raible 5/e	réré	, % , %	s é/eu
devraient-ils accorder à ce qui suit lorsqu'ils établissent les règlements de la chasse annuelle à la sauvagine? (Veuillez établir la priorité de chacun en cochant une case.)		Faible		Élevée	Ž,
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17. Une personne peut se percevoir de nombreuses façons. Sur une échelle de « 1 » à « 7 », où « 1 » correspond à « Pas du tout » et « 7 » correspond à « Tout à fait », dans quelle mesure vous identifiez-vous à ce qui suit?

	Pas du to	ut	M	lodéréme	nt	Te	out à fait
Ornithologue	1	2	3	4	5	6	7
Chasseur de canard	1	2	3	4	5	6	7
Chasseur d'oie	1	2	3	4	5	6	7
Chasseur d'autre gibier	1	2	3	4	5	6	7
Conservationniste	1	2	3	4	5	6	7

		2 derniers mois, avez-vous participé aux activités de plein air qui suivent? <i>Veuillez</i> ou « <i>Non</i> » <i>pour chacune</i> .
Oui	○ Non	Passer du temps en plein air à l'extérieur du domicile (p. ex., pique-niques, relaxation en nature, camping, randonnée)
Oui	○ Non	Observation de la faune (p. ex., observation d'animaux, ornithologie, nourrir des oiseaux, photographie de la faune)
Oui	Non	Apprentissage au sujet de la nature (p. ex., participation à des festivals ou à des conférences, visites de centres de la nature)
Oui	○ Non	Activités en nature à domicile (p. ex., jardinage et aménagement paysager)
Oui	○ Non	Pêche
Oui	○ Non	Chasse d'autres oiseaux migratoires (tourterelles, bécasses, râles, etc.)
Oui	○ Non	Chasse d'autres gibiers (gélinottes/tétras, faisans, etc.)
Oui	○ Non	Chasse d'autres animaux (chevreuils, wapitis, lièvres, etc.)
Oui	○ Non	Observer des oiseaux à mon domicile
Oui	○ Non	Nourrir des oiseaux à mon domicile
Oui	○ Non	Observer des oiseaux à l'extérieur de mon domicile
Oui	○ Non	Photographier ou filmer des oiseaux
Oui	○ Non	Recenser ou surveiller des oiseaux (p. ex., recensement des oiseaux de Noël ou dans la cour)
Oui	○ Non	Faire le suivi des oiseaux que vous voyez sur une liste, en ligne ou sur papier
Oui	Non	Installer ou entretenir des nichoirs pour oiseaux

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19.	En quelle année êtes-vous né(e)? 19	20. Êtes-vous?  Un homme  Une femr
	Quel est le plus haut niveau de scolarité que	
	<ul> <li>Quelques années d'études secondaires</li> <li>Études secondaires</li> <li>Quelques années d'études universitaires ou collégiales (pas de diplôme)</li> </ul>	Diplôme universitaire ou collégial     Diplôme d'études supérieures     Autres:
22.	de banlieue)?	région rurale (à l'extérieur d'une zone urbaine ou
	Non ○ Oui → Dans l'affirmative, qu propriétaire?	el est le nombre total d'acres dont vous êtes ACRES
23.	Laquelle de ces catégories décrit le mieux l'é	endroit où vous vivez maintenant? (Cochez une rép
	Grand centre urbain (population de 500 000 hab	oitants ou plus)
	Centre urbain moyen (population de 50 000 à 49	99 999 habitants)
	Petite ville (population de 10 000 à 49 999 habit	ants)
	Petit village (population de 2 000 à 9 999 habita	nts)
	Région rurale (population de moins de 2 000 ha	bitants)
24.	Veuillez indiquer à quelle catégorie correspo mois. (Cochez une réponse)	nd votre revenu total personnel pour les 12 dernie
		0 \$ à 99 999 \$
	de 25 000 \$ à 49 999 \$ de 100 00	00 \$ à 149 999 \$
	de 50 000 \$ à 74 999 \$ de 150 00	00 \$ à 199 999 \$ 300 000 \$ ou plus
25.	Veuillez nous dire la raison pour laquelle vou plus tôt. (Cochez tous les choix qui s'applique	us avez choisi de ne pas remplir le sondage en lign uent.)
$\subset$	Je n'ai pas reçu l'invitation par courriel	Je n'aime pas répondre à des questions en ligne
Ć	) Je n'ai pas accès à Internet	Je ne chasse pas le canard ou l'oie
C	J'ai accès à Internet, mais je n'ai pas été en mesure d'accéder au site Web	Je ne croyais pas que cette étude me concernai
	) Je n'ai pas eu le temps de participer à l'étude plus	tôt



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# Appendix C Respondent Contact Letters



2039 Robertson Road, Suite 247, Ottawa, ON K2H 8R2 2039 chemin Robertson, bureau 247, Ottawa (ON) K2H 8R2 T: 613-722-2090 | F: 613-722-3318 | www.whc.org

#### Celebrating Over 30 Years of Wildlife Habitat Conservation Célébrons plus de 30 ans de conservation des habitats fauniques

Dear Canadian Hunter,

You are receiving this letter because you agreed to share your contact information with Wildlife Habitat Canada (WHC) when you purchased your Migratory Game Bird Hunting (MGBH) Permit.

Through the purchase of your MGBH Permit, you contribute to waterfowl and waterfowl habitat conservation across Canada. The revenue generated from the Canadian Duck Stamp (\$8.50 from every Permit sold) is allocated to WHC, a not-for-profit conservation organization. Through WHC's grant program, Canadian Duck Stamp funds are invested in habitat conservation projects and hunter education and recruitment projects across Canada.

One such project that was supported by Canadian Duck Stamp funds is a research study by Dr. Howard Harshaw, Assistant Professor at the University of Alberta, titled, "Understanding the dynamics of people's interactions with waterfowl: Assessing hunters' preferences for waterfowl management in Canada." This study is part of a larger North American initiative to examine public interactions with waterfowl in order to understand the dynamics of people's interactions with waterfowl.

The results of this study will better inform the management and planning of waterfowl and wetlands across jurisdictions and are expected to influence national (and international) policy and management strategies for conservation and stewardship.

Further information on the study is enclosed.

We strongly encourage you to consider completing and returning the enclosed survey for Dr. Harshaw's research study. Please note that your participation is entirely voluntary and that your contact information has not been shared by WHC for the purposes of this study.

Best regards,

Cameron Mack **Executive Director** Wildlife Habitat Canada





2039 Robertson Road, Suite 247, Ottawa, ON K2H 8R2 2039, chemin Robertson, pièce 247, Ottawa (ON) K2H 8R2 T: 613-722-2090 | F: 613-722-3318 | www.whc.org

#### Celebrating Over 30 Years of Wildlife Habitat Conservation Célébrons plus de 30 ans de conservation des habitats fauniques

Cher chasseur,

Cette lettre vous est adressée puisque vous avez accepté de communiquer vos coordonnées à Habitat faunique Canada (HFC) au moment d'acheter votre permis de chasse aux oiseaux migrateurs considérés comme gibier.

Grâce à l'achat de votre permis de chasse, vous contribuez à la protection de la sauvagine et de son habitat, et ce dans l'ensemble du Canada. Les recettes générées par le Timbre du canard canadien (8,50 \$ par permis vendu) sont versées à HFC, une organisation sans but lucratif vouée à la conservation. Dans le cadre du programme de subvention d'HFC, les fonds découlant du Timbre du canard canadien sont investis dans des projets de conservation de l'habitat ainsi que dans des projets de formation et de recrutement des chasseurs partout au Canada.

L'étude intitulée « Understanding the dynamics of people's interactions with waterfowl: Assessing hunters' preferences for waterfowl management in Canada »<sup>1</sup>, menée par Monsieur Howard Harshaw (Ph. D.), professeur adjoint à l'Université de l'Alberta, compte parmi les projets financés par les fonds du Timbre du canard canadien. Cette étude s'inscrit dans une recherche plus large menée pour examiner les interactions de la population avec la sauvagine afin d'en saisir la dynamique.

Les résultats de cette étude guideront la gestion et la planification de la sauvagine et des terres humides pour l'ensemble des territoires et devraient influer sur les politiques et les stratégies de gestion nationales (et internationales) en matière de conservation et d'intendance.

Consultez le document ci-joint pour obtenir des précisions sur l'étude.

Nous vous encourageons fortement à remplir et à retourner le sondage ci-joint à l'intention de l'étude menée par Monsieur Harshaw. Votre participation est entièrement volontaire. Soyez avisé qu'HFC n'a pas communiqué vos coordonnées aux fins de cette étude.

Veuillez agréer mes salutations distinguées.

Cameron Mack Directeur exécutif Habitat faunique Canada

PATRON OF WILDLIFE HABITAT CANADA

His Excellency the Right Honourable David Johnston C.C., C.M.M., C.O.M., C.D. Governor General of Canada



PRÉSIDENT D'HONNEUR D'HABITAT FAUNIQUE CANADA Son Excellence le très honorable David Johnston C.C., C.M.M., C.O.M., C.D. Gouverneur général du Canada

<sup>&</sup>lt;sup>1</sup> Comprendre la dynamique des interactions de la population avec la sauvagine : évaluer les préférences des chasseurs entourant la gestion de la sauvagine au Canada [Traduction libre]



# NATIONAL SURVEY OF WATERFOWL HUNTERS CONSENT INFORMATION

Dr. Howard Harshaw Associate Professor Faculty of Physical Education & Recreation University of Alberta (780) 492-6821

Greetings,

I am asking for your help in an important study about waterfowl hunting and wetlands conservation in Canada. Your name was randomly selected from a list of people who had purchased a 2016 Canadian Wildlife Habitat Conservation Stamp.

