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**Report:**

**Maine Residents' Perceptions of Deer and  
Deer Feeding**

**Date:** January 15, 2020

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## **Human Dimensions of Wildlife Lab University of Maine**

This publication is a report produced by the Human Dimensions of Wildlife Lab (HDWL) dealing with public issues in natural resource management and conservation. The HDWL, in the Department of Wildlife, Fisheries, and Conservation Biology at the University of Maine (UMaine), studies social impacts of resource management – the community interactions, associated conflicts, and decision making. Further information, including a copy of this report, can be found on our webpage:

<https://umaine.edu/sponarskilab/>

### **To Cite This Report**

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### **Acknowledgement**

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# Introduction

## Background

Maine Department of Inland Fisheries and Wildlife (MDIFW) contracted Dr. Carly Sponarski's Human Dimensions of Wildlife laboratory at the University of Maine to do a survey of Maine's residents to explore their perceptions of deer and deer feeding. This work is nested within a larger collaboration called the Northeast Deer Research Partnership (NEDRP), a group of government agencies, private companies, university researchers, and non-government organizations from Maine and New Brunswick. This group works together to understand the abiotic, biotic, and social factors influencing white-tailed deer survival and abundance in both the state of Maine and the province of New Brunswick. One factor that may be influencing deer survival and abundance is the presence or absence of feeding by residents. Feeding may have broader impacts on both the deer population and on public health and safety. These impacts may include an increase in the number of deer-vehicle collisions, a growing concern about the introduction of Lyme disease-carrying ticks, and social conflicts between those who feed, and their neighbors who may be concerned about these risks. Although deer feeding is strongly discouraged by MDIFW, people are feeding deer throughout Maine.

The goal of this study was to survey the public of Maine about deer feeding and deer management in order to better understand their perceptions and opinions toward this subject. This information will support deer management decisions concerning wildlife feeding in the state.

## Research Questions

1. What are the perceived impacts of deer feeding on deer and on people in Maine? (Impacts on deer mortality, impacts on deer condition, impacts on deer-human conflict levels, etc.)
2. What are Mainers perceptions of different types of deer feeding: baiting, artificial feeding, and food plots? (Are they the same? Are some fair and others not? etc.)
3. How prevalent is deer feeding in Maine? For those who feed, what are they feeding, what time of the year are they feeding, and what do they spend on feed each year?
4. Given various threats (CWD, deer-vehicle collisions, etc.), what management actions would Mainers support with regard to deer feeding? (Ban if CWD is found, ban sale of feed, regulate how feeding can be done, etc. Also, include spatial element, i.e. statewide actions vs. actions only in problem areas.)

# Methods

## Data Collection

A self-administered questionnaire (Appendix B) was designed and distributed by mail to a random sample of 2,000 Maine residents using an Address-Based Sample (ABS); ABS provides the best possible coverage (nearly 100% of postal households) of households (Dillman, 2007; Dillman et al., 2009). The sampling frame, used by Responsive Management for the 2016 big game perceptions survey, was slightly altered in order to produce data that is comparable to this recent survey (Responsive Management, 2016). The State of Maine was divided into two regions; Northern and Southern. 1,000 questionnaires were mailed to residents in northern Maine. The southern Maine region was divided into two: 500 questionnaires were mailed to residents of the city of Portland, and 500 were mailed to residents in other parts of southern Maine. Of the 2,000 survey packages mailed to Maine residents, 164 survey packets were returned to our mailing facility because the address was marked as vacant. The overall response rate was 17% (316/1,836).

## Questionnaire Design

The questionnaire was composed of both closed-ended and open-ended questions. Using the modified Dillman Method, the survey was distributed using the following procedure: (1) an introductory letter was sent to all participants (Appendix A), (2) a survey package was sent—including a cover letter, informed consent form, the survey booklet, and a return postmarked envelope, and (3) two weeks after the initial survey package, an additional survey package was sent (Dillman, 2007; Dillman et al., 2009). Participants could also opt-in to the study by completing the survey online; a URL was provided in each mailing. Sending three mailings have shown to significantly increase response rate.

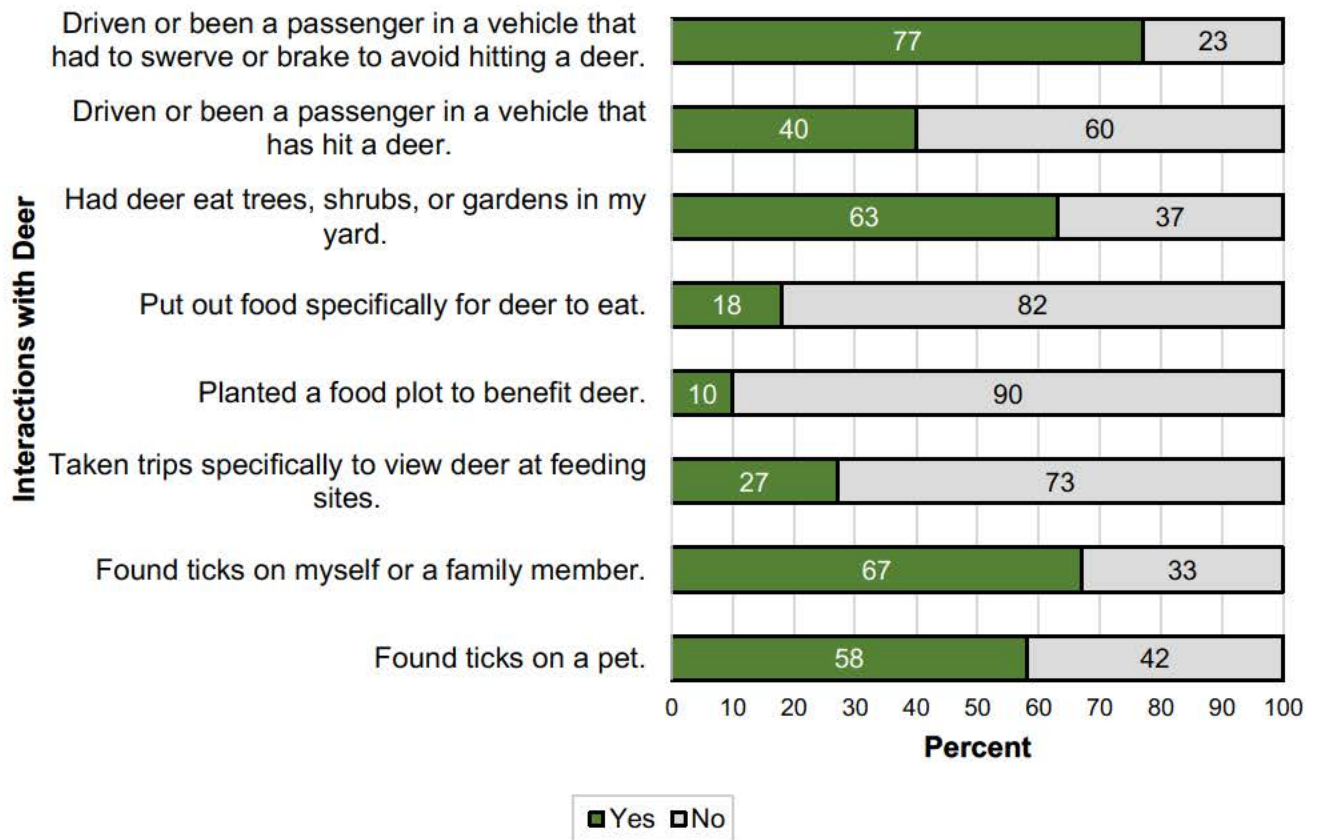
The questionnaire contained 36 questions and is provided for reference in Appendix B.

## Results

This section contains graphic depictions of the results found in this study. The results in this section were selected due to their relevance to management entities. Note that all graphs and legends should be read from left to right. For a complete summary of our results, please see Appendix C.

### General Experiences & Perceptions of Deer

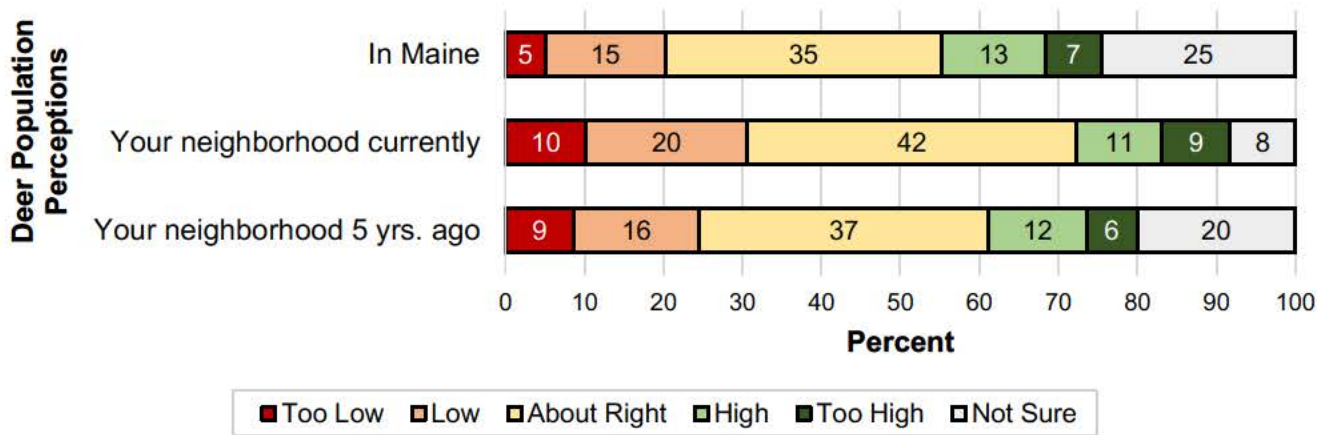
When asked about their experiences with deer, the majority of respondents reported having a variety of different interactions with deer (Figure 1). Most respondents reported interactions with deer while driving, deer eating greenery, and interactions with ticks.



**Figure 1.** The percentages of different types of experiences respondents have had with deer in Maine.

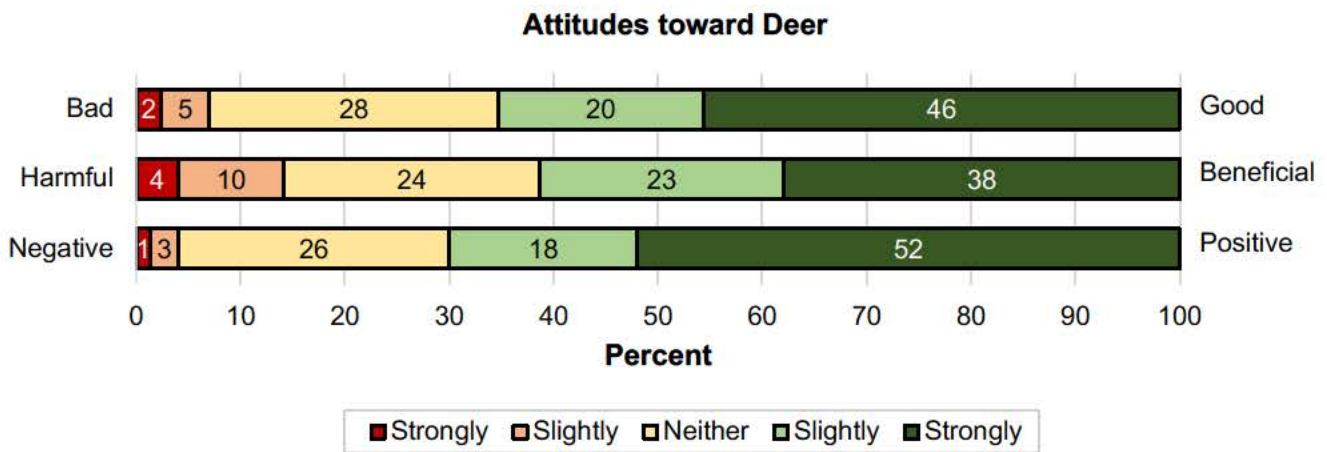


The majority of respondents' descriptions of the deer population indicated that the population is 'about right' or 'low' throughout Maine (Figure 2).



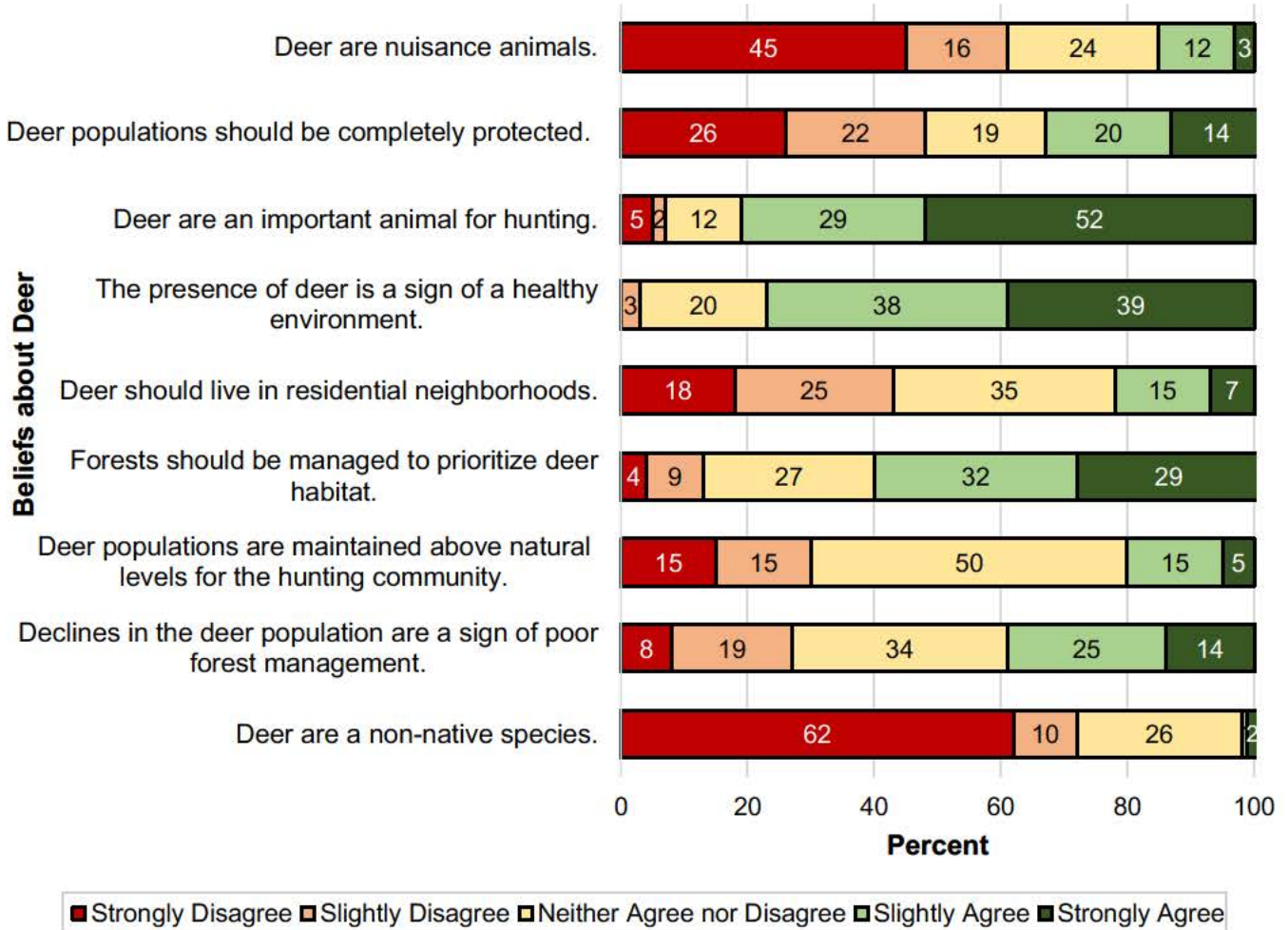
**Figure 2.** Percentage of respondents who described the deer population relative to the following: (a) in Maine, (b) currently in their neighborhood, and (c) their neighborhood five years ago.

When asked about their attitudes toward deer, the majority of respondents reported favorable attitudes toward deer (Figure 3); a small percentage of the overall sample indicated that they have unfavorable attitudes toward deer.



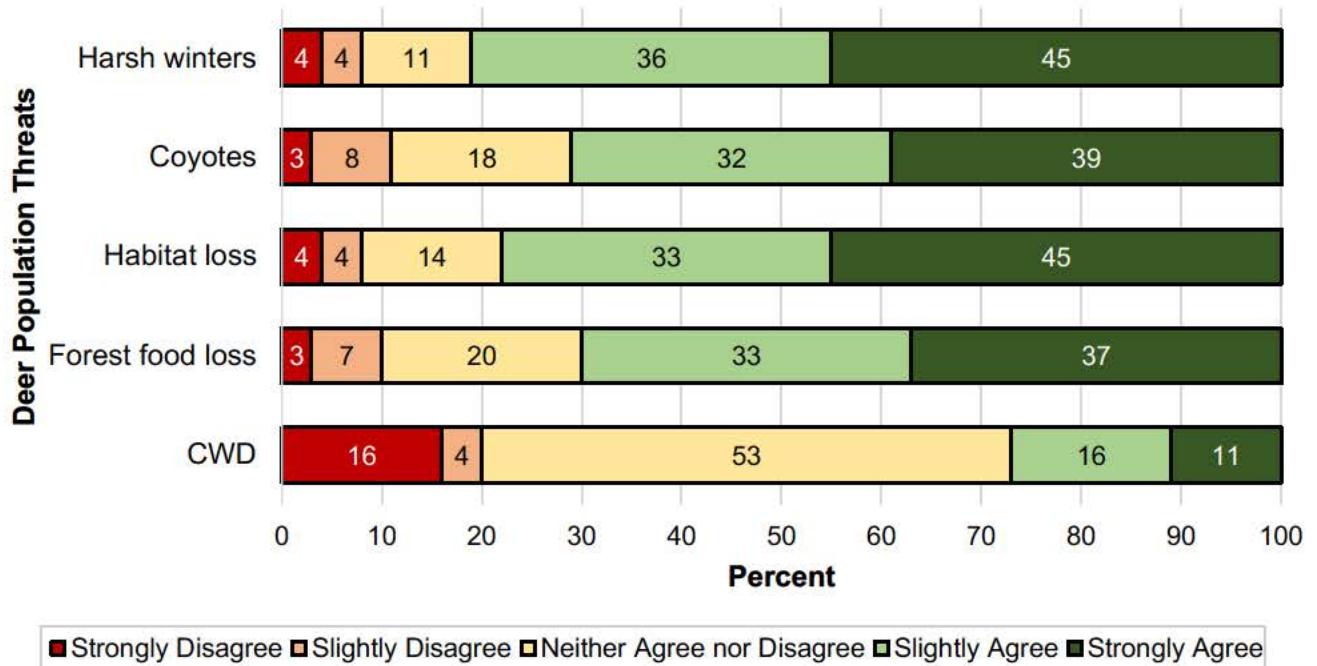
**Figure 3.** Percentage of respondents who feel specific attitudes toward deer.

The overall trend in respondents' beliefs about deer in Maine was largely positive (Figure 4). Respondents overwhelmingly agreed that deer are an important animal for hunting and that deer presence is a sign of a healthy environment. Notably, 43% of respondents believe that deer should not live in residential neighborhoods.



**Figure 4.** Percentage of respondents who believe the following about deer in Maine: (a) deer are nuisance animals, (b) deer populations should be completely protected, (c) deer are an important animal for hunting, (d) the presence of deer is a sign of a healthy environment, (e) deer should live in residential neighborhoods, (f) forests should be managed to prioritize deer habitat, (g) deer populations are maintained above natural levels for the hunting community, (h) declines in the deer population are a sign of poor forest management, and (i) deer are a non-native species.

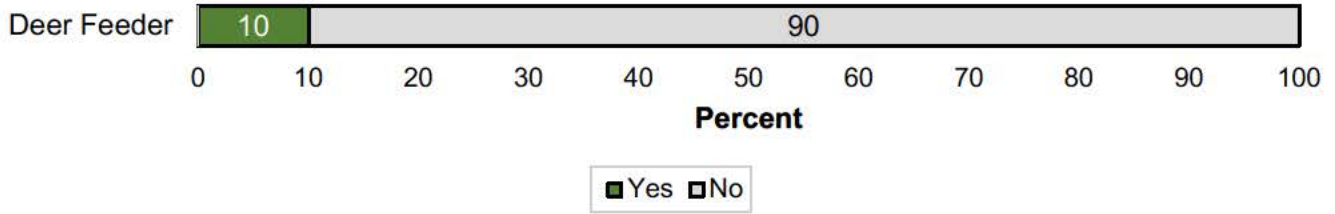
When asked about threats to the deer population’s survival, respondents largely agreed that all of the options presented, except CWD, were a threat to deer survival (Figure 5). More than half of respondents indicated that they *neither agree nor disagree* with CWD being a threat to the deer population.



**Figure 5.** Percentage of respondents who believe the deer population in Maine is threatened by the following: (a) harsh winters, (b) coyotes, (c) loss of habitat, (d) loss of available food in forests, and/or (e) Chronic Wasting Disease.

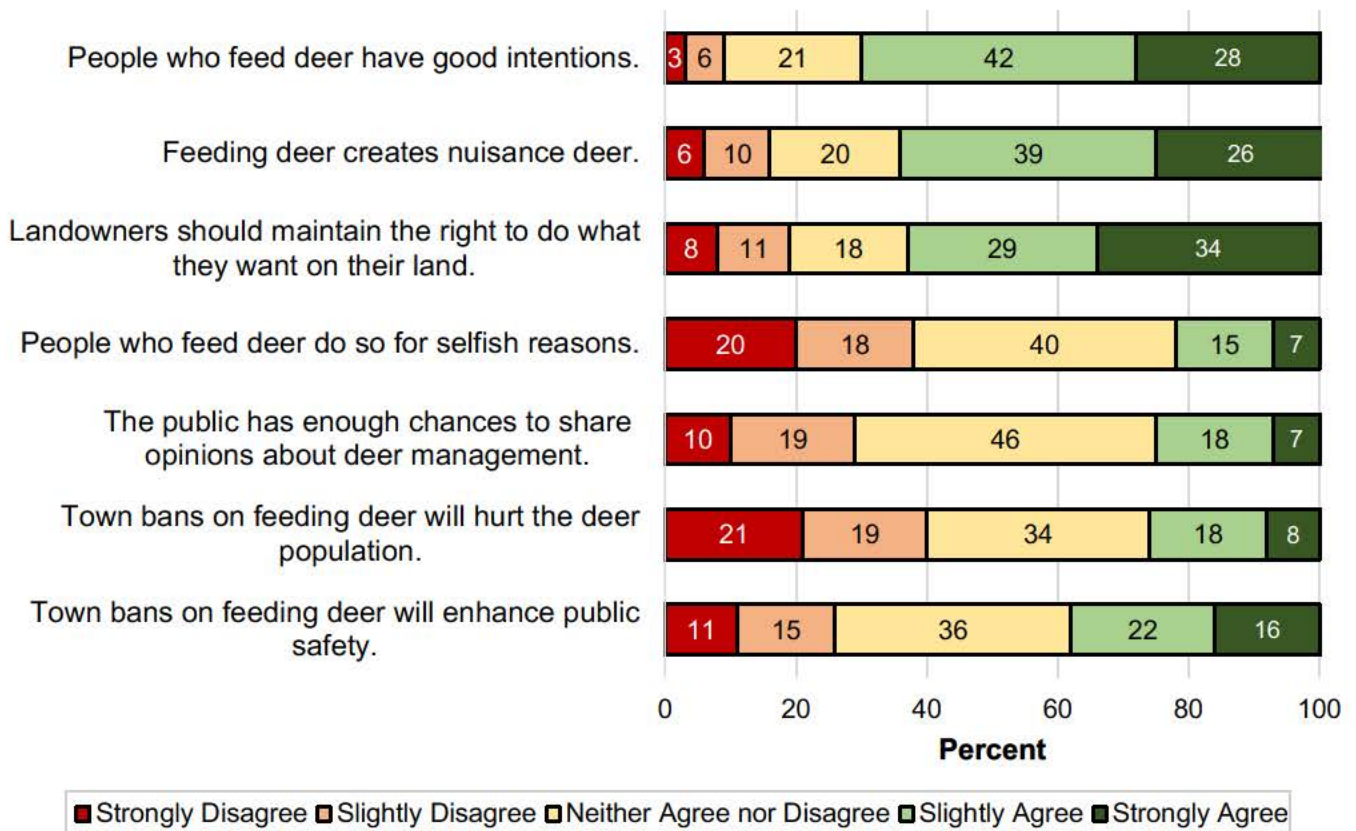
## Deer Feeding Demographics & Perceptions

The majority of respondents (n = 280; Figure 6) indicated that they do not feed deer while 10% said they did (n = 30).



**Figure 6.** Percentage of respondents who feed deer.

The overall trend of respondents' beliefs about people who feed deer was positive, but there were options with mixed responses (Figure 7). The majority of respondents indicated that people who feed deer have good intentions, however, 65% of respondents also indicated that feeding deer creates nuisance deer and 38% indicated that town bans on deer feeding would enhance public safety.

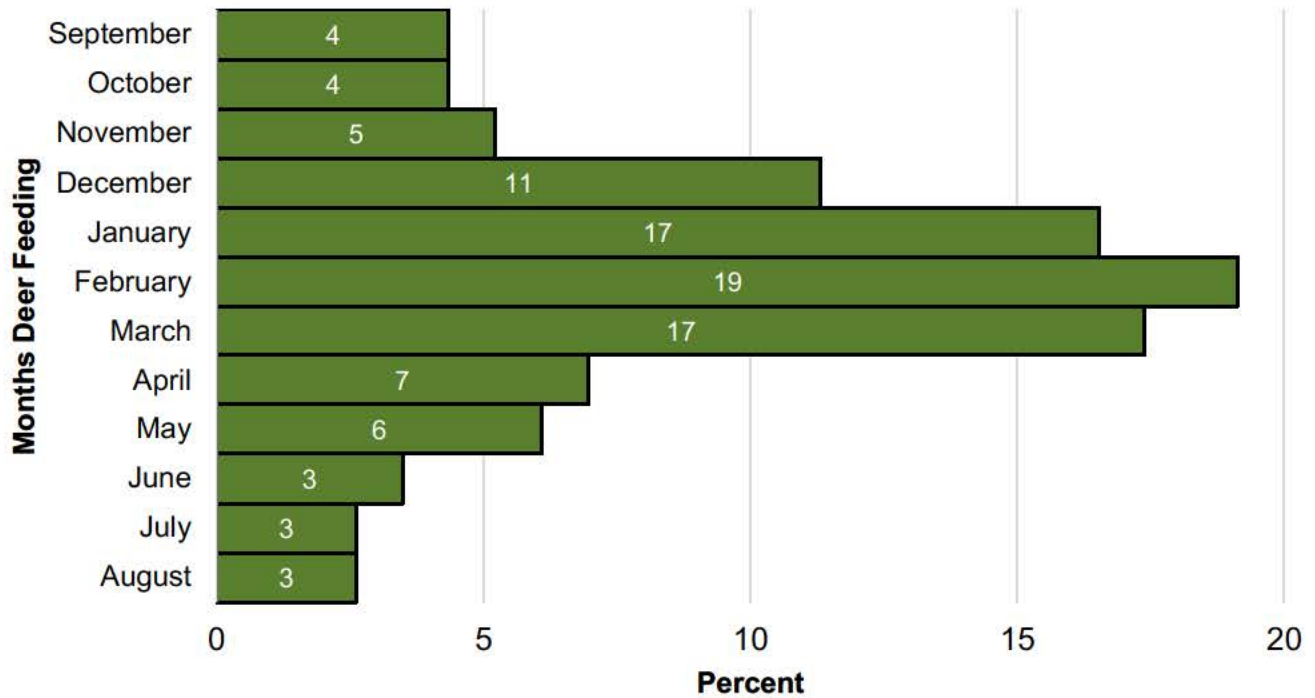


**Figure 7.** Percentage of respondents who believe the following about people who feed deer: (a) people who feed deer have good intentions, (b) feeding deer creates nuisance deer, (c) landowners should maintain the right to do what they want on their land, (d) people who feed deer do so for selfish reasons, (e) the public has enough chances to share opinions about deer management, (f) town bans on feeding deer will hurt the deer population, and/or (g) town bans on feeding deer will enhance public safety.

### Deer Feeder Demographics

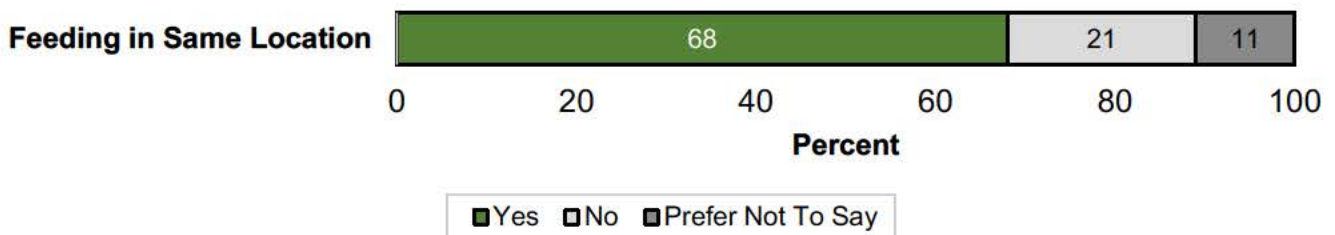
If a respondent indicated that they feed deer, they were prompted to answer questions about their deer feeding practices. The results compiled below display answers only from those that indicated that they feed deer in Maine (10% of respondents; Figure 6).

The majority of self-identified deer feeders in Maine feed deer in the winter and early spring (Figure 8): December, January, February, and March.



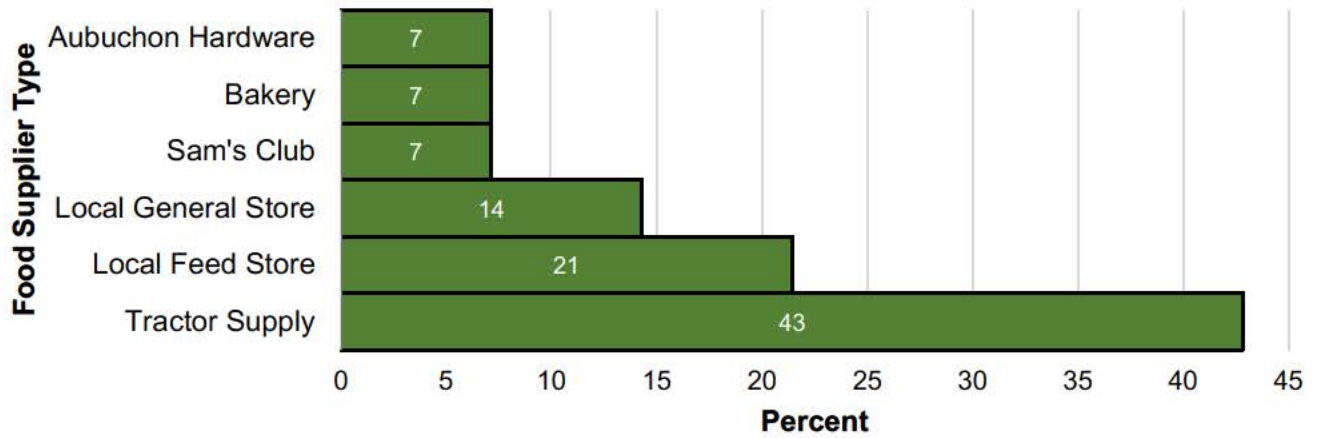
**Figure 8.** Percentage of self-identified deer feeders who feed during specific months of the year: (a) September, (b) October, (c) November, (d) December, (e) January, (f) February, (g) March, (h) April, (i) May, (j) June, (k) July, and (l) August.

The majority of self-identified deer feeders in Maine feed deer in the same location each year (Figure 9).



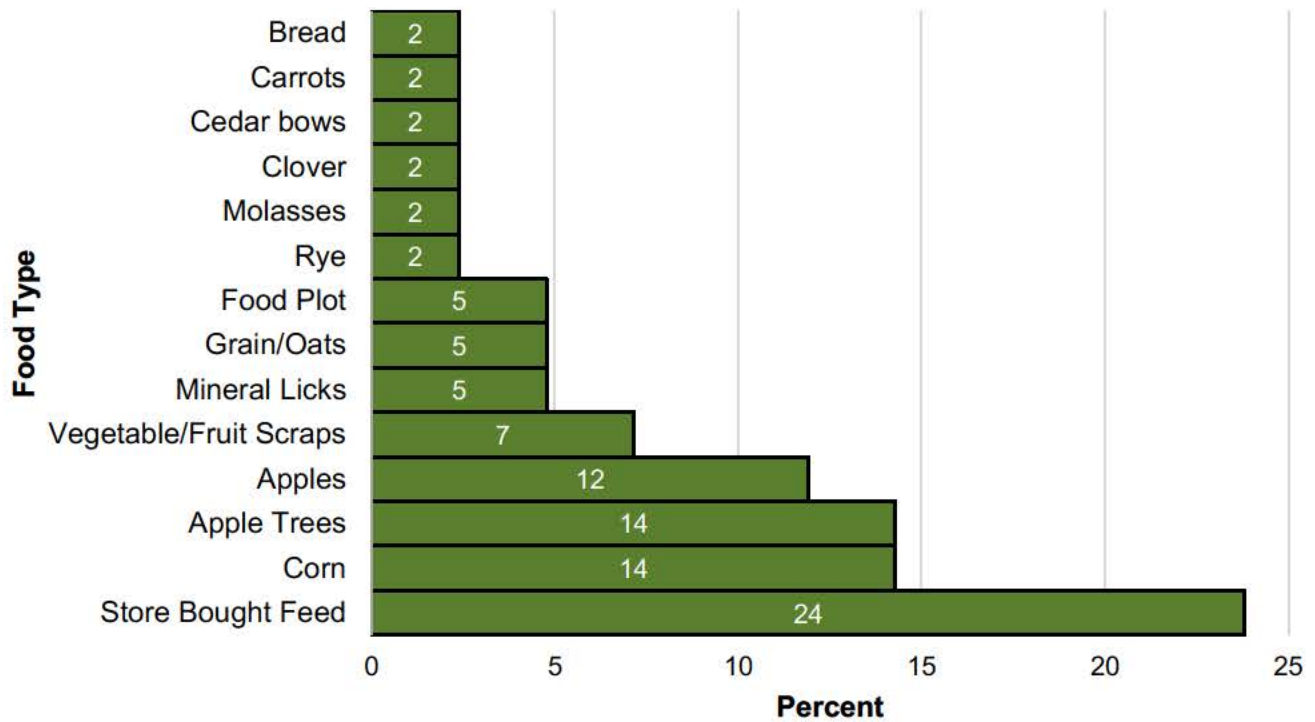
**Figure 9.** Percentage of self-identified deer feeders who feed deer in the same location each year.

The majority of self-identified deer feeders purchase their deer feed from Tractor Supply Company (Figure 10). All written responses regarding where self-identified deer feeders acquire their deer food were included.