#### **PURPOSE**

This project will document patterns of hunting participation across Canada. We are examining the factors that contribute to hunting participation, lapse, and non-participation. The results of this survey will inform waterfowl and wetlands managers, and organizations dedicated to supporting waterfowl and wetlands conservation about the motivations of waterfowl hunters, constraints that limit hunting participation, and strategies that can better support waterfowl hunters. This survey asks questions about:

- · Your participation in waterfowl hunting;
- Your attitudes about the environment and preferences for waterfowl and wetland conservation policies:
- What waterfowl hunters most desire from waterfowl and wetland management;
- Waterfowl hunters' knowledge and support for waterfowl and wetlands conservation.

This project is funded by Wildlife Habitat Canada, Ducks Unlimited Canada, Environment and Climate Change Canada, the Government of Ontario, the Government of New Brunswick, and the Alberta NAWMP Partnership. Overall results will be shared publicly. It is anticipated that the survey results will identify and support strategies for the recruitment and retention of waterfowl hunters, including approaches for reducing constraints to hunting participation and to better meeting hunter expectations.

The results and analysis of this study will be publicly available in the late Fall of 2017 at:

www.hd-research.ca

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#### STUDY PROCEDURES

The web-based survey will take about 20 to 30 minutes to complete. Please take your time as you consider your answers to the questions. Remember, there are no right or wrong answers. Please return the completed survey by clicking on the "Submit" button at the end of the web-based survey.

#### **RISKS AND BENEFITS**

There are no foreseeable risks to you associated with research. You are you unlikely to experience any discomfort as a result of this research. Although participation in this research will not provide direct benefits to you, it is anticipated that the results of this research will help us to understand why people choose to hunt or not to hunt waterfowl.

#### CONFIDENTIALITY

Your identity will be kept strictly confidential. You will not be identified by name in any reports of the completed study. All documents will be identified only by a code number and kept in a locked filing cabinet and a password protected computer file. The data that is collected in this research project will be kept for future use regarding public opinions and beliefs about waterfowl and wetlands management. Individual responses will not be made available to anyone outside the research team.

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If you have any questions about the research, or would like further information, please do not hesitate to contact Dr. Harshaw at the phone number listed at the top of the first page. The plan for this study has been reviewed for its adherence to ethical guidelines by a *Research Ethics Board* at the *University of Alberta*. For questions regarding participant rights and ethical conduct of research, please contact the *Research Ethics Office* at (780) 492-2615. If you wish to opt out of this survey, please contact *Wildlife Habitat Canada* at (613) 722-2090.

#### **CONSENT**

Participation in this study is completely voluntary, and you may refuse to participate at any time without penalty. You may skip any question if you do not feel comfortable answering it, though we encourage you to complete all questions if possible. By completing and submitting this survey, you grant your consent to participate in this study. As the information that will be collected in this survey is anonymous, we will not be able to attribute any comments to individuals; as a result, the information that you provide cannot be withdrawn after you have submitted your survey.

Thank you very much for helping with this important study.

Sincerely.

Howard Harshaw

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# ÉTUDE NATIONALE SUR LES CHASSEURS DE SAUVAGINE RENSEIGNEMENTS CONCERNANT LE CONSENTEMENT

M. Howard Harshaw, *Ph. D.*Professeur agrégé
Faculté d'éducation physique et sportive
Université de l'Alberta
780-492-6821

Bonjour,

Je vous écris pour solliciter votre participation à une importante étude sur la chasse à la sauvagine et la conservation des terres humides au Canada. Votre nom a été sélectionné au hasard à partir d'une liste de personnes qui ont acheté le *Timbre sur la conservation des habitats fauniques du Canada de 2016*.

**BUT** Ce projet vise à documenter les modèles de comportement de la participation à la chasse dans l'ensemble du Canada. Nous examinons les facteurs qui contribuent à la participation à la chasse, à la non-participation et au report de la participation. Les résultats de cette étude guideront les gestionnaires de la sauvagine et des terres humides, ainsi que les organisations dédiées à la conservation de la sauvagine et des terres humides, en les renseignant sur les facteurs qui motivent les chasseurs de sauvagine, sur les obstacles à leur participation à la chasse, ainsi que sur les stratégies pouvant mieux appuyer les chasseurs de sauvagine. Les questions de l'étude portent sur les aspects suivants :

- votre participation à la chasse à la sauvagine;
- vos attitudes à l'égard de l'environnement et vos préférences liées aux politiques en matière de conservation de la sauvagine et de terres humides;
- les attentes les plus importantes des chasseurs envers les gestionnaires de la sauvagine et des terres humides:
- les connaissances des chasseurs de sauvagine et leur appui à la conservation de la sauvagine et des terres humides.

Ce projet est financé par Habitat faunique Canada, Canards illimités Canada, Environnement et Changement climatique Canada, le gouvernement de l'Ontario, le gouvernement du Nouveau-Brunswick et le Partenariat du PNAGS de l'Alberta. Les résultats généraux recueillis seront diffusés publiquement. Il est prévu que les résultats de cette étude aideront à établir et à appuyer des stratégies pour le recrutement et la rétention de chasseurs de sauvagine, y compris des approches visant à réduire les obstacles à la participation à la chasse et à mieux répondre aux attentes des chasseurs.

Pour accéder au sondage, rendez-vous à : www.canada-waterfowl-survey.ca

Votre code d'accès est : x x x x x x x x

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Les résultats et l'analyse de cette étude seront publiés à l'automne 2017 à :

### www.hd-research.ca

**PROCÉDURES DE L'ÉTUDE** Il vous faudra de 20 à 30 minutes pour remplir ce sondage en ligne. Veuillez prendre le temps de bien considérer vos réponses aux questions. Rappelez-vous qu'il n'y a pas de bonnes ou de mauvaises réponses. Lorsque vous aurez terminé, veuillez envoyer le formulaire en cliquant sur le bouton « Soumettre » qui se trouve à la fin du sondage en ligne.

**RISQUES ET AVANTAGES** Aucun risque prévisible n'est associé à la participation à cette recherche. Il est peu probable que vous éprouviez un inconfort à la suite de votre participation à cette étude. Bien que votre participation à cette recherche ne vous procure pas des avantages directs, il est prévu que les résultats nous aideront à comprendre pourquoi les personnes choisissent (ou non) de chasser la sauvagine.

**CONFIDENTIALITÉ** Votre identité demeurera strictement confidentielle. Votre nom ne figurera pas dans les rapports relatifs à l'étude. Tous les documents seront identifiés uniquement par un code numérique et conservés dans un classeur sous clé et dans un dossier informatique protégé par un mot de passe. Les données recueillies pour cette étude seront conservées aux fins d'utilisation future concernant les opinions et les attitudes du public à propos de la gestion de la sauvagine et des terres humides. Personne en dehors de l'équipe de recherche n'aura accès aux réponses individuelles.

**PERSONNES-RESSOURCES** Si vous avez des questions au sujet de cette recherche ou si vous souhaitez obtenir des renseignements supplémentaires, n'hésitez pas à communiquer avec H. Harshaw, *Ph. D.* au numéro de téléphone qui apparaît en haut de la première page. Le *Comité de l'éthique de la recherche de l'Université de l'Alberta* a analysé le plan de cette étude pour veiller à ce qu'il respecte les lignes directrices en matière d'éthique. Si vous avez des questions au sujet des droits des participants et du respect des principes relatifs à l'éthique de la recherche, veuillez communiquer avec le *Bureau de l'éthique de la recherche* au **780-492-2615**. Si vous souhaitez ne pas participer à ce sondage, veuillez communiquer avec *Habitat faunique Canada* au **613-722-2090**.

**CONSENTEMENT** La participation à cette étude est tout à fait volontaire, et vous pouvez refuser d'y participer sans subir de pénalité. Vous pouvez sauter une question si vous n'êtes pas à l'aise d'y répondre, mais nous vous invitons à répondre à toutes les questions, si possible. Lorsque vous remplissez et soumettez ce sondage, vous consentez à participer à cette étude. Comme l'information sera recueillie de façon anonyme dans le cadre de cette recherche, nous ne pourrons attribuer des commentaires à des personnes en particulier et c'est pourquoi vous ne pourrez retirer vos contributions une fois que vous aurez soumis vos réponses.

Je vous remercie grandement de votre collaboration à cette importante étude.

Je vous prie d'agréer mes salutations distinguées.

Howard Harshaw

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# NATIONAL SURVEY OF WATERFOWL HUNTERS CONSENT INFORMATION

Dr. Howard Harshaw
Associate Professor
Faculty of Physical Education & Recreation
University of Alberta
(780) 492-6821

Greetings,

Several days ago, I sent you a link to a questionnaire that asked about your participation in, and attitudes about, waterfowl hunting and wetlands conservation. The feedback from people that have already responded have included a range of comments and ideas about waterfowl and wetlands conservation. I think that the results are going to be helpful to waterfowl and wetlands managers.

The study is drawing to a close. I am writing again because of the importance that your questionnaire has in helping us to get accurate results. Your name was randomly selected from a list of people who had purchased a 2016 Canadian Wildlife Habitat Conservation Stamp. I need to hear from more people like you so that I can be sure that the study results will fairly represent Canadian waterfowl hunters.