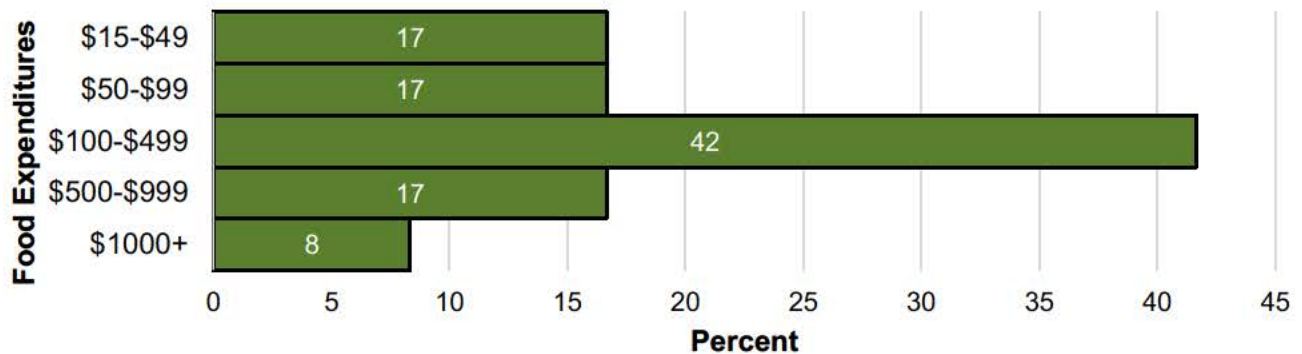
**Figure 10.** Percentage of self-identified deer feeders who purchase deer feed from the following supplier types (all categories were created based on written responses): (a) Aubuchon Hardware Company, (b) a bakery, (c) Sam's Club, (d) a local general store, (e) a local feed store, and (f) Tractor Supply Company.

The most popular food type fed by self-identified deer feeders was store bought feed followed by corn and apple trees/apples (Figure 11). All written responses regarding deer food types that self-identified deer feeders use were included.



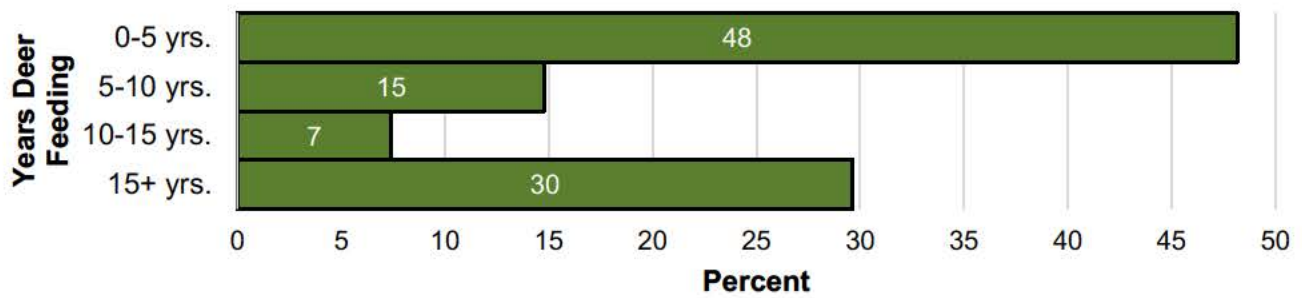
**Figure 11.** Percentage of self-identified deer feeders who use specific food types from the following categories (all categories were created based on written responses): (a) bread, (b) carrots, (c) cedar bows, (d) clover, (e) molasses, (f) rye, (g) food plots, (h) grains/oats, (i) mineral licks, (j) vegetable/fruit scraps, (k) apples, (l) apples, (m) apple trees, (n) corn, and (o) store bought feed.

The majority of self-identified deer feeders spend between \$100-\$499 on deer feeding each year (Figure 12). All written responses regarding the amount of money that self-identified deer feeders spend on deer feeding annually were included.



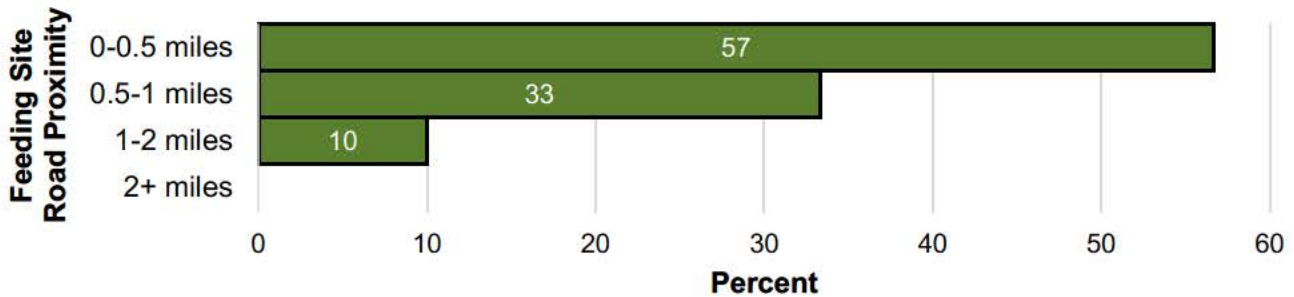
**Figure 12.** Percentage of self-identified deer feeders' annual deer feeding expenditures (all categories were created based on written responses): (a) \$15-\$49, (b) \$50-\$99, (c) \$100-\$499, (d) \$500-\$999, and (e) \$1,000 or more.

The majority of self-identified deer feeders began feeding within the last five years (Figure 13).



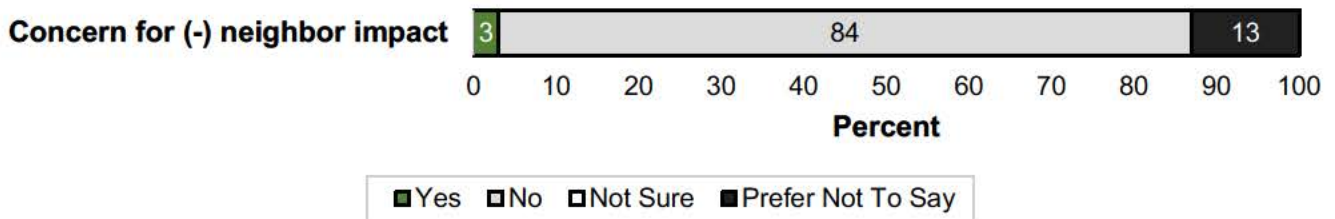
**Figure 13.** Percentage of the range of years that self-identified deer feeders' have been feeding deer: (a) 0-5 years, (b) 5-10 years, (c) 10-15 years, (d) 15 or more years.

The majority of self-identified deer feeders feed within 0-0.5 miles from a town road or state highway (Figure 19). Notably, no self-identified deer feeders reported feeding farther than 2 or more miles from a town road or state highway.



**Figure 19.** Percentage of self-identified deer feeders who feed within the following distances to a town road or state highway: (a) 0-0.5 miles, (b) 0.5-1 miles, (c) 1-2 miles, (d) 2 or more miles.

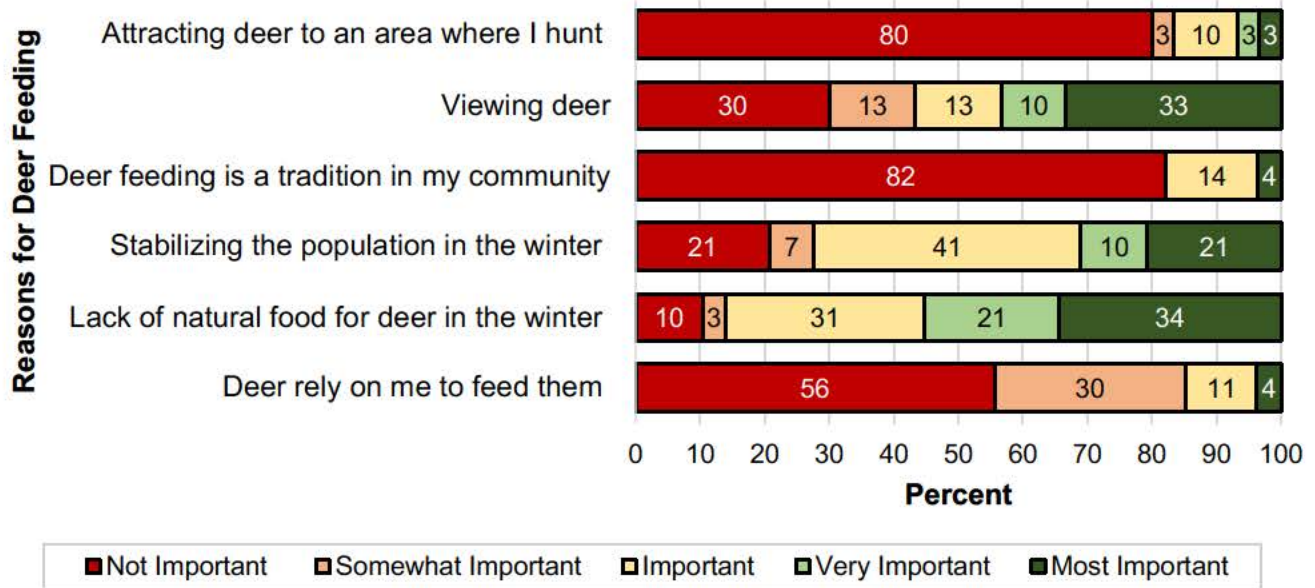
The majority of self-identified deer feeders reported that they believe that their deer feeding practices are probably not negatively impacting their neighbors (Figure 20).



**Figure 20.** Percentage of self-identified deer feeders who believe that their deer feeding practices probably does not negatively impact their neighbors.



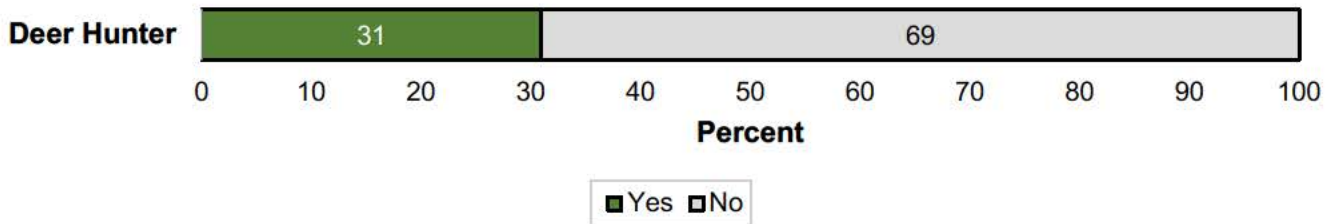
Self-identified deer feeders indicated that viewing deer, stabilizing the population in the winter, and their belief that there is a lack of natural food for deer in the winter were among the most important reasons for feeding deer (Figure 21). Somewhat contradictory to these reasons, 56% of self-identified deer feeders indicated that feeding deer because deer rely on them for food was not important. Additionally, the majority of self-identified deer feeders indicated that attracting deer to a hunting area and community tradition were not important reasons for deer feeding.



**Figure 21.** Percentage of self-identified deer feeders who indicated how important the following reasons for deer feeding are to them: (a) attracting deer to an area where I hunt, (b) viewing deer, (c) deer feeding is a tradition in my community, (d) stabilizing the population in the winter, (e) lack of natural food for deer in the winter, and (f) deer rely on me to feed them.

## Deer Hunter Perceptions

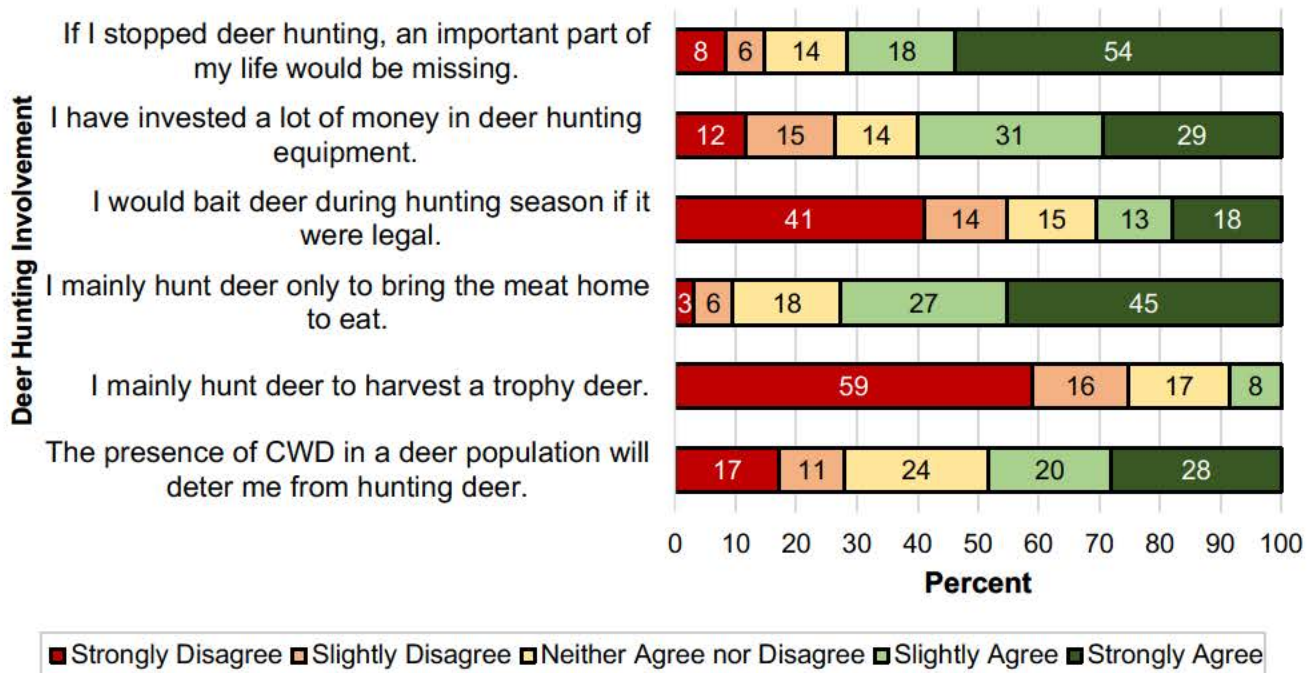
Just over two-thirds of respondents indicated that they do not hunt deer (Figure 22).



**Figure 22.** Percentage of respondents who hunt deer.

If a respondent indicated that they hunt deer, they were prompted to answer a question about their involvement with deer hunting (Figure 22). The results compiled below display answers only from those who indicated that they hunt deer in Maine (31% of respondents).

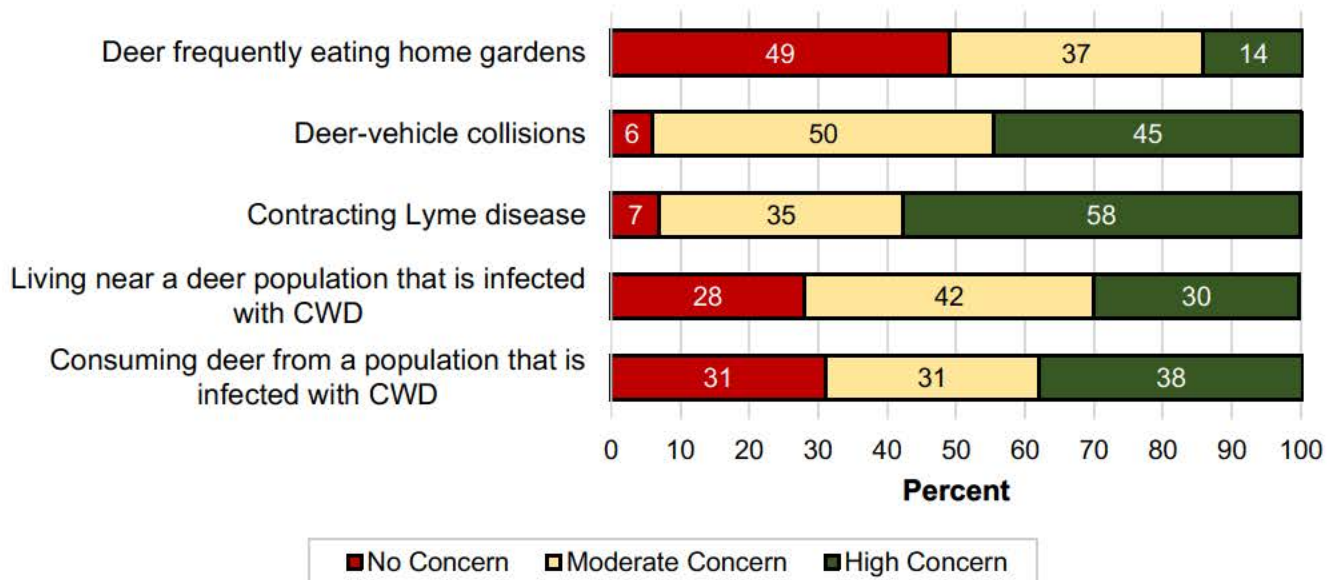
The majority of self-identified deer hunters indicated that deer hunting is an important activity in their lives, they have spent a lot of money on deer hunting equipment, and that hunting deer for meat are central reasons for why they hunt deer (Figure 23). 55% of self-identified deer hunters agreed that they would not bait deer if it were legal.



**Figure 23.** Percentage of self-identified deer hunters who indicated how much they agree with the following about their involvement with deer hunting: (a) if they stopped deer hunting, an important part of their life would be missing, (b) they have invested a lot of money in deer hunting equipment, (c) they would bait deer during hunting season if it were legal, (d) they mainly hunt deer only to bring the meat home to eat, (e) they mainly hunt deer to harvest a trophy deer, and (f) the presence of Chronic Wasting Disease in a deer population would deter them from hunting deer.

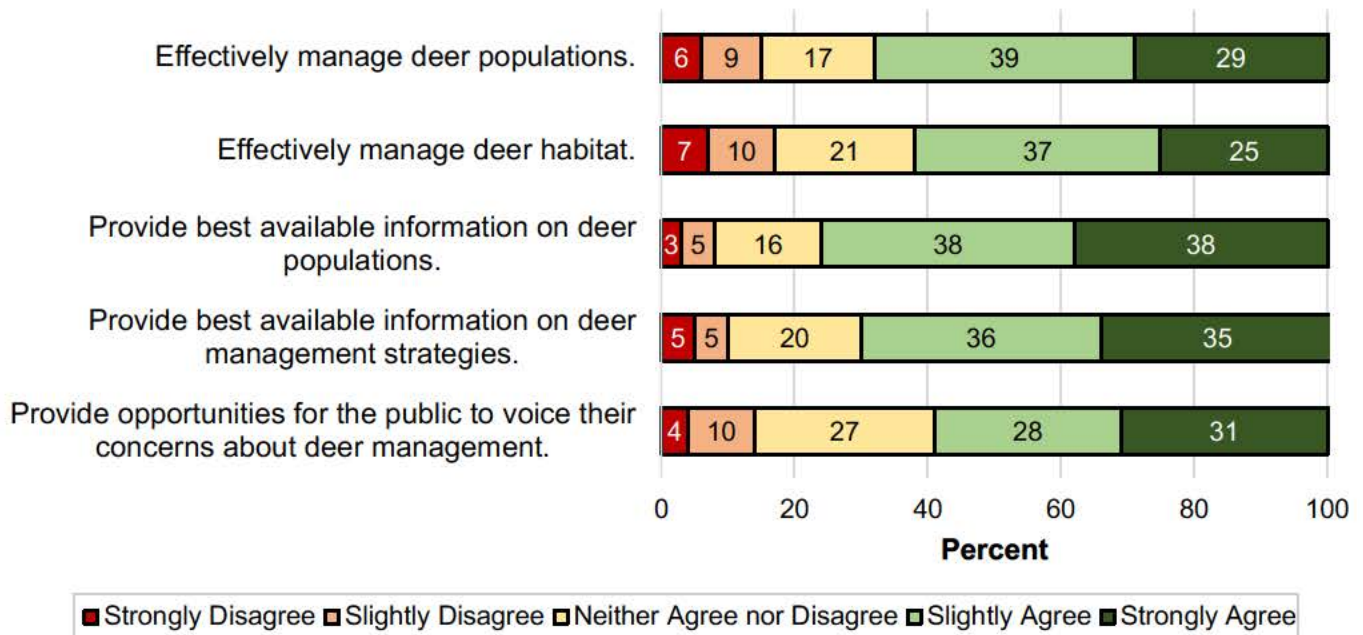
## Deer Management Perceptions

Overall, respondents indicated that their greatest concerns are contracting Lyme disease and deer-vehicle collisions (Figure 24).



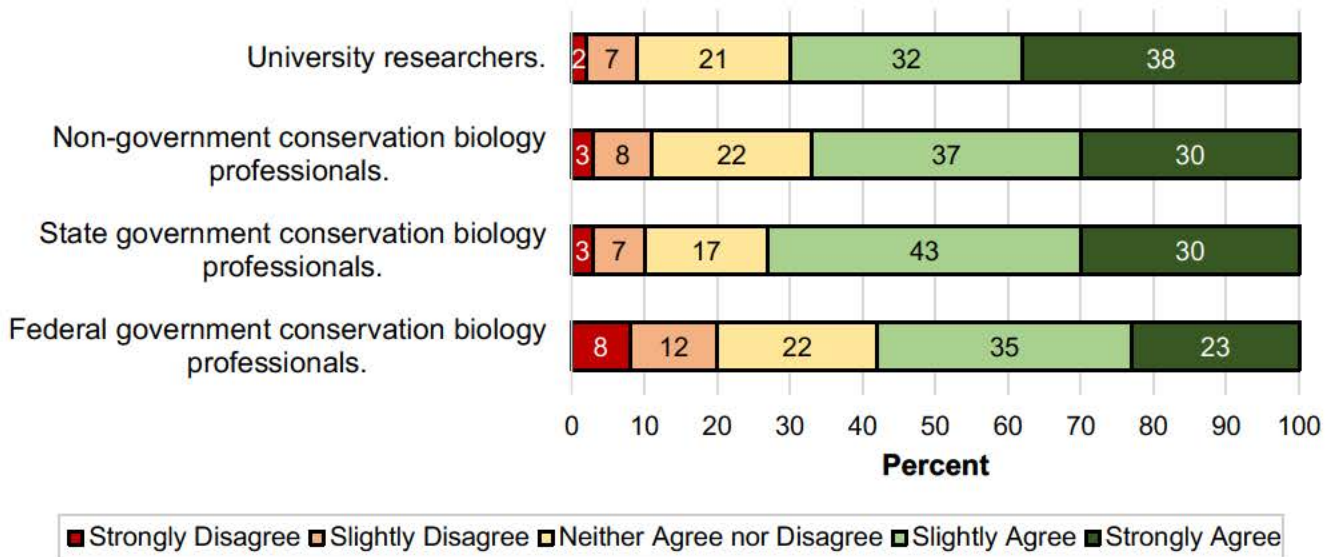
**Figure 24.** Percentage of respondents who were concerned about the following in terms of public health and safety: (a) deer frequently eating home gardens, (b) deer-vehicle collisions, (c) contracting Lyme disease, and/or (d) consuming deer from a population that is infected with CWD.

When asked about their trust in MDIFW, respondents indicated positive perceptions of trust in the agency's abilities to effectively manage deer and engage with the public about deer management (Figure 25).



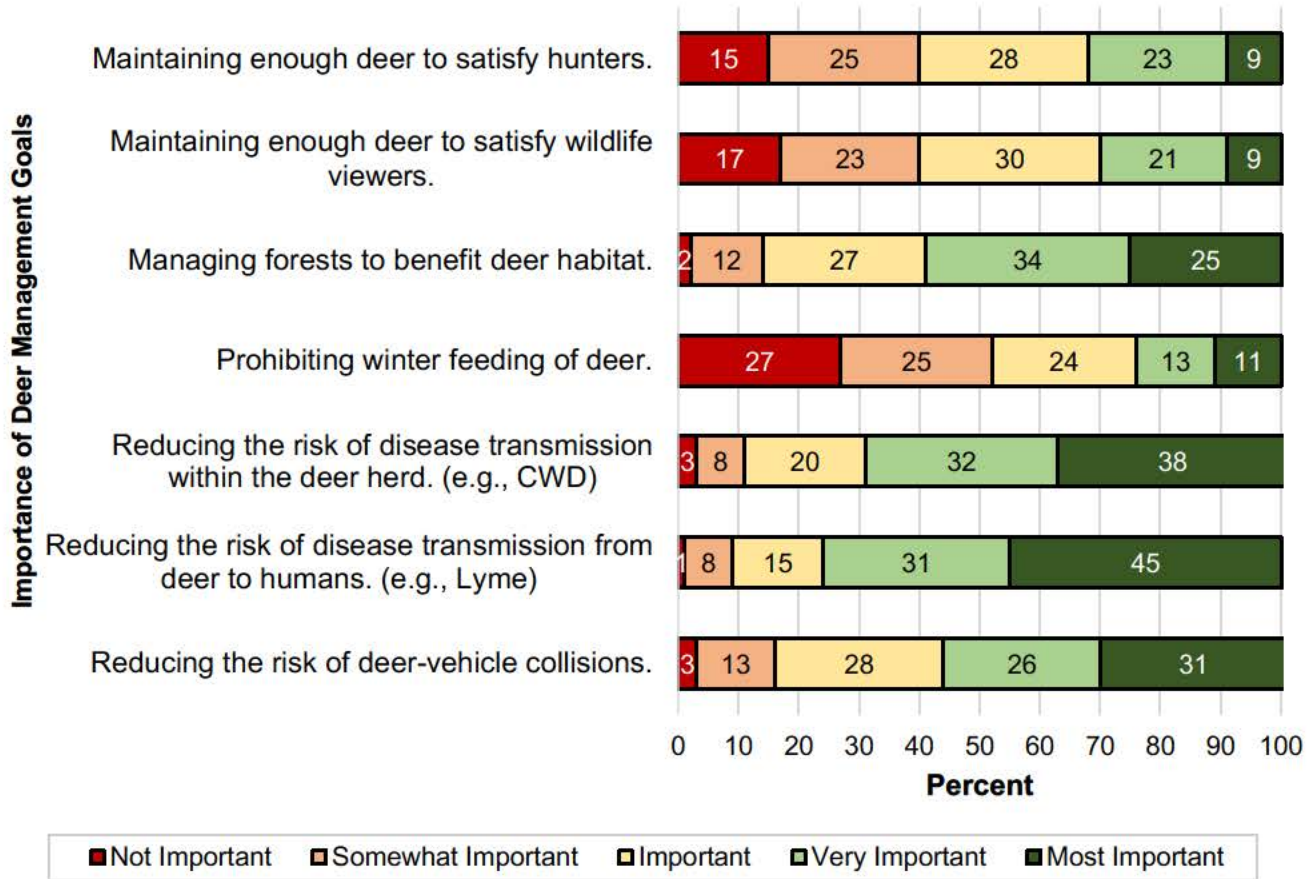
**Figure 25.** Percentage of respondents who trust MDIFW to do the following: (a) effectively manage deer populations, (b) effectively manage deer habitat, (c) provide best available information on deer populations, (d) provide best available information on deer management strategies, and/or (e) provide opportunities for the public to voice their concerns about deer management.

When asked about their trust in relevant information sources, respondents indicated positive perceptions of trust for all options (Figure 26). Respondents indicated that they trust information from federal government conservation biology professionals slightly less than the other options.



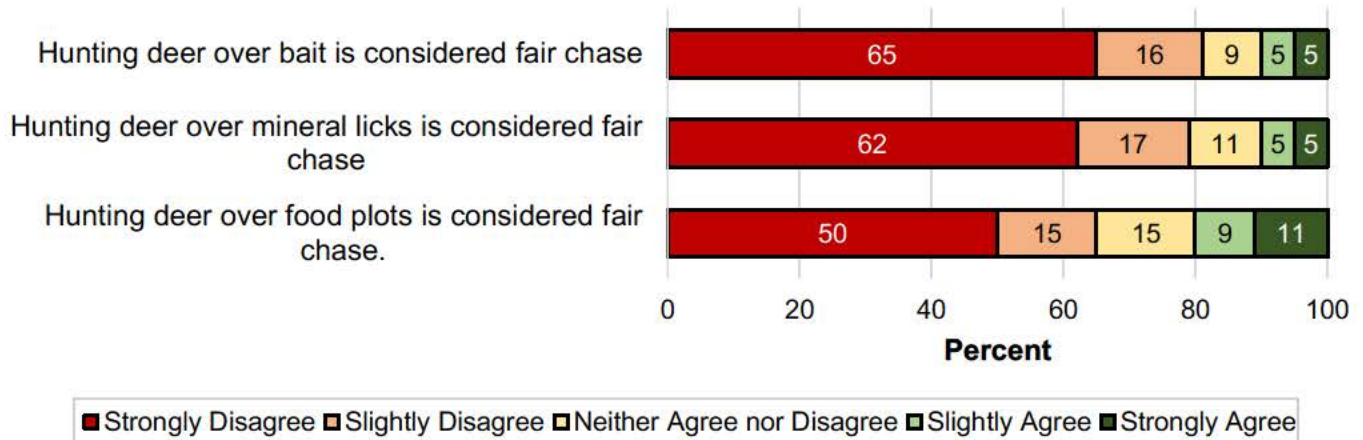
**Figure 26.** Percentage of respondents who trust the following relevant information sources: (a) university researchers, (b) non-government conservation biology professionals, (c) state government conservation biology professionals, and (d) federal government conservation biology professionals.

Respondents' perceptions of the importance of specific deer management goals revealed a trend in agreement surrounding three management goals: reducing disease transmission, reducing deer-vehicle collisions, and managing forests to benefit deer habitat (Figure 27). Respondents indicated that prohibiting winter deer feeding was the least important management goal. Maintaining enough deer to satisfy hunters and wildlife viewers were also identified as less important management goals.



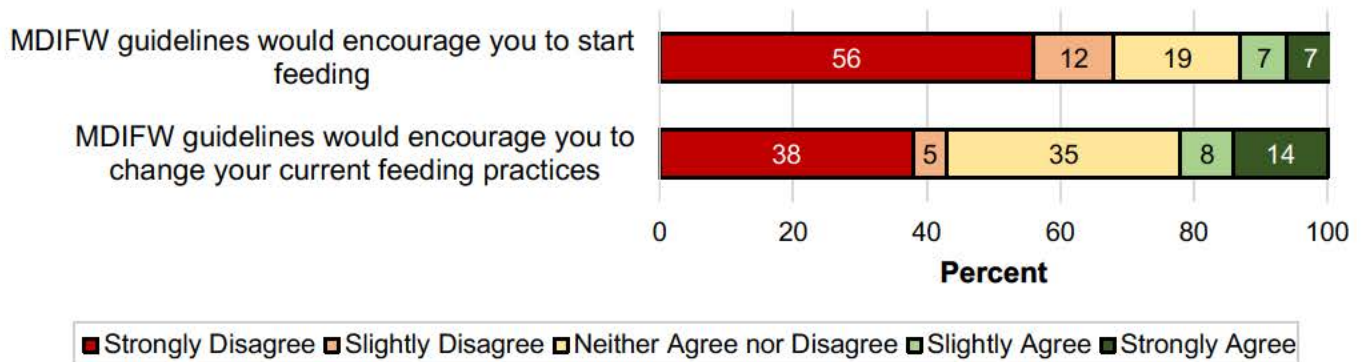
**Figure 27.** Percentage of respondents who consider the following important in terms of deer management: (a) maintaining enough deer to satisfy hunters, (b) maintaining enough deer to satisfy wildlife viewers, (c) managing forests to benefit deer habitat, (d) prohibiting winter feeding of deer, (e) reducing the risk of disease transmission within the deer herd (e.g., Chronic Wasting Disease), (f) reducing the risk of disease transmission from deer to humans (e.g., Lyme Disease), and/or (g) reducing the risk of deer-vehicle collisions.

When respondents were prompted to consider how much they agreed that feeding deer with bait, mineral licks, and/or food plots in order to hunt deer was considered fair chase, the majority of respondents indicated that all three activities were not considered fair chase hunting (Figure 28). Hunting deer over food plots was the most acceptable practice of the three options. Respondents were provided with the following definitions of the three feeding types: **bait** can be any animal, plant, or a part of an animal or plant used to attract wild animals for the purpose of hunting, **mineral licks** are typically blocks of salt provided to attract deer for the purpose of hunting, and **food plots** are standing crops of grain, fruit, nuts, or other foods known to be attractive to deer.



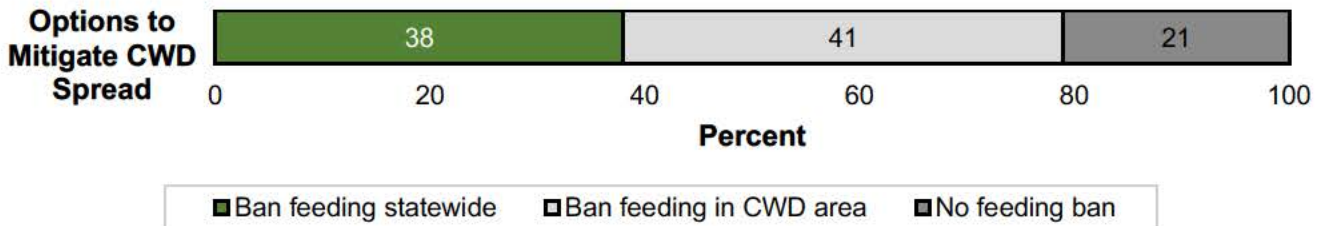
**Figure 28.** Percentage of respondents who consider hunting deer over the following as fair chase hunting: (a) bait, (b) mineral licks, and (c) food plots.

When presented with the information that MDIFW has major concerns about feeding deer, such as increased deer-vehicle collisions, risk of disease spread amongst deer, impacts of certain feed on deer health, etc., the majority of respondents indicated that MDIFW deer feeding guidelines would not encourage them start feeding deer (Figure 29). Notably, 38% of respondents indicated that MDIFW deer feeding guidelines would not change the way they feed deer currently.



**Figure 29.** Percentage of respondents who considered whether MDIFW deer feeding guidelines would encourage them to do the following: (a) start feeding deer and (b) change the way they feed currently.

When presented with the information that professional wildlife biologists believe that CWD spreads by direct deer-to-deer contact, 41% of respondents indicated that a ban on deer feeding in CWD infected areas (4 miles surrounding area where deer with CWD was identified) was the most appealing option to mitigate the spread of CWD throughout Maine (Figure 30). 38% of respondents indicated that a state-wide ban on deer feeding was the most appealing option to limit the spread of CWD.