#### **PURPOSE**

This project will document patterns of hunting participation across Canada. We are examining the factors that contribute to hunting participation, lapse, and non-participation. The results of this survey will inform waterfowl and wetlands managers, and organizations dedicated to supporting waterfowl and wetlands conservation about the motivations of waterfowl hunters, constraints that limit hunting participation, and strategies that can better support waterfowl hunters. This survey asks questions about:

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You can access the survey at: www.canada-waterfowl-survey.ca

Your Access Code is: xxxxxxxx

Version April 12, 2017 Page 1 of 2

The results and analysis of this study will be publicly available in the late Fall of 2017 at:

## www.hd-research.ca

#### STUDY PROCEDURES

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Thank you very much for helping with this important study.

Sincerely,

Howard Harshaw

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# ÉTUDE NATIONALE SUR LES CHASSEURS DE SAUVAGINE RENSEIGNEMENTS CONCERNANT LE CONSENTEMENT

M. Howard Harshaw, *Ph. D.*Professeur agrégé
Faculté d'éducation physique et sportive
Université de l'Alberta
780-492-6821

Bonjour,

Il y a plusieurs jours, je vous ai envoyé un lien menant à un questionnaire visant à obtenir de l'information sur votre participation et vos attitudes relatives à la chasse à la sauvagine et à la conservation des terres humides. La rétroaction des personnes qui ont déjà répondu comprenait un éventail de commentaires et d'idées sur la conservation de la sauvagine et des terres humides. J'estime que les résultats de cette étude seront utiles aux gestionnaires de la sauvagine et des terres humides.

L'étude tire maintenant à sa fin. Je vous écris à nouveau en raison de l'importance de vos réponses à ce questionnaire. Votre contribution nous aidera à obtenir des résultats précis. Votre nom a été sélectionné au hasard à partir d'une liste de personnes qui ont acheté le *timbre sur la conservation des habitats fauniques du Canada de 2016.* J'ai besoin de l'aide d'un plus grand nombre de personnes comme vous, afin de veiller à ce que les résultats de cette étude représentent de façon juste les points de vue des chasseurs de sauvagine.

**BUT** Ce projet vise à documenter les modèles de comportement de la participation à la chasse dans l'ensemble du Canada. Nous examinons les facteurs qui contribuent à la participation à la chasse, à la non-participation et au report de la participation. Les résultats de cette étude guideront les gestionnaires de la sauvagine et des terres humides, ainsi que les organisations dédiées à la conservation de la sauvagine et des terres humides, en les renseignant sur les facteurs qui motivent les chasseurs de sauvagine, sur les obstacles à leur participation à la chasse, ainsi que sur les stratégies pouvant mieux appuyer les chasseurs de sauvagine. Les questions de l'étude portent sur les aspects suivants :

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Votre code d'accès est : x x x x x x x x

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Je vous remercie grandement de votre collaboration à cette importante étude.

Je vous prie d'agréer mes salutations distinguées.

Howard Harshaw

Version du 12 avril 2017

Page 2 de 2



# NATIONAL SURVEY OF WATERFOWL HUNTERS CONSENT INFORMATION

Dr. Howard Harshaw Associate Professor Faculty of Physical Education & Recreation University of Alberta (780) 492-6821

Greetings,

Just over a week ago, I sent you a link to a questionnaire that asked about your participation in, and attitudes about, waterfowl hunting and wetlands conservation. The feedback from people that have already responded have included a range of comments and ideas about waterfowl and wetlands conservation. I think that the results are going to be helpful to waterfowl and wetlands managers.

The study is drawing to a close. I am writing again because of the importance that your questionnaire has in helping us to get accurate results. Your name was randomly selected from a list of people who had purchased a 2016 Canadian Wildlife Habitat Conservation Stamp. I need to hear from more people like you so that I can be sure that the study results will fairly represent Canadian waterfowl hunters.

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Your Access Code is: xxxxxxxx

Version April 12, 2017 Page 1 of 2

Page 2 of 2

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Thank you very much for helping with this important study.

Sincerely,

Howard Harshaw

Thurst Hake

Version April 12, 2017



# ÉTUDE NATIONALE SUR LES CHASSEURS DE SAUVAGINE RENSEIGNEMENTS CONCERNANT LE CONSENTEMENT

M. Howard Harshaw, *Ph. D.*Professeur agrégé
Faculté d'éducation physique et sportive
Université de l'Alberta
780-492-6821

#### Bonjour,

Il y a un peu plus d'une semaine, je vous ai envoyé un lien menant à un questionnaire visant à obtenir de l'information sur votre participation et vos attitudes relatives à la chasse à la sauvagine et à la conservation des terres humides. La rétroaction des personnes qui ont déjà répondu comprenait un éventail de commentaires et d'idées sur la conservation de la sauvagine et des terres humides. J'estime que les résultats de cette étude seront utiles aux gestionnaires de la sauvagine et des terres humides.

L'étude tire maintenant à sa fin. Je vous écris à nouveau en raison de l'importance de vos réponses à ce questionnaire. Votre contribution nous aidera à obtenir des résultats précis. Votre nom a été sélectionné au hasard à partir d'une liste de personnes qui ont acheté le *Timbre sur la conservation des habitats fauniques du Canada de 2016*. J'ai besoin de l'aide d'un plus grand nombre de personnes comme vous, afin de veiller à ce que les résultats de cette étude représentent de façon juste les points de vue des chasseurs de sauvagine.

**BUT** Ce projet vise à documenter les modèles de comportement de la participation à la chasse dans l'ensemble du Canada. Nous examinons les facteurs qui contribuent à la participation à la chasse, à la non-participation et au report de la participation. Les résultats de cette étude guideront les gestionnaires de la sauvagine et des terres humides, ainsi que les organisations dédiées à la conservation de la sauvagine et des terres humides, en les renseignant sur les facteurs qui motivent les chasseurs de sauvagine, sur les obstacles à leur participation à la chasse, ainsi que sur les stratégies pouvant mieux appuyer les chasseurs de sauvagine. Les questions de l'étude portent sur les aspects suivants :

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Version du 12 avril 2017 Page 1 de 2

Pour accéder au sondage, rendez-vous à : www.canada-waterfowl-survey.ca

Votre code d'accès est : xxxxxxx

Les résultats et l'analyse de cette étude seront publiés à l'automne 2017 à :

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**RISQUES ET AVANTAGES** Aucun risque prévisible n'est associé à la participation à cette recherche. Il est peu probable que vous éprouviez un inconfort à la suite de votre participation à cette étude. Bien que votre participation à cette recherche ne vous procure pas des avantages directs, il est prévu que les résultats nous aideront à comprendre pourquoi les personnes choisissent (ou non) de chasser la sauvagine.

**CONFIDENTIALITÉ** Votre identité demeurera strictement confidentielle. Votre nom ne figurera pas dans les rapports relatifs à l'étude. Tous les documents seront identifiés uniquement par un code numérique et conservés dans un classeur sous clé et dans un dossier informatique protégé par un mot de passe. Les données recueillies pour cette étude seront conservées aux fins d'utilisation future concernant les opinions et les attitudes du public à propos de la gestion de la sauvagine et des terres humides. Personne en dehors de l'équipe de recherche n'aura accès aux réponses individuelles.

**PERSONNES-RESSOURCES** Si vous avez des questions au sujet de cette recherche ou si vous souhaitez obtenir des renseignements supplémentaires, n'hésitez pas à communiquer avec H. Harshaw, *Ph. D.* au numéro de téléphone qui apparaît en haut de la première page. Le *Comité de l'éthique de la recherche de l'Université de l'Alberta* a analysé le plan de cette étude pour veiller à ce qu'il respecte les lignes directrices en matière d'éthique. Si vous avez des questions au sujet des droits des participants et du respect des principes relatifs à l'éthique de la recherche, veuillez communiquer avec le *Bureau de l'éthique de la recherche* au **780-492-2615**. Si vous souhaitez ne pas participer à ce sondage, veuillez communiquer avec *Habitat faunique Canada* au **613-722-2090**.

**CONSENTEMENT** La participation à cette étude est tout à fait volontaire, et vous pouvez refuser d'y participer sans subir de pénalité. Vous pouvez sauter une question si vous n'êtes pas à l'aise d'y répondre, mais nous vous invitons à répondre à toutes les questions, si possible. Lorsque vous remplissez et soumettez ce sondage, vous consentez à participer à cette étude. Comme l'information sera recueillie de façon anonyme dans le cadre de cette recherche, nous ne pourrons attribuer des commentaires à des personnes en particulier et c'est pourquoi vous ne pourrez retirer vos contributions une fois que vous aurez soumis vos réponses.

Je vous remercie grandement de votre collaboration à cette importante étude.

Je vous prie d'agréer mes salutations distinguées.

Howard Harshaw

Version du 12 avril 2017 Page 2 de 2



# NATIONAL SURVEY OF WATERFOWL HUNTERS CONSENT INFORMATION

Dr. Howard Harshaw
Associate Professor
Faculty of Physical Education & Recreation
University of Alberta
(780) 492-6821

#### Greetings,

Over the past several weeks, I have invited you to complete a survey about waterfowl hunting and wetlands conservation. Your name was randomly selected from a list of people who had purchased a 2016 *Canadian Wildlife Habitat Conservation Stamp*. Responses to this survey have been limited, and I want to ensure that we consider the different perspectives of Canadian waterfowl hunters. One of the biggest issues facing the waterfowl hunting community is the decline of the number waterfowl hunters; we want to understand this better so we can continue to realize the conservation benefits of waterfowl hunting, and begin to address some of the issues that may limit participation in waterfowl hunting.