**Figure 30.** Percentage of respondents who selected one of the following options as their preference for how to limit the spread of CWD: (a) ban feeding state-wide (it should remain legal state-wide), (b) feeding deer should be banned only in CWD infected areas (4 miles surrounding area where deer with CWD was identified), and (c) feeding deer should be banned state-wide

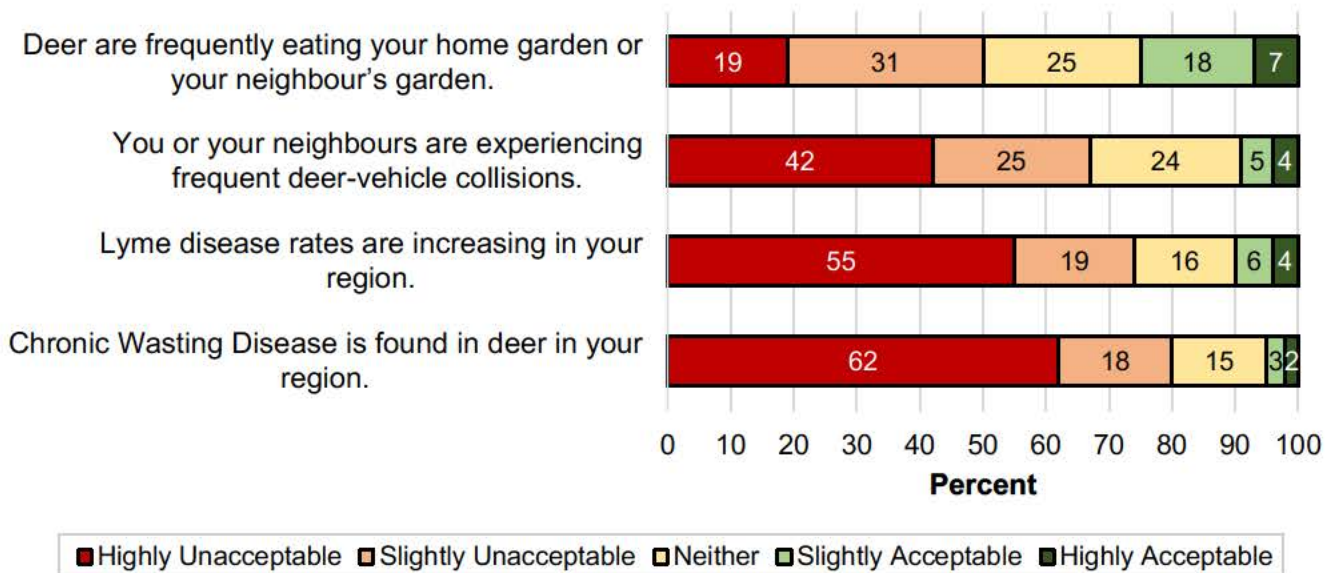
### Deer Management Scenarios

Respondents were asked to give their opinions about four scenarios:

1. Deer are frequently eating your home garden or your neighbor’s garden;
2. You or your neighbors are experiencing frequent deer-vehicle collisions;
3. Lyme disease rates are increasing in your region; and
4. Chronic Wasting Disease is found in deer in your region.

### Scenario Acceptability

More than half of all respondents indicated that all of the scenarios were highly or slightly unacceptable. CWD presence, Lyme presence, and deer-vehicle collisions were ranked the most unacceptable scenarios of the four (Figure 31)..

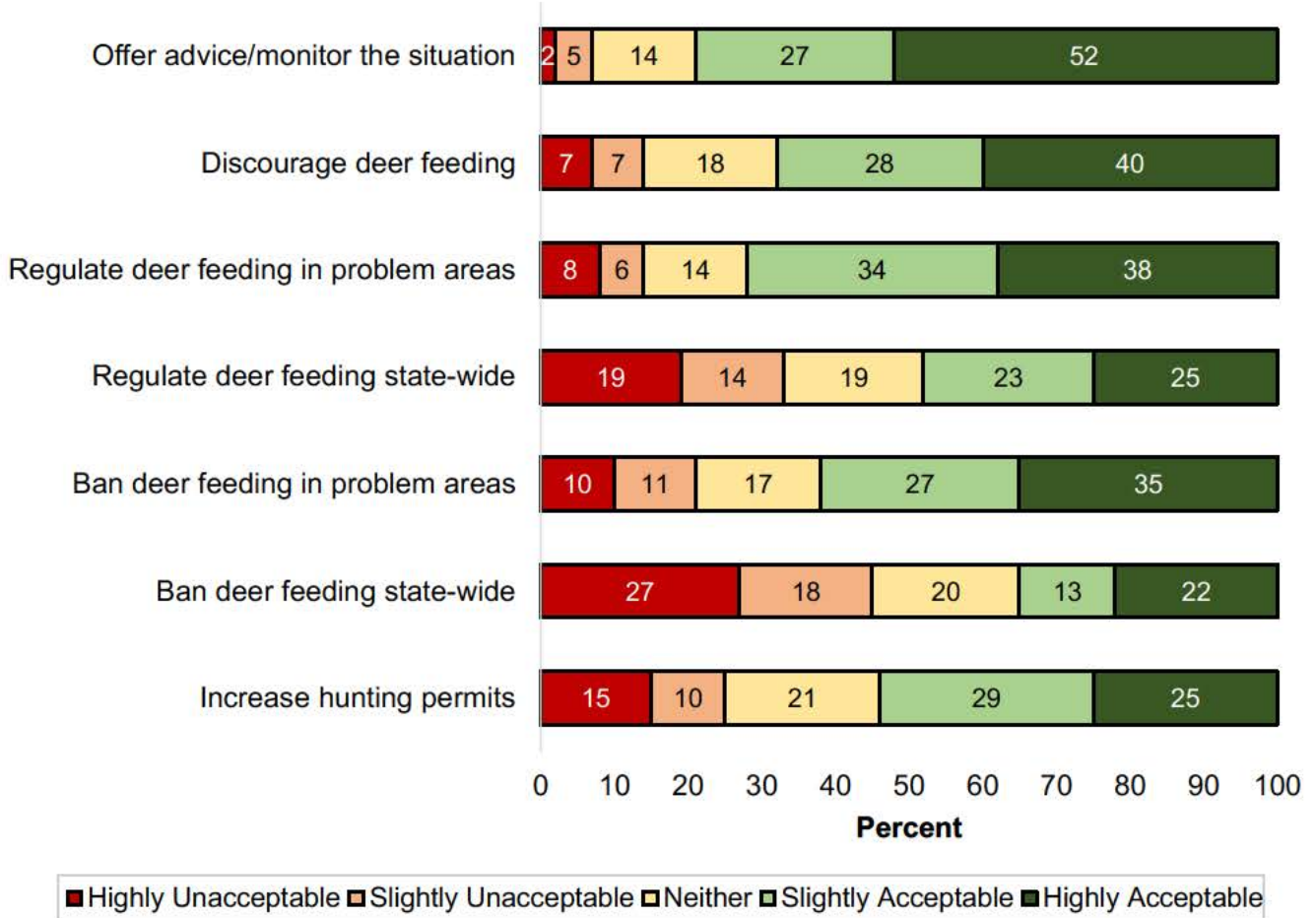


**Figure 31** Percentage of respondents’ acceptability of the four scenarios.



**Scenario 1**

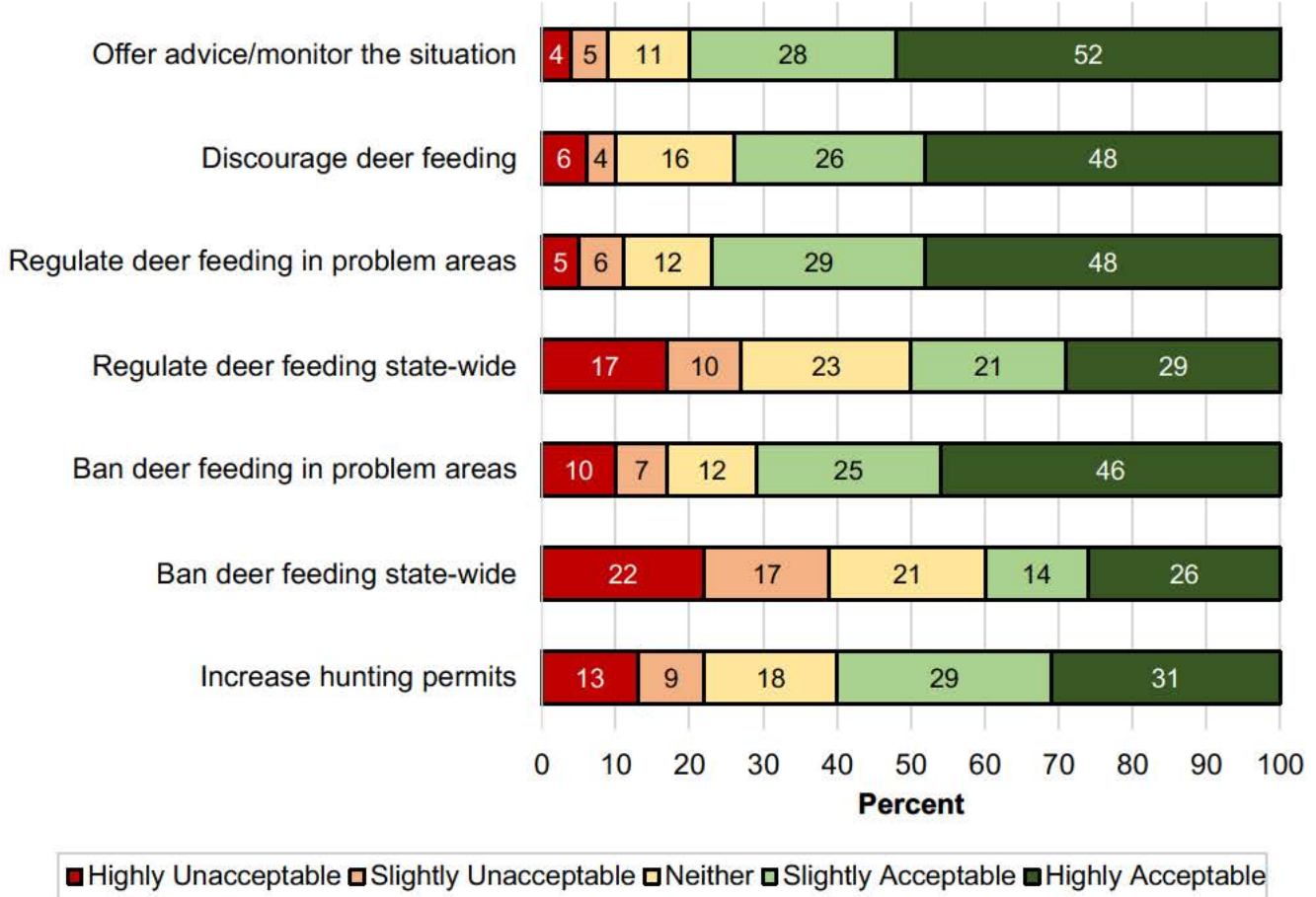
For Scenario 1, deer are frequently eating home gardens, there was a range of acceptability for all possible management actions (Figure 32). Offering advice/monitoring the situation and regulating deer feeding in problem areas were the most acceptable management actions, while regulating deer feeding state-wide and banning deer feeding state-wide were the least acceptable management actions.



**Figure 32.** Percentage of respondents who consider the following management actions acceptable when deer are frequently eating their home gardens or their neighbor’s garden: (a) offer advice/monitor the situation, (b) discourage deer feeding, (c) regulate deer feeding in problem areas, (d) regulate deer feeding state-wide, (e) ban deer feeding in problem areas, (f) ban deer feeding state-wide, and (g) increase hunting permits.

**Scenario 2**

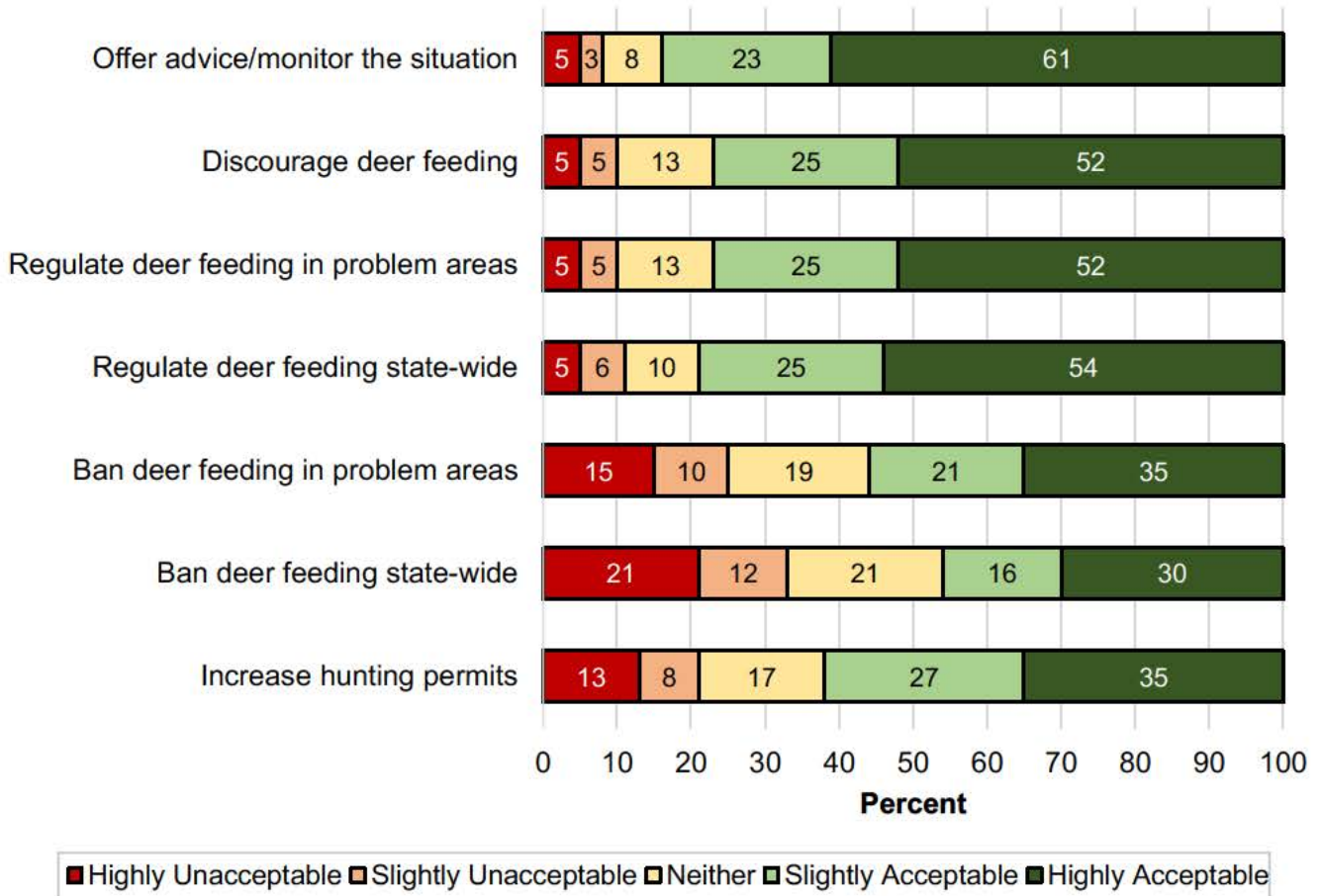
For Scenario 2, deer-vehicle collisions are occurring frequently, results were in line with responses to Scenario 1; however, respondents indicated slightly more acceptability for all management options than in Scenario 1 (Figure 33). Regulating deer feeding state-wide and banning deer feeding state-wide were the least acceptable management actions.



**Figure 33.** Percentage of respondents who consider the following management actions acceptable when they or their neighbors are experiencing frequent deer-vehicle collisions: (a) offer advice/monitor the situation, (b) discourage deer feeding, (c) regulate deer feeding in problem areas, (d) regulate deer feeding state-wide, (e) ban deer feeding in problem areas, (f) ban deer feeding state-wide, and (g) increase hunting permits.

**Scenario 3**

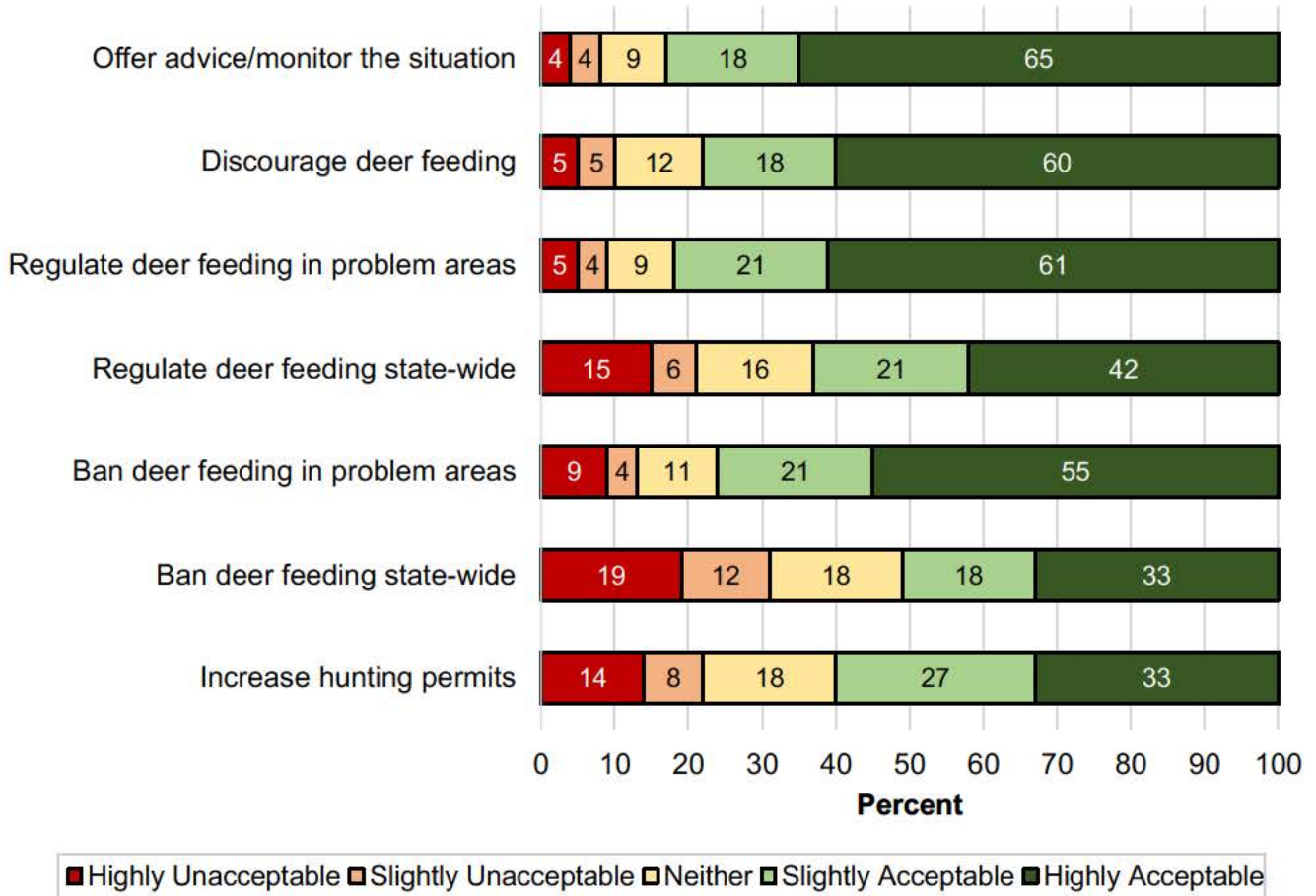
For Scenario 3, increasing Lyme disease rates, respondents indicated strong acceptability for all management actions (Figure 34). Notably, 33% of respondents indicated that banning deer feeding state-wide was an unacceptable management action.



**Figure 34.** Percentage of respondents who consider the following management actions acceptable when Lyme disease rates are increasing in their region: (a) offer advice/monitor the situation, (b) discourage deer feeding, (c) regulate deer feeding in problem areas, (d) regulate deer feeding state-wide, (e) ban deer feeding in problem areas, (f) ban deer feeding state-wide, and (g) increase hunting permits.

**Scenario 4**

For Scenario 4, presence of CWD, acceptability of all possible management actions parallels the acceptability of management actions for Scenario 3 with two exceptions. Respondents indicated that regulating deer feeding state-wide due to the presence of CWD was slightly less acceptable than it was for Lyme disease presence (Figure 35). Additionally, respondents indicated that banning deer feeding in problem areas was more acceptable in this scenario than it was in Scenario 3.

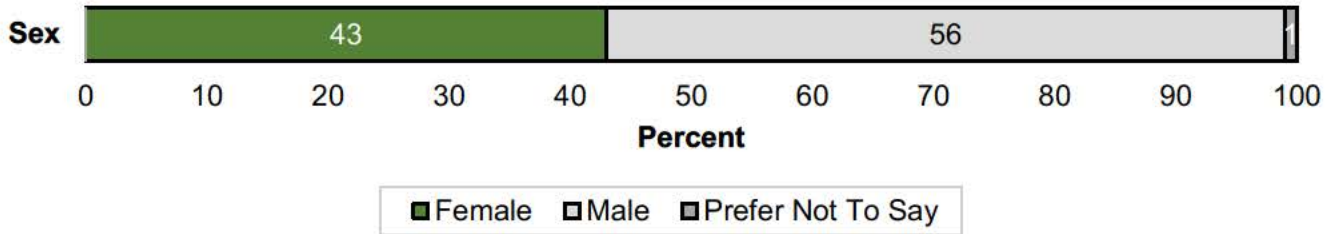


**Figure 35.** Percentage of respondents who consider the following management actions acceptable when Chronic Wasting Disease is found in deer in their region: (a) offer advice/monitor the situation, (b) discourage deer feeding, (c) regulate deer feeding in problem areas, (d) regulate deer feeding state-wide, (e) ban deer feeding in problem areas, (f) ban deer feeding state-wide, and (g) increase hunting permits.

## Demographic Information

### Sex

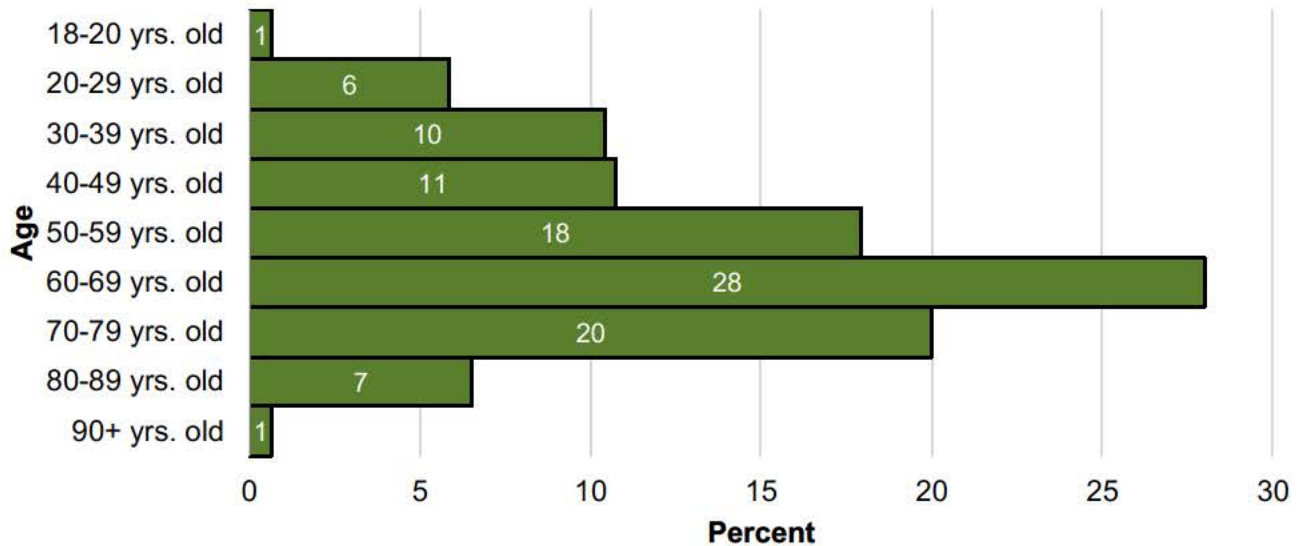
Of our respondents, 56% were male and 43% were female (Figure 36).



**Figure 36.** Percentage of respondents who are (a) female, (b) male, or (c) preferred not to say.

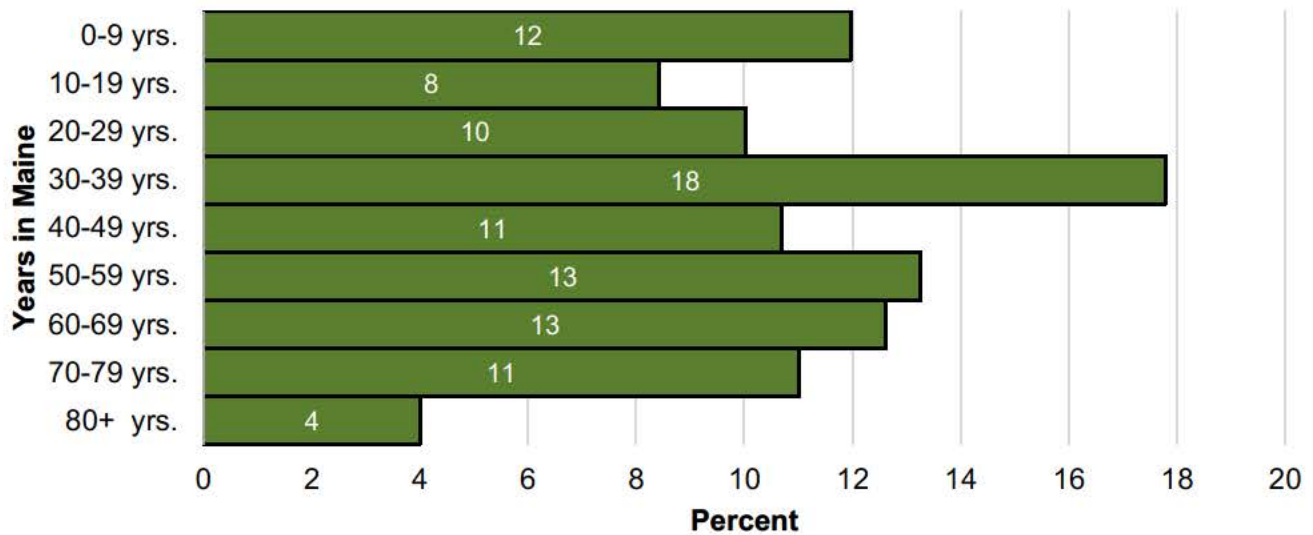
### Age Range

The majority of our respondents were between the ages of 50 and 79 years old (Figure 37).



**Figure 37.** Percentage of respondents who are the following ages: (a) 18-20 years old, (b) 20-29 years old, (c) 30-39 years old, (d) 40-49 years old, (e) 50-59 years old, (f) 60-69 years old, (g) 70-79 years old, (h) 80-89 years old, or (i) 90 years old or older.

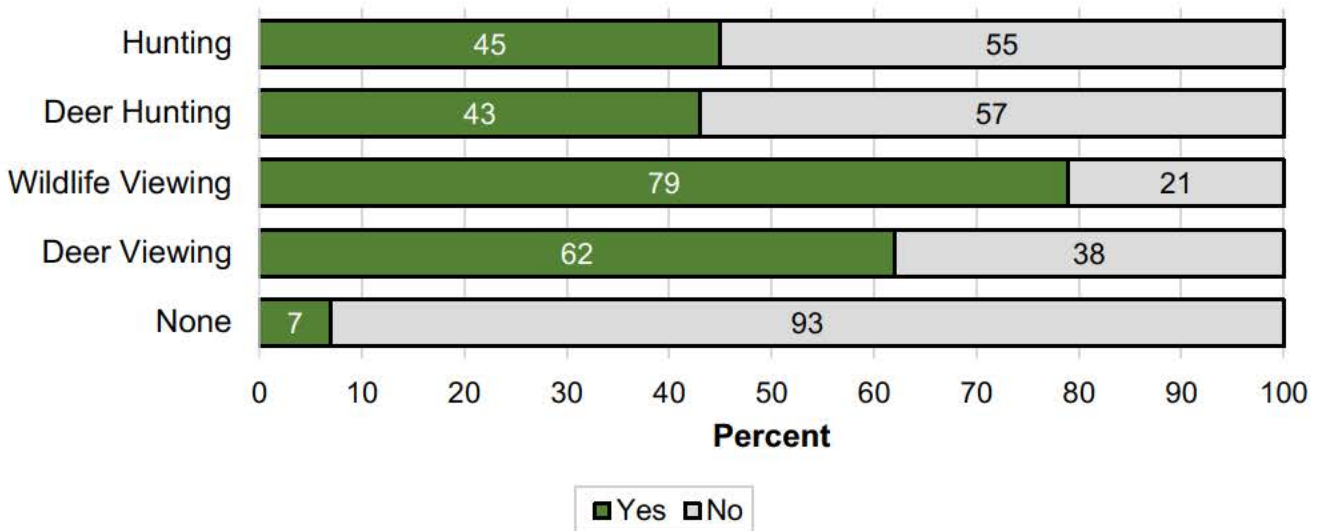
Respondents duration of residence in Maine varied between 0 to 80 plus years (Figure 38). 18% of our respondents reported that they have lived in Maine for 30-39 years.



**Figure 38.** Percentage of respondents who have been residents of Maine for the following number of years (a) 0-9 years, (b) 10-19 years, (c) 20-29 years, (d) 30-39 years, (e) 40-49 years, (f) 50-59 years, (g) 60-69 years, (h) 70-79 years, or (i) 80 years or more.

**Participation in Wildlife Recreation Activities**

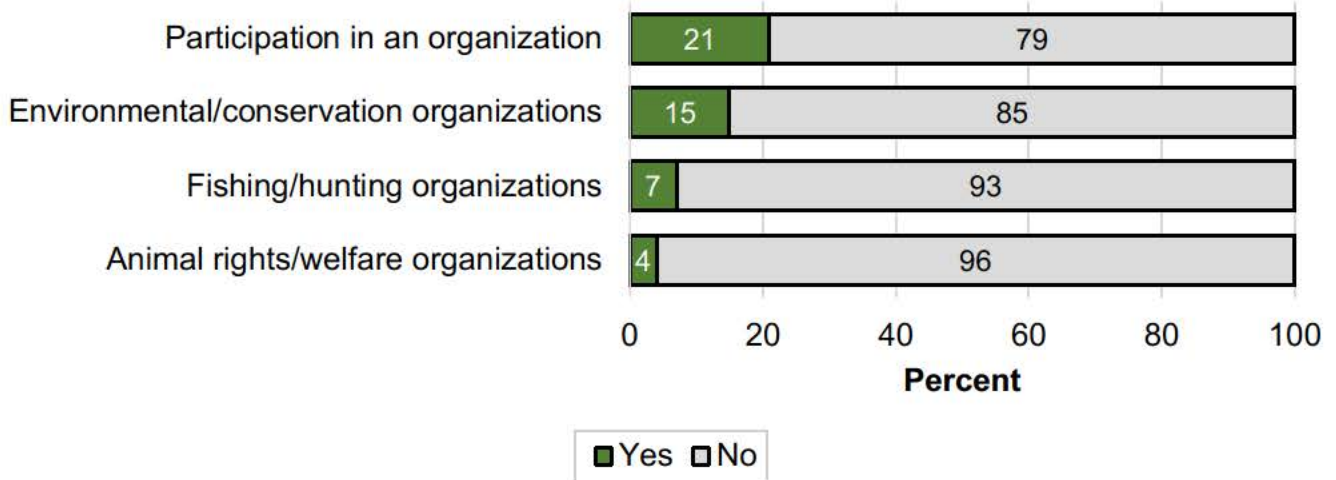
In terms of recreational activities, 79% of our respondents reported that they have participated in wildlife viewing and 62% reported that they have participated in deer viewing (Figure 39). Fewer reported participating in consumptive recreational activities. Only 7% indicated that they do not participate in any of the recreational activity options.



**Figure 39.** Percentage of respondents who participate in the following activities: (a) hunting, (b) deer hunting, (c) wildlife viewing, (d) deer viewing, and/or (e) none.

### ***Participation in Environmental Organization***

Only 21% of respondents indicated that they are members of a natural resource-related organization (Figure 40).



**Figure 40.** Percentage of respondents who are members of a natural resource organization and/or a specific type of natural resource organization.

## References

- Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method*. New York, NY: Wiley.
- Dillman, D. A., Phelps, G., Tortora, R., Swift, K., Kohrell, J., Berck, J., & Messer, B. L. (2009). Response rate and measurement differences in mixed-mode surveys using mail, telephone, interactive voice response (IVR) and the Internet. *Social Science Research*, 38(1), 1-18.
- Responsive Management. (2016). The opinions of Maine residents, landowners, and hunters regarding deer, moose, bear, and turkey. Conducted for the Maine Department of Inland Fisheries and Wildlife: Harrisonburg, VA.



## Appendix A: Introductory Letter

Dear Resident,

You have been selected to participate in a research project being conducted by the Maine Department of Inland Fisheries and Wildlife and Dr. Carly Sponarski, a faculty member at the University of Maine. The goal of this project is to learn about human-deer interactions in your community and public perceptions of deer supplemental feeding. You were randomly selected to participate in this study. We received your name from a national database company when we requested a sample of Maine resident names.

### What will you be asked to do?

If you decide to participate in this survey, you will be asked to submit an anonymous survey. The entire survey will only take approximately **15-20 minutes** to complete, and will arrive by mail shortly. If you prefer to take the survey online, instructions for how to take the online survey will be included in the survey. You must be at least 18 years of age to participate in this study.

#### Risks

Aside from the time and inconvenience, there are no expected risks to individuals who participate.

#### Benefits

There will be no direct benefits to you. However, this research will result in a better understanding of the social and cognitive factors associated with deer management in Maine. You are one of a small group of people that have been selected to represent the views of all Mainers.

#### Compensation

To compensate you for your time, upon completion of the survey, **you may choose to be entered into a raffle for \$100 to L.L. Bean**. Four survey participants will each win a \$100 gift certificate to L.L. Bean. At the end of the survey, you will be redirected to a separate survey that will ask for your address or email address to contact you if you win. This will be collected separately from your survey responses.

#### Confidentiality

All survey data will be collected anonymously. The names of participants will not be collected at any point in time. Completed questionnaires will be stored in a locked drawer in Dr. Sponarski's possession until all data from the questionnaires have been transferred from paper copies into an electronic database. Once the data has been electronically archived, all paper copies of the survey will be destroyed. This data transfer and subsequent paper copy destruction process will be completed no later than April 2024. Dr. Carly Sponarski will maintain this electronic data archive on her password protected computer after the completion of the project.

#### Voluntary

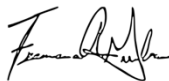
Participation is voluntary. If you choose to take part in this study, you may stop at any time. You may skip any questions you do not wish to answer. Participating in the survey implies consent to participate.

#### Contact Information

If you have any questions, please contact Research Scientist Francesca Gundrum at (207) 200-1245 or [francesca.gundrum@maine.edu](mailto:francesca.gundrum@maine.edu) or you may also reach Dr. Sponarski at (207) 581-2909 or [carlycs@maine.edu](mailto:carlycs@maine.edu). If you have any questions about your rights as a research participant, please contact the Office of Research Compliance, University of Maine, (207) 581-2657 (or email [umric@maine.edu](mailto:umric@maine.edu)).