You can help us by visiting and logging on to the *National Survey of Waterfowl Hunters*. A link to the survey and your personal access code are included below. **All survey respondents will be entered into a draw for one of two Wildlife Habitat Canada** *Limited Edition 2017 Canadian Wildlife Habitat Conservation Prints*. If your name is drawn, you will need to answer a skill-testing question to claim the print; the odds of your name being selected are 1 in 7,320.

#### **PURPOSE**

This project will document patterns of hunting participation across Canada. We are examining the factors that contribute to hunting participation, lapse, and non-participation. The results of this survey will inform waterfowl and wetlands managers, and organizations dedicated to supporting waterfowl and wetlands conservation about the motivations of waterfowl hunters, constraints that limit hunting participation, and strategies that can better support waterfowl hunters. This survey asks about:

- Your participation in waterfowl hunting;
- Your attitudes about the environment and preferences for waterfowl and wetland conservation;
- What waterfowl hunters most desire from waterfowl and wetland management; and
- Waterfowl hunters' knowledge and support for waterfowl and wetlands conservation.

This project is funded by Wildlife Habitat Canada, Ducks Unlimited Canada, Environment and Climate Change Canada, the Government of Ontario, the Government of New Brunswick, and the Alberta NAWMP Partnership. Overall results will be shared publicly. It is anticipated that the survey results will identify and support strategies for the recruitment and retention of waterfowl hunters, including approaches for reducing constraints to hunting participation and to better meeting hunter expectations.

You can access the survey at: www.canada-waterfowl-survey.ca

Your Access Code is: xxxxxxx

Version December 4, 2017

The results and analysis of this study will be publicly available in the early 2018 at:

### www.hd-research.ca

#### STUDY PROCEDURES

The web-based survey will take about 20 to 30 minutes to complete. Please take your time as you consider your answers to the questions. Remember, there are no right or wrong answers. Please return the completed survey by clicking on the "Submit" button at the end of the web-based survey.

#### **RISKS AND BENEFITS**

There are no foreseeable risks to you associated with research. You are you unlikely to experience any discomfort as a result of this research. Although participation in this research will not provide direct benefits to you, it is anticipated that the results of this research will help us to understand why people choose to hunt or not to hunt waterfowl.

#### CONFIDENTIALITY

Your identity will be kept strictly confidential. You will not be identified by name in any reports of the completed study. All documents will be identified only by a code number and kept in a locked filing cabinet and a password protected computer file. The data that is collected in this research project will be kept for future use regarding public opinions and beliefs about waterfowl and wetlands management. Individual responses will not be made available to anyone outside the research team.

#### **CONTACT INFORMATION**

If you have any questions about the research, or would like further information, please do not hesitate to contact Dr. Harshaw at the phone number listed at the top of the first page. The plan for this study has been reviewed for its adherence to ethical guidelines by a *Research Ethics Board* at the *University of Alberta*. For questions regarding participant rights and ethical conduct of research, please contact the *Research Ethics Office* at (780) 492-2615. If you wish to opt out of this survey, please contact *Wildlife Habitat Canada* at (613) 722-2090.

#### CONSENT

Participation in this study is completely voluntary, and you may refuse to participate at any time without penalty. You may skip any question if you do not feel comfortable answering it, though we encourage you to complete all questions if possible. By completing and submitting this survey, you grant your consent to participate in this study. As the information that will be collected in this survey is anonymous, we will not be able to attribute any comments to individuals; as a result, the information that you provide cannot be withdrawn after you have submitted your survey.

Thank you very much for helping with this important study.

Sincerely,

Howard Harshaw

Version December 4, 2017

Thurst Hake



# ÉTUDE NATIONALE SUR LES CHASSEURS DE SAUVAGINE RENSEIGNEMENTS CONCERNANT LE CONSENTEMENT

M. Howard Harshaw, *Ph. D.*Faculté d'éducation physique et sportive
Université de l'Alberta

☎ 780-492-6821

Bonjour,

Au cours des quelques dernières semaines, je vous ai invité à répondre aux questions de l'Étude nationale sur les chasseurs à la sauvagine et la conservation des milieux humides. Votre nom a été choisi au hasard à partir d'une liste de personnes qui ont acheté le *Timbre sur la conservation des habitats fauniques du Canada* de 2016. Comme la participation à l'Étude a été limitée, je souhaite veiller à ce que nous considérions les divers points de vue des chasseurs à la sauvagine canadiens. Un des principaux enjeux auxquels fait face la collectivité des chasseurs à la sauvagine est le déclin du nombre de chasseurs de sauvagine ; nous souhaitons mieux comprendre cette situation, afin de pouvoir continuer à tirer parti des avantages de la chasse à la sauvagine pour la conservation, et de pouvoir nous attaquer à certaines des questions pouvant limiter la participation à cette chasse.

Vous pouvez nous aider en visitant le site de l'Étude nationale sur les chasseurs à la sauvagine et en ouvrant une session. Vous trouverez ci-dessous un lien menant à l'Étude et votre code d'accès personnel. Tous les répondants à cette étude seront inscrits à un tirage leur permettant de gagner l'une de deux lithographies à tirage limité de 2017 des habitats fauniques canadiens d'Habitat faunique Canada. Si votre nom est pigé, vous devrez répondre à une question d'aptitude pour réclamer votre lithographie; vous avez une (1) chance sur 7 320 que votre nom soit pigé.

**BUT** Ce projet vise à documenter les modèles de comportement de la participation à la chasse dans l'ensemble du Canada. Nous examinons les facteurs qui contribuent à la participation à la chasse, à la non-participation et au report de la participation. Les résultats de cette étude guideront les gestionnaires de la sauvagine et des terres humides, ainsi que les organisations dédiées à la conservation de la sauvagine et des terres humides, en les renseignant sur les facteurs qui motivent les chasseurs de sauvagine, sur les obstacles à leur participation à la chasse, ainsi que sur les stratégies pouvant mieux appuyer les chasseurs de sauvagine. Les questions de l'étude portent sur les aspects suivants :

- votre participation à la chasse à la sauvagine ;
- vos attitudes à l'égard de l'environnement et vos préférences liées aux politiques en matière de conservation de la sauvagine et de terres humides;
- les attentes les plus importantes des chasseurs envers les gestionnaires de la sauvagine et des terres humides;

Ce projet est financé par Habitat faunique Canada, Canards illimités Canada, Environnement et Changement climatique Canada, le gouvernement de l'Ontario, le gouvernement du Nouveau-Brunswick et le Partenariat du PNAGS de l'Alberta. Les résultats généraux recueillis seront diffusés publiquement. Il est prévu que les résultats de cette étude aideront à établir et à appuyer des stratégies pour le recrutement et la rétention de chasseurs de sauvagine, y compris des approches visant à réduire les obstacles à la participation à la chasse et à mieux répondre aux attentes des chasseurs.

Version du 4 décembre 2017 Page 1 de 2

Pour accéder au sondage, rendez-vous à : www.canada-waterfowl-survey.ca

Votre code d'accès est : xxxxxxxx

Les résultats et l'analyse de cette étude seront publiés au début de 2018 à :

### www.hd-research.ca

**PROCÉDURES DE L'ÉTUDE** Il vous faudra de 20 à 30 minutes pour remplir ce sondage en ligne. Veuillez prendre le temps de bien considérer vos réponses aux questions. Rappelez-vous qu'il n'y a pas de bonnes ou de mauvaises réponses. Lorsque vous aurez terminé, veuillez envoyer le formulaire en cliquant sur le bouton « Soumettre » qui se trouve à la fin du sondage en ligne.

**RISQUES ET AVANTAGES** Aucun risque prévisible n'est associé à la participation à cette recherche. Il est peu probable que vous éprouviez un inconfort à la suite de votre participation à cette étude. Bien que votre participation à cette recherche ne vous procure pas des avantages directs, il est prévu que les résultats nous aideront à comprendre pourquoi les personnes choisissent (ou non) de chasser la sauvagine.

**CONFIDENTIALITÉ** Votre identité demeurera strictement confidentielle. Votre nom ne figurera pas dans les rapports relatifs à l'étude. Tous les documents seront identifiés uniquement par un code numérique et conservés dans un classeur sous clé et dans un dossier informatique protégé par un mot de passe. Les données recueillies pour cette étude seront conservées aux fins d'utilisation future concernant les opinions et les attitudes du public à propos de la gestion de la sauvagine et des terres humides. Personne en dehors de l'équipe de recherche n'aura accès aux réponses individuelles.

**PERSONNES-RESSOURCES** Si vous avez des questions au sujet de cette recherche ou si vous souhaitez obtenir des renseignements supplémentaires, n'hésitez pas à communiquer avec H. Harshaw, *Ph. D.* au numéro de téléphone qui apparaît en haut de la première page. Le *Comité de l'éthique de la recherche de l'Université de l'Alberta* a analysé le plan de cette étude pour veiller à ce qu'il respecte les lignes directrices en matière d'éthique. Si vous avez des questions au sujet des droits des participants et du respect des principes relatifs à l'éthique de la recherche, veuillez communiquer avec le *Bureau de l'éthique de la recherche* au **780-492-2615**. Si vous souhaitez ne pas participer à ce sondage, veuillez communiquer avec *Habitat faunique Canada* au **613-722-2090**.

**CONSENTEMENT** La participation à cette étude est tout à fait volontaire, et vous pouvez refuser d'y participer sans subir de pénalité. Vous pouvez sauter une question si vous n'êtes pas à l'aise d'y répondre, mais nous vous invitons à répondre à toutes les questions, si possible. Lorsque vous remplissez et soumettez ce sondage, vous consentez à participer à cette étude. Comme l'information sera recueillie de façon anonyme dans le cadre de cette recherche, nous ne pourrons attribuer des commentaires à des personnes en particulier et c'est pourquoi vous ne pourrez retirer vos contributions une fois que vous aurez soumis vos réponses.

Je vous remercie grandement de votre collaboration à cette importante étude.

Je vous prie d'agréer mes salutations distinguées.

Howard Harshaw

Version du 4 décembre 2017

The survey website address is:

### www.canada-waterfowl-survey.ca

Please check the enclosed letter for your personalized Access Code.

You will need to enter the survey website address in your web browser (Internet Explorer, Mozilla Firefox, Safari, Chrome). Typically, you will enter this address in the web address bar located in the upper left corner of your web browser screen. You **CANNOT** get to the survey website by searching for it on a search engine such as Google or Yahoo.

If you have trouble getting to the web address please e-mail us at: hdstudy@ualberta.ca and we will forward a link to the survey website.

L'adresse Internet du sondage est :

### www.canada-waterfowl-survey.ca

SVP vérifiez votre lettre ci-jointe pour connaître votre code d'accès personnalisé.

Vous aurez à mettre l'adresse Internet du sondage dans votre navigateur Web (Internet Explorer, Mozilla Firefox, Safari, Chrome). Pour ce faire, inscrivez l'adresse dans la barre d'adresses située en haut à gauche de l'écran de votre navigateur Web. Vous ne pouvez **PAS** atteindre la page internet du sondage en effectuant une recherche à partir d'un moteur de recherches comme Google ou Yahoo.

Si vous avez de la difficulté à accéder l'adresse Internet du sondage, SVP écrivez-nous à **hdstudy@ualberta.ca** et nous vous fournirons un lien vers le site Internet du sondage.

Version: October 10, 2017 Page 1 of 1



## **NATIONAL SURVEY OF WATERFOWL HUNTERS**

Dr. Howard Harshaw Associate Professor Faculty of Physical Education & Recreation University of Alberta (780) 492-6821

Greetings,

About six weeks ago, I sent a questionnaire to you that asked about waterfowl hunting and wetlands conservation. To the best of my knowledge, it's not yet been returned.

The comments of people that have already responded include a wide variety of reasons for hunting waterfowl, and a variety of opinions about wetlands conservation. Many have described their experiences with, and preferences for, waterfowl hunting and with wetlands conservation.

The study is drawing to a close, and this is the last contact that will be made with the random sample of Canadians that, based on *Canadian Duck Stamp* records, hunt waterfowl. I am sending this final contact because of my concern that people who have not responded may have different experiences than those that have. Hearing from everyone in this sample helps assure that the survey results are as accurate as possible. I also want to assure you that your response to this study is voluntary, and if you prefer not to respond that's fine. If you have any questions, please don't hesitate to contact me collect at: (780) 492-6821.

I have enclosed a short version of the questionnaire, and hope that you will be able to complete it and send it back to me in the enclosed stamped return envelope. I appreciate your willingness to consider this request as I conclude this effort to better understand Canadians' waterfowl hunting participation and preferences, and their attitudes about wetlands conservation. Thank you very much.

The results and analysis of this study will be publicly available in the late Spring of 2018 at:

www.hd-research.ca

Sincerely,

Howard Harshaw

Version April 12, 2017

Thurst Hake

Page 1 of 2

#### **PURPOSE**

This project will document hunting participation across Canada. We are examining the factors that contribute to hunting participation, lapse, and non-participation. The results of this survey will inform waterfowl and wetlands managers, and organizations dedicated to supporting waterfowl and wetlands conservation about the motivations of waterfowl hunters, constraints that limit hunting participation, and strategies that can better support waterfowl hunters. This survey asks about:

- Your participation in waterfowl hunting;
- Your attitudes about the environment, and preferences for waterfowl & wetland conservation policies:
- What waterfowl hunters most desire from waterfowl and wetland management;
- Waterfowl hunters' knowledge and support for waterfowl and wetlands conservation.

This project is funded by Wildlife Habitat Canada, Ducks Unlimited Canada, Environment and Climate Change Canada, the Government of Ontario, the Government of New Brunswick, and the Alberta NAWMP Partnership. Overall results will be shared publicly. It is anticipated that the survey results will identify and support strategies for the recruitment and retention of waterfowl hunters, including approaches for reducing constraints to hunting participation and to better meeting hunter expectations.

#### STUDY PROCEDURES

The web-based survey will take about 20 to 30 minutes to complete. Please take your time as you consider your answers to the questions. Remember, there are no right or wrong answers. Please return the completed survey using the enclosed stamped return envelope.

#### **RISKS AND BENEFITS**

There are no foreseeable risks to you associated with research. You are you unlikely to experience any discomfort as a result of this research. Although participation in this research will not provide direct benefits to you, it is anticipated that the results of this research will help us to understand why people choose to hunt or not to hunt waterfowl.

#### CONFIDENTIALITY

Your identity will be kept strictly confidential. You will not be identified by name in any reports of the completed study. All documents will be identified only by a code number and kept in a locked filing cabinet and a password protected computer file. The data that is collected in this research project will be kept for future use regarding public opinions and beliefs about waterfowl and wetlands management. Individual responses will not be made available to anyone outside the research team.

#### **CONTACT INFORMATION**

If you have any questions about the research, or would like further information, please do not hesitate to contact Dr. Harshaw at the phone number listed at the top of the first page. The plan for this study has been reviewed for its adherence to ethical guidelines by a *Research Ethics Board* at the *University of Alberta*. For questions regarding participant rights and ethical conduct of research, please contact the *Research Ethics Office* at **(780) 492-2615**.

#### CONSENT

Participation in this study is completely voluntary, and you may refuse to participate at any time without penalty. You may skip any question if you do not feel comfortable answering it, though we encourage you to complete all questions if possible. By completing and submitting this survey, you grant your consent to participate in this study. As the information that will be collected in this survey is anonymous, we will not be able to attribute any comments to individuals; as a result, the information that you provide cannot be withdrawn after you have submitted your survey.

Version April 12, 2017 Page 2 of 2



## ÉTUDE NATIONALE SUR LES CHASSEURS DE SAUVAGINE

M. Howard Harshaw, *Ph. D.*Professeur agrégé
Faculté d'éducation physique et sportive
Université de l'Alberta

☎ 780-492-6821

Bonjour,

Il y a environ six semaines, je vous ai envoyé un questionnaire visant à obtenir de l'information sur la chasse à la sauvagine et la conservation des terres humides. À ma connaissance, il n'a pas encore été retourné.

Les commentaires des personnes qui y ont déjà répondu comprennent diverses raisons de chasser la sauvagine et un éventail de points de vue sur la conservation des terres humides. Plusieurs personnes ont décrit leur expérience et leurs préférences relatives à la chasse à la sauvagine et à la conservation des terres humides.

L'étude tire à sa fin, et cette lettre constitue le contact final qui sera établi auprès d'un échantillon aléatoire de Canadiens, qui, selon le registre du *Timbre sur la conservation des habitats fauniques du Canada*, sont des chasseurs de sauvagine. Je communique avec vous une dernière fois, car j'estime que les personnes qui n'ont pas encore répondu pourraient avoir une expérience différente de celle des personnes qui ont déjà participé au sondage. Vos réponses aident à veiller à ce que les résultats du sondage soient les plus précis possible. Je tiens aussi à vous assurer que votre participation à cette étude est volontaire, et que si vous ne souhaitez pas y participer, cela ne pose aucun problème. Si vous avez des questions, n'hésitez pas à communiquer avec moi au 780-492-6821.

J'ai joint à la présente lettre une version abrégée du questionnaire, en espérant que vous pourrez le remplir et me l'envoyer en utilisant l'enveloppe de retour affranchie. Je vous suis reconnaissant de votre volonté de considérer cette demande alors que je m'apprête à conclure cette étude visant à mieux comprendre la participation des Canadiens à la chasse à la sauvagine et leurs préférences à cet égard, ainsi que leurs attitudes envers la conservation des terres humides. Je vous remercie beaucoup.

Les résultats et l'analyse de cette étude seront publiés au printemps 2018 sur :

### www.hd-research.ca

**BUT** Ce projet vise à documenter la participation à la chasse dans l'ensemble du Canada. Nous examinons les facteurs qui contribuent à la participation à la chasse, à la non-participation et au report de la participation. Les résultats de cette étude guideront les gestionnaires de la sauvagine et des terres humides, ainsi que les organisations dédiées à la conservation de la sauvagine et des terres humides, en les renseignant sur les facteurs qui motivent les chasseurs de sauvagine, sur les obstacles à leur participation à la chasse, ainsi que sur les stratégies pouvant mieux appuyer les chasseurs de sauvagine. Les questions de l'étude portent sur les aspects suivants :

Version du 12 avril 2017 Page 1 de 2

- votre participation à la chasse à la sauvagine;
- vos attitudes à l'égard de l'environnement et vos préférences liées aux politiques en matière de conservation de la sauvagine et de terres humides;
- les attentes les plus importantes des chasseurs envers les gestionnaires de la sauvagine et des terres humides:
- les connaissances des chasseurs de sauvagine et leur appui à la conservation de la sauvagine et des terres humides.