Thank you in advance for your help with this important study.

Sincerely,



Francesca Gundrum  
Research Scientist  
Dept. of Wildlife, Fisheries, & Conservation Biology  
University of Maine



Dr. Carly Sponarski  
Assistant Professor  
Dept. of Wildlife, Fisheries, & Conservation Biology  
University of Maine

## Appendix B: Maine Deer Survey

**Dear Resident,**

You are invited to participate in a research project being conducted by the Maine Department of Inland Fisheries and Wildlife and Dr. Carly Sponarski, a faculty member at the University of Maine. The goal of this project is to learn about human-deer interactions in your community and public perceptions of deer supplemental feeding in your region.

You were randomly selected to participate in this study. Your address was obtained using public tax records, allowing us to contact you for the purposes of this research. This questionnaire should take about 20 minutes to complete. We request the adult, a person 18 years and older, with the most recent birthday should complete the questionnaire. To thank you for your time, four participants will be randomly selected to **win \$100 L.L. Bean gift cards**.

Your participation is voluntary, but your participation is valuable to our study and we would appreciate your help. We encourage you to answer all questions in a way that accurately reflects your own feelings and beliefs. Your individual responses will be kept confidential. Please answer the questions as openly as possible. At no point will your personal information be collected in association with this study.

When you have completed the questionnaire, please seal your completed questionnaire in the postmarked envelope provided and place it in the mail for return. You may choose to take the survey online at the following address: <https://tinyurl.com/mainedeersurvey>

Thank you in advance for your help with this important study. If you have any questions about the study or need help completing your questionnaire, please do not hesitate to contact Francesca Gundrum at (207) 200-1245 or by email at [francesca.gundrum@maine.edu](mailto:francesca.gundrum@maine.edu).

Thank you for your time and participation.

Sincerely,



Francesca Gundrum

University of Maine  
e. [francesca.gundrum@maine.edu](mailto:francesca.gundrum@maine.edu); t. (207) 200-1245



Dr. Carly Sponarski

University of Maine  
e. [carlycs@maine.edu](mailto:carlycs@maine.edu); t. (207) 581-2909

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A study conducted cooperatively by:



## INFORMED CONSENT FORM

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You are invited to participate in a research project being conducted by the Maine Department of Inland Fisheries and Wildlife and Dr. Carly Sponarski, an Assistant Professor of the Wildlife, Fisheries, and Conservation Biology Department at the University of Maine. The goal of this project is to learn about attitudes toward deer supplemental feeding in Maine. You must be at least 18 years of age to participate.

### **What Will You Be Asked to Do?**

If you decide to participate in this survey, you will be asked to submit an anonymous paper survey. It will take approximately 20 minutes to complete the survey. Once you have finished, we request that you return your survey as stated in the instructions page of this packet. You may choose to take the survey online at the following address: <https://tinyurl.com/mainedeersurvey>

### **Risks**

Aside from the time and inconvenience, there are no expected risks to individuals who participate in this research.

### **Benefits**

There will be no direct benefits to you. However, this research will result in a better understanding of the social factors associated with deer management in Maine, and help the state better manage Maine's deer population.

### **Confidentiality**

All survey data will be collected anonymously. The names of participants will not be collected at any point in time. Completed questionnaires will be stored in a locked drawer in Dr. Sponarski's possession until all data from the questionnaires have been transferred from paper copies into an electronic database. Paper copies of the surveys will be destroyed no later than April 2024. The electronic database will be stored permanently on Dr. Sponarski's password protected computer with access to this information only granted to those with Institutional Review Board permission and training.

### **Voluntary**

Participation is voluntary. If you choose to take part in this study, you may stop at any time. You may skip any questions you do not wish to answer. Participating in the survey implies consent to participate.

### **Contact Information**

If you have any questions, please contact Research Scientist Francesca Gundrum at (207) 200-1245 or [francesca.gundrum@maine.edu](mailto:francesca.gundrum@maine.edu) or you may also reach Dr. Sponarski at (207) 581-2909 or [carlycs@maine.edu](mailto:carlycs@maine.edu). If you have any questions about your rights as a research participant, please contact the Office of Research Compliance, University of Maine, (207) 581-2657 (or email [umric@maine.edu](mailto:umric@maine.edu)).

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**SECTION 1:** In this section you will be asked questions about your beliefs about wildlife in general.

1. To what extent do you **disagree** or **agree** with each of the following? *(Circle one number for each statement)*

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
Humans should manage wildlife populations so that humans benefit.	1	2	3	4	5
Wildlife should have rights similar to the rights of humans.	1	2	3	4	5
We should strive for a world where there's an abundance of wildlife for hunting and fishing.	1	2	3	4	5
I view all living things as part of one big family.	1	2	3	4	5
Hunting does not respect the lives of wildlife.	1	2	3	4	5
I feel a strong emotional bond with wildlife.	1	2	3	4	5
The needs of humans should take priority over wildlife protection.	1	2	3	4	5
I care about wildlife as much as I do about people.	1	2	3	4	5
Wildlife are on earth primarily for people to use.	1	2	3	4	5
Hunting is a positive and humane activity.	1	2	3	4	5
We should strive for a world where humans and wildlife can live side by side without fear.	1	2	3	4	5
I value the sense of companionship I receive from wildlife.	1	2	3	4	5
Wildlife are like my family and I want to protect them.	1	2	3	4	5
People who want to hunt should have the opportunity to do so.	1	2	3	4	5

**SECTION 2:** In this section you will be asked about your beliefs about deer in Maine.

1. In your opinion, describe the **deer population size**: *(Circle one number for each statement)*

	Too Low	Low	About Right	High	Too High	Not Sure
Maine	1	2	3	4	5	6
Currently in your neighborhood	1	2	3	4	5	6
Your neighborhood five years ago	1	2	3	4	5	6

2. **In general**, do you think of deer as:

	Strongly	Slightly	Neither	Slightly	Strongly	
Bad	1	2	3	4	5	Good
Harmful	1	2	3	4	5	Beneficial
Negative	1	2	3	4	5	Positive

3. Which of the following experiences have you personally had in Maine? (*Check all that apply*)

**I have ...**

- ... driven or been a passenger in a vehicle that had to swerve or brake to avoid hitting a deer.
- ... driven or been a passenger in a vehicle that has hit a deer.
- ... had deer eat trees, shrubs, or gardens in my yard.
- ... put out food specifically for deer to eat.
- ... planted a food plot to benefit deer.
- ... taken trips specifically to view deer at feeding sites.
- ... found ticks on myself or a family member.
- ... found ticks on a pet.

4. To what extent do you **disagree** or **agree** with each of the following statements about deer in Maine? (*Circle one number for each statement*)

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
Deer are nuisance animals.	1	2	3	4	5
Deer populations should be completely protected.	1	2	3	4	5
Deer are an important animal for hunting.	1	2	3	4	5
The presence of deer is a sign of a healthy environment.	1	2	3	4	5
Deer should live in residential neighborhoods.	1	2	3	4	5
Forests should be managed to prioritize deer habitat.	1	2	3	4	5
Deer populations are maintained above natural levels for the hunting community.	1	2	3	4	5
Declines in the deer population are a sign of poor forest management.	1	2	3	4	5
Deer are a non-native species.	1	2	3	4	5

5. To what extent do you **disagree** or **agree** with each of the following statements about deer in Maine? (Circle one number for each statement)

<i>I believe deer population growth is limited by ...</i>	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
... harsh winters.	1	2	3	4	5
... coyotes.	1	2	3	4	5
... loss of habitat.	1	2	3	4	5
... loss of available food in forests.	1	2	3	4	5
... Chronic Wasting Disease*.	1	2	3	4	5

\* *Chronic Wasting Disease (CWD) is a highly contagious and fatal disease that affects deer, moose, and elk, but is not yet known to infect humans or livestock. CWD has not yet been detected in Maine.*

6. In terms of your **personal health and safety**, how **concerned** are you about the following? (Circle one number for each statement)

	No Concern		Moderate Concern		High Concern
Deer frequently eating home gardens	1	2	3	4	5
Deer-vehicle collisions	1	2	3	4	5
Contracting Lyme disease*	1	2	3	4	5
Living near a deer population that is infected with Chronic Wasting Disease	1	2	3	4	5
Consuming deer from a population that is infected with Chronic Wasting Disease	1	2	3	4	5

\* *Lyme disease is a disease from ticks that affects humans and is carried by deer.*

### SECTION 3: Your opinions about deer management in Maine.

1. To what extent do you **disagree** or **agree** with each of the following statements? (MDIFW is the Maine Department of Inland Fisheries and Wildlife—the **agency in charge of wildlife.**)

<i>I trust MDIFW to...</i>	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
... effectively manage deer populations.	1	2	3	4	5
... effectively manage deer habitat.	1	2	3	4	5
... provide best available information on deer populations.	1	2	3	4	5
... provide best available information on deer management strategies.	1	2	3	4	5
... provide opportunities for the public to voice their concerns about deer management.	1	2	3	4	5

2. To what extent do you **disagree** or **agree** with each of the following statements?  
*(Circle one number for each statement)*

<i>I trust information from...</i>	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
... university researchers.	1	2	3	4	5
... non-government conservation biology professionals.	1	2	3	4	5
... State government conservation biology professionals.	1	2	3	4	5
... Federal government conservation biology professionals.	1	2	3	4	5

3. On the topic of **deer management**, how important do you consider each of the following considerations?  
*(Circle one number for each statement)*

	Not Important	Somewhat Important	Important	Very Important	Most Important
Maintaining enough deer to satisfy hunters.	1	2	3	4	5
Maintaining enough deer to satisfy wildlife viewers.	1	2	3	4	5
Managing forests to benefit deer habitat.	1	2	3	4	5
Prohibiting winter feeding of deer.	1	2	3	4	5
Reducing the risk of disease transmission within the deer herd (e.g., Chronic Wasting Disease).	1	2	3	4	5
Reducing the risk of disease transmission from deer to humans (e.g., Lyme Disease).	1	2	3	4	5
Reducing the risk of deer-vehicle collisions.	1	2	3	4	5

4. To what extent do you **disagree** or **agree** with each of the following statements about different **methods of deer feeding for hunting purposes** in Maine? *(Circle one number for each statement)*

- **Bait** can be any animal, plant, or a part of an animal or plant used to attract wild animals for the purpose of hunting.
- **Mineral licks** are typically blocks of salt provided to attract deer for the purpose of hunting.
- **Food plots** are standing crops of grain, fruit, nuts, or other foods known to be attractive to deer.

<i>I believe hunting deer over...</i>	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
... bait is considered fair chase.	1	2	3	4	5
... mineral licks is considered fair chase.	1	2	3	4	5
... food plots is considered fair chase.	1	2	3	4	5

5. To what extent do you **disagree** or **agree** with each of the following statements **about deer feeding by the public** in Maine? (*Circle one number for each statement*)

<i>I believe ...</i>	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
... people who feed deer have good intentions.	1	2	3	4	5
... feeding deer creates nuisance deer.	1	2	3	4	5
... landowners should maintain the right to do what they want on their land.	1	2	3	4	5
... people who feed deer do so for selfish reasons.	1	2	3	4	5
... the public has enough chances to share opinions about deer management.	1	2	3	4	5
... town bans on feeding deer will hurt the deer population.	1	2	3	4	5
... town bans on feeding deer will enhance public safety.	1	2	3	4	5

6. MDIFW has major concerns about feeding deer, such as increased deer-vehicle collisions, risk of disease spread amongst deer, impacts of certain feed on deer health, etc. One disease that is of particular concern is Chronic Wasting Disease (*not currently found in Maine yet*), a highly contagious disease, which spreads through saliva and is fatal to deer. Since deer feeding is not illegal, MDIFW could offer guidelines (e.g., best food types, locations, etc.) for how to properly feed deer.

Given what we know about the risks associated with feeding deer, how **unlikely** or **likely** are you to do the following if **MDIFW offered guidelines**? (*Circle one number for each statement*)

	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
Start feeding deer	1	2	3	4	5
Change the way you feed deer currently	1	2	3	4	5

7. Professional wildlife biologists believe that Chronic Wasting Disease (CWD) spreads by direct deer-to-deer contact. To limit the possibility of CWD spreading to areas of Maine, **which of these options is most appealing to you?** (*Please check only one option*)

- Feeding deer should not be banned (it should remain legal state-wide).
- Feeding deer should be banned only in CWD infected areas (4 miles surrounding area where deer with CWD was identified).
- Feeding deer should be banned state-wide.



**SECTION 4:** Your opinions about hypothetical human-deer situations in Maine.

**PLEASE READ BEFORE ANSWERING MORE QUESTIONS**

This section contains a series of questions about 7 hypothetical human-deer situations in Maine. For each situation, please rate the **acceptability of the scenario and the management actions** that might be used to address the situation. The management actions include:

- **Offer advice and monitor the situation.** Author t es take no mmed ate act on but mon for the s tuat on and prov de nformat on to the pub c about how to protect themse ves, the r fam es, pets or property. Th s cou d nc ude post ng warn ng s gns. As the s tuat on deve ops, however, author t es m ght need to take further act on.
- **Discourage deer feeding.** Author t es not fy homeowners of ssues connected to attract ng deer to the area and recommend that deer feed ng be d scont nued.
- **Regulate deer feeding in problem areas.** Loca author t es regu ate deer feed ng n dent fed prob em areas (e.g., 4 m es around where a deer w th CWD was dent fed) w th a oca deer feed ng and management p an.
- **Regulate deer feeding state-wide.** Author t es regu ate deer feed ng w th a state-w de deer feed ng and management p an.
- **Ban deer feeding in problem areas.** Loca author t es not fy homeowners of ssues connected to attract ng deer n the r ne ghborhood and mp ement a f ne for anyone found to be feed ng deer.
- **Ban deer feeding state-wide.** Author t es not fy homeowners of ssues connected to attract ng deer n the state and mp ement a f ne for anyone found to be feed ng deer.
- **Increase hunting permits.** State author t es ncrease the number of deer hunt ng perm ts n order to decrease the deer popu at on n the area. Th s usua y nvo ves ncreas ng the number of doe (fema e deer) perm tted to be hunted.

**SCENARIO 1.** Deer are frequently eating home gardens of you and/or your neighbors.

<i>How unacceptable or acceptable are the following ...</i>	Highly Unacceptable	Slightly Unacceptable	Neither	Slightly Acceptable	Highly Acceptable
Deer are frequently eating your home garden or your neighbor's garden.	1	2	3	4	5
<b>Possible management actions ...</b>					
... Offer advice/monitor the situation	1	2	3	4	5
... Discourage deer feeding	1	2	3	4	5
... Regulate deer feeding in problem areas	1	2	3	4	5
... Regulate deer feeding state-wide	1	2	3	4	5
... Ban deer feeding in problem areas	1	2	3	4	5
... Ban deer feeding state-wide	1	2	3	4	5
... Increase hunting permits	1	2	3	4	5

**SCENARIO 2.** Your neighborhood is experiencing frequent deer-vehicle collisions.

<b>How unacceptable or acceptable are the following ...</b>	H gh y Unacceptab e	S ght y Unacceptab e	Ne ther	S ght y Acceptab e	H gh y Acceptab e
You or your neighbors are experiencing frequent deer-vehicle collisions.	1	2	3	4	5
<b>Possible management actions ...</b>					
... Offer advice/monitor the situation	1	2	3	4	5
... Discourage deer feeding	1	2	3	4	5
... Regulate deer feeding in problem areas	1	2	3	4	5
... Regulate deer feeding state-wide	1	2	3	4	5
... Ban deer feeding in problem areas	1	2	3	4	5
... Ban deer feeding state-wide	1	2	3	4	5
... Increase hunting permits	1	2	3	4	5

**SCENARIO 3.** Lyme disease (*a disease from ticks that affects humans and is carried by deer*) rates are increasing in your region, and researchers suggest that it is linked to a high population of deer in your area.

<b>How unacceptable or acceptable are the following ...</b>	H gh y Unacceptab e	S ght y Unacceptab e	Ne ther	S ght y Acceptab e	H gh y Acceptab e
Lyme disease rates are increasing in your region.	1	2	3	4	5
<b>Possible management actions ...</b>					
... Offer advice/monitor the situation	1	2	3	4	5
... Discourage deer feeding	1	2	3	4	5
... Regulate deer feeding in problem areas	1	2	3	4	5
... Regulate deer feeding state-wide	1	2	3	4	5
... Ban deer feeding in problem areas	1	2	3	4	5
... Ban deer feeding state-wide	1	2	3	4	5
... Increase hunting permits	1	2	3	4	5

**SCENARIO 4.** Chronic Wasting Disease (*a highly contagious and fatal disease that affects deer, moose, and elk, but is not yet known to infect humans or livestock*) is found in deer in your region. Researchers suggest that it spreads through high concentrations of deer at feeding sites.