Ce projet est financé par Habitat faunique Canada, Canards illimités Canada, Environnement et Changement climatique Canada, le gouvernement de l'Ontario, le gouvernement du Nouveau-Brunswick et le Partenariat du PNAGS de l'Alberta. Les résultats généraux recueillis seront diffusés publiquement. Il est prévu que les résultats de cette étude aideront à établir et à appuyer des stratégies pour le recrutement et la rétention de chasseurs de sauvagine, y compris des approches visant à réduire les obstacles à la participation à la chasse et à mieux répondre aux attentes des chasseurs.

**PROCÉDURES DE L'ÉTUDE** Il vous faudra de 20 à 30 minutes pour remplir le sondage en ligne. Veuillez prendre le temps de bien considérer vos réponses aux questions. Rappelez-vous qu'il n'y a pas de bonnes ou de mauvaises réponses. Veuillez retourner le questionnaire rempli en utilisant l'enveloppe de retour affranchie.

**RISQUES ET AVANTAGES** Aucun risque prévisible n'est associé à la participation à cette recherche. Il est peu probable que vous éprouviez un inconfort à la suite de votre participation à cette étude. Bien que votre participation à cette recherche ne vous procure pas des avantages directs, il est prévu que les résultats nous aideront à comprendre pourquoi les personnes choisissent (ou non) de chasser la sauvagine.

**CONFIDENTIALITÉ** Votre identité demeurera strictement confidentielle. Votre nom ne figurera pas dans les rapports relatifs à l'étude. Tous les documents seront identifiés uniquement par un code numérique et conservés dans un classeur sous clé et dans un dossier informatique protégé par un mot de passe. Les données recueillies pour cette étude seront conservées aux fins d'utilisation future concernant les opinions et les attitudes du public à propos de la gestion de la sauvagine et des terres humides. Personne en dehors de l'équipe de recherche n'aura accès aux réponses individuelles.

**PERSONNES-RESSOURCES** Si vous avez des questions au sujet de cette recherche ou si vous souhaitez obtenir des renseignements supplémentaires, n'hésitez pas à communiquer avec H. Harshaw, *Ph. D.* au numéro apparaissant en haut de la première page de cette lettre. Le *Comité de l'éthique de la recherche de l'Université de l'Alberta* a analysé le plan de cette étude pour veiller à ce qu'il respecte les lignes directrices en matière d'éthique. Si vous avez des questions au sujet des droits des participants et du respect des principes relatifs à l'éthique de la recherche, veuillez communiquer avec le *Bureau de l'éthique de la recherche* au **780-492-2615**.

**CONSENTEMENT** La participation à cette étude est tout à fait volontaire, et vous pouvez refuser d'y participer sans subir de pénalité. Vous pouvez sauter une question si vous n'êtes pas à l'aise d'y répondre, mais nous vous invitons à répondre à toutes les questions, si possible. Lorsque vous remplissez et soumettez ce sondage, vous consentez à participer à cette étude. Comme l'information sera recueillie de façon anonyme dans le cadre de cette recherche, nous ne pourrons attribuer des commentaires à des personnes en particulier et c'est pourquoi vous ne pourrez retirer vos contributions une fois que vous aurez soumis vos réponses.

Je vous prie d'agréer mes salutations distinguées.

Howard Harshaw

Version du 12 avril 2017 Page 2 de 2

## **Appendix D**

**University of Alberta Research Ethics Office Project Approval** 

2018-07-26, 2:16 PM



#### RESEARCH ETHICS OFFICE

308 Campus Tower Edmonton, AB, Canada T6G 1K8 Tel: 780.492.0459 Fax: 780.492.9429 www.reo.ualberta.ca

#### **Notification of Approval**

Date: September 2, 2015

Study ID: Pro00054255

Principal

**Howard Harshaw** Investigator:

Understanding the dynamics of people's interactions with waterfowl: Assessing stakeholder and Study Title:

processional preferences for waterfowl management in Canada.

Approval Expiry

Date:

Thursday, September 1, 2016

Approved

Approved Document Consent Form: Approval Date

Ducks Unlimited Canada (PRO) 5268 Sponsor/Funding **Environment Canada** 5278

Agency:

Sponsor/Funding Wildlife Habitat Canada Agency:

> Speed Other Project ID **Project Title** Code Information

RES0025856 Understanding the dynamics of people's interactions with waterfowl: Assessing stakeholder and professionals preferences for waterfowl management in Canada

**RSO-Managed** 

Funding:

RES0025428 Understanding the dynamics of people's interactions with waterfowl: Assessing stakeholder and professionals preferences for waterfowl

management in Canada RES0027651 Understanding the dynamics of people's interactions with waterfowl:

Assessing stakeholder and professionals preferences for waterfowl management in Canada

Thank you for submitting the above study to the Research Ethics Board 2 . Your application has been reviewed and approved on behalf of the committee.

A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Research Ethics Board does not encompass authorization to access the staff, students, facilities or resources of local institutions for the purposes of the research.

https://remo.ualberta.ca/REMO/Doc/0/NJS3VFBDDI34PB4P3G0BSTQHA2/fromString.html

	2018-07-26, 2:16 PM
Sincerely,	
Stanley Varnhagen, PhD Chair, Research Ethics Board 2	
Note: This correspondence includes an electronic signature (validation and approval via an online system).	
https://remo.ualberta.ca/REMO/Doc/0/NJS3VFBDDI34PB4P3G0BSTQHA2/fromString.html	Page 2 of 2

### Appendix E

North American Waterfowl Hunting Non-Response Results

### Question E1: "Which of the following best describes your pursuits in waterfowl hunting?

Table E1. Which of the following best describes your pursuits in waterfowl hunting?

Deenenee		<b>X</b> <sup>2</sup>	DF	m valva				
Response -	Full S	urvey	NR S	NR Survey		DF	p-value	Фс
I hunt only ducks	12	6.0%	11	5.6%				
I hunt ducks and geese	178	88.6%	159	81.5%				
I hunt only geese	11	5.5%	9	4.6%	17.228	3	< .05	0.209
I hunt neither ducks nor geese	0	0.0%	16	8.2%				
Total	201	100.0%	195	100.0%				

### Question E2: How old were you when you started waterfowl hunting?

**Table E2.** How old were you when you started waterfowl hunting?

Data Source	n	Mean	SD	t	DF	p-value	d
Full Survey	201	22.43	13.260	4.219	400	< .001	0.420
NR Survey	201	16.64	14.267	4.219	400	< .001	0.420

#### Question E3: How many of the last 5 years have you hunter waterfowl?

**Table E3.** How many of the last 5 years have you hunter waterfowl?

_		Data so	urce		X <sup>2</sup>		_	_
Response -	Full S	urvey	NR St	NR Survey		DF	p-value	Фс
None	0	0.0%	12	6.5%				
1 year	14	7.0%	9	4.9%				
2 years	20	10.0%	13	7.0%				
3 years	33	16.4%	23	12.4%	18.755	5	< .05	0.220
4 years	23	11.4%	33	17.8%				
5 years	111	55.2%	95	51.4%				
Total	201	100.0%	185	100.0%				

# Question E4: Over the last five years, about how many days did you usually hunt waterfowl in a year?

Table E4. Over the last five years, about how many days did you usually hunt waterfowl in a year?

Desneros		<b></b> 2	DE	n volue					
Response —	Full Survey		NR Survey		χ²	DF	p-value	Фс	
5 days or less	95	48.2%	66	37.7%					
6 to 10 days	54	27.4%	58	33.1%					
11 to 20 days	35	17.8%	25	14.3%	11 045	4	. 05	0.474	
21 to 30 days	8	4.1%	11	6.3%	11.245	4	< .05	0.174	
More than 30 days	5	2.5%	15	8.6%					
Total	197	100.0%	175	100.0%					

### Question E5: Under what circumstances do you typically go hunting?

Table E5. Under what circumstances do you typically go hunting?

Deenenee	Data source				, r2	DE	n volue	Φ.
Response -	Full Survey		NR Survey		X <sup>2</sup>	DF	p-value	Фс
When I plan the hunt myself	58	28.9%	61	8.6%				
When someone else invites me	20	10.0%	19	2.7%				
Both when I plan the hunt or someone else invites me	123	61.2%	97	13.6%	1.657	2	> .05	_
Total	201	100.0%	177	24.9%				

# Question E6: In which Canadian Province/Territory or US State have you hunted waterfowl most often over the past 5 years?

**Table E6.** In which Canadian Province/Territory or US State have you hunted waterfowl most often over the past 5 years?<sup>1</sup>

Deenenee		Data source					n-value	фа
Response -	Full Survey		NR St	NR Survey		DF	p-value	Фс
Alberta	43	21.4%	37	21.5%				
British Columbia	20	10.0%	18	10.5%				
Manitoba	6	3.0%	8	4.7%				
New Brunswick	4	2.0%	3	1.7%				
Newfoundland & Labrador	8	4.0%	7	4.1%				
Nova Scotia	1	0.5%	4	2.3%				
Northwest Territories	0	0.0%	0	0.0%	7.000	40	0.5	
Nunavut	0	0.0%	0	0.0%	7.902	10	> .05	_
Ontario	53	26.4%	45	26.2%				
Prince Edward Island	1	0.5%	2	1.2%				
Québec	29	14.4%	28	16.3%				
Saskatchewan	36	17.9%	19	11.0%				
Yukon	0	0.0%	1	0.6%				
Total	201	100.0%	172	100.0%				

<sup>&</sup>lt;sup>1</sup> No US States were identified by respondents.

### Question E8: Please indicate how much of a problem the following are in the province where you hunt ducks most.

**Table E8a.** Crowding at hunting areas.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	198	1.78	0.976	-2.272	256	- 0E	0.242
NR Survey	160	2.03	1.090	-2.212	330	< .05	0.242

#### Table E8b. Hunting pressure.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	198	1.81	1.003	-2.095	354	< .05	0.221
NR Survey	158	2.04	1.073	-2.095	334	< .05	0.221

Table E8c. Interference from other waterfowl hunters.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	199	1.74	0.943	-2.268	361	< .05	0.247
NR Survey	164	1.99	1.108	-2.200	301	< .05	0.247

Table E8d. Conflict with other waterfowl hunters in places I hunt.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	199	1.44	0.795	-2.490	217 402	- 0E	
NR Survey	164	1.67	0.954	-2.490	317.423	< .05	_

Table E8e. Lack of public places for waterfowl hunting

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	199	2.52	1.466	-1.098	363	> .05	_
NR Survey	166	2.69	1.484	-1.096	303	> .05	_

## Question E9: In the province where you hunt ducks most often, how satisfied or dissatisfied are you with each of the following?

**Table E9a.** Satisfaction with: The number of ducks you see during the season.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	188	3.37	1.241	-0.237	357	> .05	_
NR Survey	171	3.4	1.244	-0.237	337	>.05	_

**Table E9b.** Satisfaction with: The number of ducks you harvest during the season.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	186	3.33	1.188	0.253	353	> .05	
NR Survey	169	3.3	1.203	0.233	333	>.05	_

**Table E9c.** Satisfaction with: The number of days in the duck season.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	185	4	1.016	1.021	354	> .05	
NR Survey	171	3.89	1.037	1.021	334	>.05	_

**Table E9d.** Satisfaction with: The number of ducks in the daily limit.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	186	4.15	0.956	2.219	354	< .05	0.236
NR Survey	170	3.91	1.078	2.219	334	< .05	0.230

**Table E9e.** Satisfaction with: The number of ducks typically present during the hunting season.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	188	3.38	1.233	-0.516	357	> .05	
NR Survey	171	3.44	1.218	-0.516	337	<i>&gt;</i> .05	_

**Table E9f.** Satisfaction with: Quality of habitat where you hunt.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	188	3.76	1.085	-0.734	358	> .05	
NR Survey	172	3.84	1.039	-0.734	336	<i>&gt;</i> .05	

**Table E9g.** Satisfaction with: Your overall duck hunting experience.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	188	3.84	1.107	-2.702	353.553	< .05	0.286
NR Survey	171	4.13	0.911	-2.702	333.333	₹.05	0.200

### Question E10: What is the minimum number of ducks you have to harvest in a day to feel satisfied with the hunt?

**Table E10.** What is the minimum number of ducks you have to harvest in a day to feel satisfied with the hunt?

Deenenee		Data so	urce		**3	DE	n volue	
Response —	Full Su	ırvey	NR Su	rvey	χ²	DF	p-value	Фс
0	41	21.9%	21	12.3%				
1	35	18.7%	19	11.1%				
2	50	26.7%	26	15.2%				
3	17	9.1%	24	14.0%				
4	18	9.6%	26	15.2%	00.700	c		0.001
5	10	5.3%	33	19.3%	36.796	8	3 < .001	0.321
6	12	6.4%	16	9.4%				
7	0	0.0%	3	1.8%				
>7	4	2.1%	3	1.8%				
Total	187	100.0%	171	100.0%				

### Question E11: What is the smallest daily bag limit you would accept before you would no longer hunt ducks?

Table E11. What is the smallest daily bag limit you would accept before you would no longer hunt ducks?

Pagnanag		Data so	ource		2	DE	p-value	
Response -	Full Survey		NR Survey		χ²	DF	p-value	Фс
6 ducks	30	16.0%	11	6.4%				
5 ducks	23	12.2%	14	8.2%				
4 ducks	28	14.9%	34	19.9%				
3 ducks	23	12.2%	18	10.5%	18.761	6	< .05	0.229
2 ducks	21	11.2%	14	8.2%	10.701	O	< .05	0.229
1 duck	8	4.3%	3	1.8%				
I'll hunt with any size daily bag limit	55	29.3%	77	45.0%				
Total	188	100.0%	171	100.0%				

## Question E12: What is the minimum number of days in a waterfowl hunting season you would accept before you would no longer hunt ducks?

**Table E12.** What is the minimum number of days in a waterfowl hunting season you would accept before you would no longer hunt ducks?

Doomonoo		Data so	urce		2	DE	m value	фс
Response -	Full Survey		NR Survey		Χ²	DF	p-value	Фс
60 days	52	27.5%	32	18.8%				
55 days	1	0.5%	1	0.6%				
50 days	8	4.2%	3	1.8%				
45 days	13	6.9%	5	2.9%				
40 days	12	6.3%	4	2.4%				
30 days	30	15.9%	23	13.5%	00 007	10	. 05	0.000
25 days	2	1.1%	2	1.2%	20.307	10	< .05	0.238
20 days	4	2.1%	5	2.9%				
15 days	1	0.5%	3	1.8%				
10 days	6	3.2%	6	3.5%				
I'll hunt with any season length	60	31.7%	86	50.6%				
Total	189	100.0%	170	100.0%				

## Question E13: Do you primarily take day trips or overnight/multi-day trips when you waterfowl hunt?

**Table E13.** Do you primarily take day trips or overnight/multi-day trips when you waterfowl hunt?

Deenenee		Data so	ource		?	DE	p-value	
Response -	Full Survey		NR Survey		χ²	DF	p-value	Фс
Primarily day trips	155	77.1%	138	79.3%				
Primarily overnight or multi-day trips	32	15.9%	23	13.2%	0.555	2	> .05	0.038
Both about equally	14	7.0%	13	7.5%	0.555	2	>.05	0.036
Total	201	100.0%	174	100.0%				

### Question E14: Please indicate where you do most of your waterfowl hunting.

Table E14. Please indicate where you do most of your waterfowl hunting

Parameter		Data so	ource		2	DE		Фс
Response -	Full S	Survey	vey NR Surve		Χ²	DF	p-value	Фс
Public lands or waters	82	40.8%	57	38.3%				
Private property owned by you, your family or in partnership with someone else	20	10.0%	18	12.1%				
Private property owned by a friend or another landowner who gives you permission to hunt for free	93	46.3%	67	45.0%	3.171	4	> .05	0.095
Private property you lease or pay to hunt on	3	1.5%	6	4.0%				
Guest on private property someone else leases or pays to hunt on	3	1.5%	1	0.7%				
Total	201	100.0%	149	100.0%				

# Question E15: How much priority should provincial/territorial and federal agencies give the following when setting annual duck hunting regulations?

**Table E15a.** Having the largest bag limits possible.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	199	2.8	1.127	1.716	265	> 0E	
NR Survey	168	2.61	1.056	1.710	365	> .05	_

**Table E15b.** Having the longest seasons possible.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	198	3.27	1.015	0.945	364	> .05	_
NR Survey	168	3.17	1.025	0.945	304	> .05	_

**Table E15c.** Having the largest duck populations possible.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	199	3.97	0.881	0.741	330.372	> .05	
NR Survey	170	3.89	1.055	0.741	330.372	> .05	_

**Table E15d.** Avoiding different season lengths for different duck species.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	198	3.59	1.153	1.912	365	> .05	
NR Survey	169	3.34	1.277	1.912	303	> .05	

**Table E15e.** Providing the simplest regulations possible.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	198	3.97	0.934	-0.250	366	> .05	
NR Survey	170	3.99	0.933	-0.250	300	>.05	_

**Table E15f.** Reducing the number of species-specific bag limits.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	198	3.17	1.057	3.092	365	< .05	0.321
NR Survey	169	2.83	1.064	3.092	303	₹.05	0.321

**Table E15g.** Having the largest drake mallard bag limits possible.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	199	2.9	1.076	-0.123	368	> .05	_
NR Survey	171	2.92	1.037	-0.123	300	> .00	

Question E16: We are interested in knowing how much waterfowl hunting means to you. Please indicate how much you disagree or agree with the following statements about your involvement in waterfowl hunting.

**Table E16a.** Waterfowl hunting is one of the most enjoyable activities I do.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	195	3.76	0.993	2.066	266 102	- OF	0.205
NR Survey	174	4.06	0.845	-3.066	366.193	< .05	0.325

**Table E16b.** Most of my friends are in some way connected with waterfowl hunting.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	194	2.81	1.100	2 106	266	- 0E	0.222
NR Survey	174	3.18	1.123	-3.186	366	< .05	0.333

Table E16c. Waterfowl hunting has a central role in my life.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	193	2.70	1.187	-4.152	363	< .001	0.433
NR Survey	172	3.20	1.124	-4.152	303	< .001	0.433

**Table E16d.** A lot of my life is organized around waterfowl hunting.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	196	2.63	1.154	-0.319	367	> .05	_
NR Survey	173	2.67	1.121	-0.319	307	>.05	_

**Table E16e.** If I couldn't go waterfowl hunting I am not sure what I would do instead.

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	196	2.76	1.207	1.563	367	> .05	
NR Survey	173	2.55	1.25	1.303	307	>.05	_

Question E17: A person can think of themselves in a variety of ways. On a scale of 1 to 5, where 1 is "not at all" and 5 is "very strongly", how much would you identify yourself as the following?

Table E17a. Identify yourself as a Birdwatcher

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	185	2.62	1.184	0.470	074	> 0E	
NR Survey	191	2.56	1.112	0.473	374	> .05	_

Table E17b. Identify yourself as a Duck Hunter

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	191	3.46	1.014	0.721	368.884	> .05	_
NR Survey	190	3.38	1.192	0.721	300.004	>.00	

Table E17c. Identify yourself as Goose Hunter

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	192	3.35	1.078	-0.459	374.26	> .05	_
NR Survey	191	3.41	1.227	-0.459	3/4.20	> .05	_

Table E17d. Identify yourself as an Other (type of) hunter

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	192	3.76	1.076	-0.057	379	> .05	
NR Survey	189	3.77	1.224	-0.057	3/9	>.05	_

**Table E17e.** Identify yourself as a Conservationist

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	192	3.85	1.002	0.014	380	> .05	
NR Survey	190	3.85	1.154	0.014	360	>.00	_

## Question E18: In the last 12 months, have you participated in the following nature-based activities?

Table E18a. Spending time in nature away from home

Deenenee		Data s	ource		0	DE	n valua	
Response	Full	Survey	NR Survey		χ2	DF	p-value	ф
Yes	184	95.8%	168	85.3%				
No	8	4.2%	29	14.7%	12.584	1	< .001	0.180
Total	192	100.0%	197	100.0%				

Table E18b. Viewing wildlife

Response		Data s	ource		wa	DF	p-value	
	Full	Survey	NR :	Survey	χ2	Di		ф
Yes	153	80.5%	157	79.7%				
No	37	19.5%	40	20.3%	0.042	1	> .05	
Total	190	100.0%	197	100.0%				

Table E18c. Learning about nature

Response -		Data s	ource		v2	DF	p-value	ф
nesponse	Full	Survey	NR Survey		χ2	DF	p-value	Ф
Yes	96	51.3%	81	41.8%				
No	91	48.7%	113	58.2%	3.516	1	> .05	
Total	187	100.0%	194	100.0%				

Table E18d. Backyard/at-home nature activities

Response	Data source				wo	DE	p-value	Φ.	
nesponse	Full	Survey	NR S	Survey	χZ	χ2 DF p-value		Ф	
Yes	177	93.2%	180	91.4%					
No	13	6.8%	17	8.6%	0.432	1	> .05		
Total	190	100.0%	197	100.0%					

Table E18e. Fishing

Doononoo		Data s	ource		v2	DE	p-value	ф
Response	Full	Survey	NR Survey χ2		χZ	DF	p-value	Ф
Yes	167	87.9%	177	90.3%				
No	23	12.1%	19	9.7%	0.579	1	> .05	
Total	190	100.0%	196	100.0%				

Table E18f. Hunting migratory birds other than waterfowl

Response -		Data s	ource		wa	DF	p-value	•
nesponse	Full	Survey	NR Survey		χ2		p-value	Ф
Yes	64	33.9%	37	18.8%				
No	125	66.1%	160	81.2%	11.255	1	< .01	0.172
Total	189	100.0%	197	100.0%				

**Table E18g.** Hunting other game birds

Response		Data s	ource		v2	DF	p-value	ф
	Full	Survey	NR :	Survey	χ2	DF		
Yes	160	84.2%	144	73.5%				
No	30	15.8%	52	26.5%	6.653	1	< .05	0.131
Total	190	100.0%	196	100.0%				

Table E18h. Hunting any other game animals

Response		Data s	ource		v0	DE	n volue	
nesponse	Full	Survey	NR S	Survey	χ2	DF	p-value	Ф
Yes	160	83.8%	166	84.7%				
No	31	16.2%	30	15.3%	0.062	1	> .05	
Total	191	100.0%	196	100.0%				

Table E18i. Watching birds at my home

Personee		Data s	ource		w0	DE		
Response	Full	Survey	NR S	Survey	χ2	DF	p-value	Ф
Yes	156	81.7%	165	84.2%				
No	35	18.3%	31	15.8%	0.430	1	> .05	
Total	191	100.0%	196	100.0%				

Table E18j. Feeding birds at my home

Response		Data s	ource		– x2 DF p-value				
nesponse	Full	Survey	NR S	Survey	χ2	DF	p-value	Ф	
Yes	121	63.7%	132	67.3%					
No	69	36.3%	64	32.7%	0.573	1	> .05		
Total	190	100.0%	196	100.0%					

**Table E18k.** Watching birds away from my home

Response		Data s	source		— χ2 DF p-value				
nesponse	Full	Survey	NR	NR Survey χ2 DF p-val		p-value	Ф		
Yes	139	73.2%	134	68.4%					
No	51	26.8%	62	31.6%	1.069	1	> .05		
Total	190	100.0%	196	100.0%					

Table E18I. Photographing or filming birds

Poononoo		Data s	ource		— χ2 DF p-value	DE payalua d			
Response -	Full	Survey	NR S	Survey	χ2	DF	p-value	Ф	
Yes	65	35.1%	45	23.1%					
No	120	64.9%	150	76.9%	6.711	1	< .05	0.133	
Total	185	100.0%	195	100.0%					

Table E18 m. Counting/monitoring birds

Doonanaa		Data s	ource		— χ² DF p-value				
Response -	Full	Survey	NR S	Survey	Χ²	DF	p-value	Ф	
Yes	21	11.4%	19	9.6%					
No	164	88.6%	178	90.4%	0.296	1	> .05		
Total	185	100.0%	197	100.0%					

Table E18n. Recording the birds you see on a list, online or on paper

Resnonse		Data s	ource		wa			
Response	Full	Survey	NR S	Survey	χ2	DF	p-value	φ
Yes	22	11.9%	13	6.6%				
No	163	88.1%	183	93.4%	3.155	1	> .05	
Total	185	100.0%	196	100.0%				

Table E18o. Installing or maintaining nest boxes for birds

Poononco		Data s	ource		wa	•		
Response -	Full	Survey	NR S	Survey	χ2	DF	p-value	Ф
Yes	68	36.2%	66	33.8%				
No	120	63.8%	129	66.2%	0.227	1	> .05	
Total	188	100.0%	195	100.0%				

### Question E19: Age.

Table E19. Calculated age

Data source	n	Mean	SD	t	DF	p-value	d
Full Survey	190	53.13	17.042	-0.714	377	> .05	
NR Survey	189	54.34	15.983	-0.714	311	>.05	

#### Question E20: Gender.

Table E20. Gender

Response		Data s	ource		wa	n volue		
Response -	Full	Survey	NR :	Survey	χ2	DF	p-value	φ
Male	188	97.9%	186	97.9%				
Female	4	2.1%	4	2.1%	0.000	1	> .05	
Total	192	100.0%	190	100.0%				

### Question E21: What is the highest level of education that you have completed?

**Table E21.** What is the highest level of education that you have completed?

Daamana		Data s	ource		0	DE		
Response	Full Survey NR Survey		Survey	χ2	DF	p-value	фС	
Some high school	7	3.6%	19	10.0%				
High school	33	17.2%	50	26.3%				
Some university/college	36	18.8%	22	11.6%				
University/college degree	69	35.9%	68	35.8%	21.05	5	< .01	0.235
Graduate degree	31	16.1%	12	6.3%				
Other	16	8.3%	19	10.0%				
Total	192	100.0%	190	100.0%				

### Question E22: Do you own land in a rural area?

Table E22. Do you own land in a rural area?

Resnonse		Data s	ource		— y2 DF p-value				
Response	Full	Survey	NR S	Survey	χ2	DF	p-value	Φ	
No	91	47.4%	103	54.5%					
Yes	101	52.6%	86	45.5%	1.922	1	> .05		
Total	192	100.0%	189	100.0%					

### Question E23: Which of these categories best describes the place where you live now?

Table E23. Which of these categories best describes the place where you live now?

Response	Data source				0	DE	n value	• -
	Full Survey		NR Survey		χ2	DF	p-value	фс
Large urban area	41	21.4%	25	13.2%	7.012	4	> .05	
Medium urban area	32	16.7%	37	19.5%				
Small city	30	15.6%	35	18.4%				
Small town	35	18.2%	47	24.7%				
Rural area	54	28.1%	46	24.2%				
Total	192	100.0%	190	100.0%				

### Question E24: Please indicate which of the following categories applies to your personal income for the last 12 months?

**Table E24.** Please indicate which of the following categories applies to your personal income for the last 12 months?

Response	Data source				0	DE		4.5
	Full Survey		NR Survey		χ2	DF	p-value	фс
Less than \$24,999	15	8.1%	25	13.7%	10.874	9	> .05	
\$25,000 to \$49,999	36	19.5%	42	23.1%				
\$50,000 to \$74,999	45	24.3%	37	20.3%				
\$75,000 to \$99,999	30	16.2%	33	18.1%				
\$100,000 to \$124,999	20	10.8%	21	11.5%				
\$125,000 to \$149,999	16	8.6%	7	3.8%				
\$150,000 to \$199,999	10	5.4%	10	5.5%				
\$200,000 to \$249,999	4	2.2%	1	0.5%				
\$250,000 to \$299,999	1	0.5%	2	1.1%				
\$300,000 or more	8	4.3%	4	2.2%				
Total	185	100.0%	182	100.0%				

#### Question E25: Please let us know why you chose not to complete the survey online earlier.

**Table E25.** Please let us know why you chose not to complete the survey online earlier.

Response	Frequency	%
I didn't receive the invitation in the mail	31	15.4%
I don't have access to the internet	24	11.9%
I have internet access, but couldn't open the website	6	3.0%
I didn't have time to complete the study earlier	87	43.3%
I don't like to answer questions online	50	24.9%
I don't hunt ducks or geese	4	2.0%
I didn't think the survey applied to me	13	6.5%