<b>How unacceptable or acceptable are the following ...</b>	H gh y Unacceptab e	S ght y Unacceptab e	Ne ther	S ght y Acceptab e	H gh y Acceptab e
Chronic Wasting Disease is found in deer in your region.	1	2	3	4	5
<b>Possible management actions ...</b>					
... Offer advice/monitor the situation	1	2	3	4	5
... Discourage deer feeding	1	2	3	4	5
... Regulate deer feeding in problem areas	1	2	3	4	5
... Regulate deer feeding state-wide	1	2	3	4	5
... Ban deer feeding in problem areas	1	2	3	4	5
... Ban deer feeding state-wide	1	2	3	4	5
... Increase hunting permits	1	2	3	4	5

**SECTION 5:** We are interested to know about whether or not you are feeding deer.

- Do you feed deer? (*Check one*)
  - Yes (Please answer questions below)
  - No (Go to Section 6)
  - Prefer Not To Say (Go to Section 6)
- What months of the year do you feed deer? (*Check all that apply*)
  - Sept.  Oct.  Nov.  Dec.  Jan.  Feb.  March  April  May  June  July  Aug.
- Do you feed deer at the same place each year? (*Check one*)
  - Yes
  - No
  - Prefer Not To Say
- What type of food do you use to feed deer? (*Please write your answer below*)
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_
- Where do you buy your deer food? \_\_\_\_\_
- On average, how much money do you spend on deer food each year? \_\_\_\_\_
- How much deer food do you buy each year? \_\_\_\_\_
- How long have you been feeding deer? (*Check one*)
  - 0 – 5 years
  - 5 – 10 years
  - 10 – 15 years
  - 15+ years

9. How close is the nearest road (e.g., town road or state highway) to where you feed deer? (*Check one*)  
 0 – 0.5 miles       0.5 – 1 miles       1 – 2 miles       2+ miles

10. Are you concerned that deer feeding may negatively impact your neighbors? (*Check one*)  
 Yes       No       Not Sure       Prefer Not To Say

11. People feed deer for many reasons. Listed below are several reasons why deer feeding may be important to you. **Please indicate how important each of these reasons are in influencing you to feed deer.** (*Circle one number for each statement*)

	Not Important	Somewhat Important	Important	Very Important	Most Important
Attracting deer to an area where I hunt	1	2	3	4	5
Viewing deer	1	2	3	4	5

2. To what extent do you **disagree** or **agree** with each of the following statements related to **your involvement in deer hunting**? (*Circle one number for each statement*)

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
If I stopped deer hunting, an important part of my life would be missing.	1	2	3	4	5
I have invested a lot of money in deer hunting equipment.	1	2	3	4	5
I would bait deer during hunting season if it were legal.	1	2	3	4	5
I mainly hunt deer only to bring the meat home to eat.	1	2	3	4	5
I mainly hunt deer to harvest a trophy deer.	1	2	3	4	5
The presence of Chronic Wasting Disease in a deer population will deter me from hunting deer.	1	2	3	4	5

**SECTION 7:** Please provide the following information about yours elf.

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1. Are you:     Female     Male     Prefer Not To Say
  
2. What year were you born: \_\_\_\_\_ (YYYY)
  
3. How many years have you lived in Maine? \_\_\_\_\_ years
  
4. Have you ever participated in the following activities? (*Check all that apply*)  
 Hunting     Deer hunting     Wildlife viewing     Deer viewing     None
  
5. Are you a member of any environmental, conservation, fishing, hunting, animal rights or animal welfare organizations?
  - a.  Yes (*Please answer #5b*)     No
  - b. Please check all that apply and write organization(s) name(s).  
 Environmental or conservation organizations    *Name:* \_\_\_\_\_  
 Fishing or hunting organizations.    *Name:* \_\_\_\_\_  
 Animal rights or animal welfare organizations.    *Name:* \_\_\_\_\_
  
6. Would you be interested in participating in future studies about wildlife management in Maine? If so, please provide your email address:  
\_\_\_\_\_

**Thank you for your participation! Your opinions are greatly appreciated!**

*If you have comments or feedback, please use the space below.*

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If you would like to be **entered to win 1 of 4 \$100 L.L. Bean gift cards**, please go to the following website: <http://tinyurl.com/mainedeersurveyraffle>

## Appendix C: Maine Deer Survey Complete Results

**SECTION 1:** In this section you will be asked questions about your beliefs about wildlife in general.

1. To what extent do you **disagree** or **agree** with each of the following? *(Circle one number for each statement)*

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
Humans should manage wildlife populations so that humans benefit.	17%	20%	20%	23%	20%
Wildlife should have rights similar to the rights of humans.	22%	21%	18%	22%	18%
We should strive for a world where there's an abundance of wildlife for hunting and fishing.	4%	7%	15%	29%	46%
I view all living things as part of one big family.	7%	7%	21%	28%	36%
Hunting does not respect the lives of wildlife.	39%	25%	15%	12%	9%
I feel a strong emotional bond with wildlife.	6%	9%	21%	32%	32%
The needs of humans should take priority over wildlife protection.	26%	22%	22%	24%	7%
I care about wildlife as much as I do about people.	10%	21%	18%	24%	26%
Wildlife are on earth primarily for people to use.	44%	19%	20%	10%	8%
Hunting is a positive and humane activity.	11%	11%	23%	25%	31%
We should strive for a world where humans and wildlife can live side by side without fear.	10%	12%	26%	20%	31%
I value the sense of companionship I receive from wildlife.	5%	7%	28%	27%	33%
Wildlife are like my family and I want to protect them.	13%	16%	26%	24%	22%
People who want to hunt should have the opportunity to do so.	3%	5%	9%	32%	51%

**SECTION 2:** In this section you will be asked about your beliefs about deer in Maine.

1. In your opinion, describe the **deer population size**: *(Circle one number for each statement)*

	Too Low	Low	About Right	High	Too High	Not Sure
Maine	5%	15%	35%	13%	7%	25%
Currently in your neighborhood	10%	20%	42%	11%	9%	8%
Your neighborhood five years ago	9%	16%	37%	12%	6%	20%

2. **In general**, do you think of deer as:

	Strongly	Slightly	Neither	Slightly	Strongly	
Bad	1%	3%	26%	18%	52%	Good
Harmful	4%	10%	24%	23%	38%	Beneficial
Negative	2%	5%	28%	20%	46%	Positive

3. Which of the following experiences have you personally had in Maine? *(Check all that apply)*

***I have ...***

- 77% driven or been a passenger in a vehicle that had to swerve or brake to avoid hitting a deer.
- 40% driven or been a passenger in a vehicle that has hit a deer.
- 63% had deer eat trees, shrubs, or gardens in my yard.
- 18% put out food in the winter specifically for deer to eat.
- 10% planted a food plot to benefit deer.
- 27% taken trips specifically to view deer at feeding sites.
- 67% found ticks on myself or a family member.
- 58% found ticks on a pet.

4. To what extent do you **disagree** or **agree** with each of the following statements about deer in Maine? (Circle one number for each statement)

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
Deer are nuisance animals.	45%	16%	24%	12%	3%
Deer populations should be completely protected.	26%	22%	19%	20%	14%
Deer are an important animal for hunting.	5%	2%	12%	29%	52%
The presence of deer is a sign of a healthy environment.	0%	3%	20%	38%	39%
Deer should live in residential neighborhoods.	18%	25%	35%	15%	7%
Forests should be managed to prioritize deer habitat.	4%	9%	27%	32%	29%
Deer populations are maintained above natural levels for the hunting community.	15%	15%	50%	14%	5%
Declines in the deer population are a sign of poor forest management.	8%	19%	34%	25%	14%
Deer are a non-native species.	62%	10%	26%	1%	2%

5. To what extent do you **disagree** or **agree** with each of the following statements about deer in Maine? (Circle one number for each statement)

<b><i>I believe deer population growth is limited by ...</i></b>	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
... harsh winters.	4%	4%	11%	36%	45%
... coyotes.	3%	8%	18%	32%	38%
... loss of habitat.	4%	4%	14%	33%	45%
... loss of available food in forests.	3%	7%	20%	33%	37%
... Chronic Wasting Disease*.	15%	4%	53%	16%	11%

\* Chronic Wasting Disease (CWD) is a highly contagious and fatal disease that affects deer, moose, and elk, but is not yet known to infect humans or livestock. CWD has not yet been detected in Maine.



6. In terms of your **personal health and safety**, how **concerned** are you about the following?  
*(Circle one number for each statement)*

	No Concern	Moderate Concern	H gh Concern
Deer frequently eating home gardens	49%	16%	7%
Deer-vehicle collisions	6%	14%	19%
Contracting Lyme disease*	7%	12%	18%
Living near a deer population that is infected with Chronic Wasting Disease	28%	22%	10%
Consuming deer from a population that is infected with Chronic Wasting Disease	31%	15%	11%

\* *Lyme disease is a disease from ticks that affects humans and is carried by deer.*

**SECTION 3: Your opinions about deer management in Maine.**

8. To what extent do you **disagree** or **agree** with each of the following statements?  
*(MDIFW is the Maine Department of Inland Fisheries and Wildlife—the agency in charge of wildlife.)*

<i>I trust MDIFW to...</i>	Strongly Disagree	S ightly Disagree	Neither Agree nor Disagree	S ightly Agree	Strongly Agree
... effectively manage deer populations.	6%	9%	17%	39%	29%
... effectively manage deer habitat.	7%	10%	20%	37%	25%
... provide best available information on deer populations.	3%	5%	16%	38%	38%
... provide best available information on deer management strategies.	5%	5%	20%	36%	35%
... provide opportunities for the public to voice their concerns about deer management.	4%	10%	27%	28%	31%

9. To what extent do you **disagree** or **agree** with each of the following statements?  
*(Circle one number for each statement)*

<i>I trust information from...</i>	Strongly Disagree	S ightly Disagree	Neither Agree nor Disagree	S ightly Agree	Strongly Agree
... university researchers.	2%	7%	21%	32%	38%
... non-government conservation biology professionals.	3%	8%	22%	37%	30%
... State government conservation biology professionals.	3%	7%	17%	43%	30%
... Federal government conservation biology professionals.	8%	12%	22%	35%	23%

10. On the topic of **deer management**, how important do you consider each of the following considerations?  
*(Circle one number for each statement)*

	Not Important	Somewhat Important	Important	Very Important	Most Important
Maintaining enough deer to satisfy hunters.	15%	25%	28%	23%	9%
Maintaining enough deer to satisfy wildlife viewers.	17%	23%	30%	21%	9%
Managing forests to benefit deer habitat.	2%	12%	27%	34%	25%
Prohibiting winter feeding of deer.	27%	25%	24%	13%	11%
Reducing the risk of disease transmission within the deer herd (e.g., Chronic Wasting Disease).	3%	8%	20%	32%	38%
Reducing the risk of disease transmission from deer to humans (e.g., Lyme Disease).	1%	8%	14%	31%	45%
Reducing the risk of deer-vehicle collisions.	3%	13%	28%	26%	31%

11. To what extent do you **disagree** or **agree** with each of the following statements about different **methods of deer feeding for hunting purposes** in Maine? *(Circle one number for each statement)*

- **Bait** can be any animal, plant, or a part of an animal or plant used to attract wild animals for the purpose of hunting.
- **Mineral licks** are typically blocks of salt provided to attract deer for the purpose of hunting.
- **Food plots** are standing crops of grain, fruit, nuts, or other foods known to be attractive to deer.

<i>I believe hunting deer over...</i>	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
... bait is considered fair chase.	65%	16%	9%	5%	5%
... mineral licks is considered fair chase.	62%	17%	11%	5%	5%
... food plots is considered fair chase.	50%	15%	15%	9%	11%

12. To what extent do you **disagree** or **agree** with each of the following statements **about deer feeding by the public** in Maine? (*Circle one number for each statement*)

<i>I believe ...</i>	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
... people who feed deer have good intentions.	3%	6%	21%	42%	28%
... feeding deer creates nuisance deer.	6%	10%	20%	39%	26%
... landowners should maintain the right to do what they want on their land.	8%	11%	18%	29%	34%
... people who feed deer do so for selfish reasons.	20%	18%	40%	15%	7%
... the public has enough chances to share opinions about deer management.	10%	19%	46%	18%	7%
... town bans on feeding deer will hurt the deer population.	21%	19%	33%	18%	8%
... town bans on feeding deer will enhance public safety.	11%	15%	36%	22%	16%

13. MDIFW has major concerns about feeding deer, such as increased deer-vehicle collisions, risk of disease spread amongst deer, impacts of certain feed on deer health, etc. One disease that is of particular concern is Chronic Wasting Disease (*not currently found in Maine yet*), a highly contagious disease, which spreads through saliva and is fatal to deer. Since deer feeding is not illegal, MDIFW could offer guidelines (e.g., best food types, locations, etc.) for how to properly feed deer.

Given what we know about the risks associated with feeding deer, how **unlikely** or **likely** are you to do the following if **MDIFW offered guidelines**? (*Circle one number for each statement*)

	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
Start feeding deer	56%	12%	19%	7%	7%
Change the way you feed deer currently	38%	5%	35%	8%	14%

14. Professional wildlife biologists believe that Chronic Wasting Disease (CWD) spreads by direct deer-to-deer contact. To limit the possibility of CWD spreading to areas of Maine, **which of these options is most appealing to you?** (*Please check only one option*)

- 21% Feeding deer should not be banned (it should remain legal state-wide).
- 41% Feeding deer should be banned only in CWD infected areas (4 miles surrounding area where deer with CWD was identified).
- 38% Feeding deer should be banned state-wide.

**SECTION 4:** Your opinions about hypothetical human-deer situations in Maine.

**PLEASE READ BEFORE ANSWERING MORE QUESTIONS**

This section contains a series of questions about 7 hypothetical human-deer situations in Maine. For each situation, please rate the **acceptability of the scenario and the management actions** that might be used to address the situation. The management actions include:

- **Offer advice and monitor the situation.** Author t es take no mmed ate act on but mon for the s tuat on and prov de nformat on to the pub c about how to protect themse ves, the r fam es, pets or property. Th s cou d nc ude post ng warn ng s gns. As the s tuat on deve ops, however, author t es m ght need to take further act on.
- **Discourage deer feeding.** Author t es not fy homeowners of ssues connected to attract ng deer to the area and recommend that deer feed ng be d scont nued.
- **Regulate deer feeding in problem areas.** Loca author t es regu ate deer feed ng n dent fed prob em areas (e.g., 4 m es around where a deer w th CWD was dent fed) w th a loca deer feed ng and management p an.
- **Regulate deer feeding state-wide.** Author t es regu ate deer feed ng w th a state-w de deer feed ng and management p an.
- **Ban deer feeding in problem areas.** Loca author t es not fy homeowners of ssues connected to attract ng deer n the r ne ghborhood and mp ement a f ne for anyone found to be feed ng deer.
- **Ban deer feeding state-wide.** Author t es not fy homeowners of ssues connected to attract ng deer n the state and mp ement a f ne for anyone found to be feed ng deer.
- **Increase hunting permits.** State author t es ncrease the number of deer hunt ng perm ts n order to decrease the deer popu at on n the area. Th s usua y nvo ves ncreas ng the number of doe (fema e deer) perm tted to be hunted.

**SCENARIO 1.** Deer are frequently eating home gardens of you and/or your neighbors.

<i>How unacceptable or acceptable are the following ...</i>	Highly Unacceptable	Slightly Unacceptable	Neither	Slightly Acceptable	Highly Acceptable
Deer are frequently eating your home garden or your neighbor's garden.	19%	31%	25%	18%	7%
<b>Possible management actions ...</b>					
... Offer advice/monitor the situation	2%	5%	14%	27%	52%
... Discourage deer feeding	7%	7%	18%	28%	40%
... Regulate deer feeding in problem areas	8%	6%	14%	34%	38%
... Regulate deer feeding state-wide	19%	14%	19%	23%	25%
... Ban deer feeding in problem areas	10%	11%	17%	27%	35%
... Ban deer feeding state-wide	27%	18%	20%	13%	22%
... Increase hunting permits	15%	10%	21%	29%	25%

**SCENARIO 2.** Your neighborhood is experiencing frequent deer-vehicle collisions.

<b>How unacceptable or acceptable are the following ...</b>	H gh y Unacceptab e	S ght y Unacceptab e	Ne ther	S ght y Acceptab e	H gh y Acceptab e
You or your neighbors are experiencing frequent deer-vehicle collisions.	42%	25%	24%	5%	4%
<b>Possible management actions ...</b>					
... Offer advice/monitor the situation	4%	5%	11%	28%	52%
... Discourage deer feeding	6%	4%	16%	26%	48%
... Regulate deer feeding in problem areas	5%	6%	12%	29%	47%
... Regulate deer feeding state-wide	16%	10%	23%	21%	29%
... Ban deer feeding in problem areas	10%	7%	12%	25%	46%
... Ban deer feeding state-wide	22%	17%	21%	14%	26%
... Increase hunting permits	13%	9%	18%	29%	31%

**SCENARIO 3.** Lyme disease (*a disease from ticks that affects humans and is carried by deer*) rates are increasing in your region, and researchers suggest that it is linked to a high population of deer in your area.

<b>How unacceptable or acceptable are the following ...</b>	H gh y Unacceptab e	S ght y Unacceptab e	Ne ther	S ght y Acceptab e	H gh y Acceptab e
Lyme disease rates are increasing in your region.	55%	19%	16%	6%	4%
<b>Possible management actions ...</b>					
... Offer advice/monitor the situation	5%	3%	8%	23%	61%
... Discourage deer feeding	5%	5%	13%	25%	52%
... Regulate deer feeding in problem areas	5%	6%	10%	25%	54%
... Regulate deer feeding state-wide	15%	10%	19%	21%	35%
... Ban deer feeding in problem areas	7%	8%	11%	23%	50%
... Ban deer feeding state-wide	20%	12%	21%	16%	30%
... Increase hunting permits	13%	8%	17%	27%	35%

**SCENARIO 4.** Chronic Wasting Disease (*a highly contagious and fatal disease that affects deer, moose, and elk, but is not yet known to infect humans or livestock*) is found in deer in your region. Researchers suggest that it spreads through high concentrations of deer at feeding sites.

<b>How unacceptable or acceptable are the following ...</b>	H gh y Unacceptab e	S ght y Unacceptab e	Ne ther	S ght y Acceptab e	H gh y Acceptab e
Chronic Wasting Disease is found in deer in your region.	62%	18%	15%	3%	2%
<b>Possible management actions ...</b>					
... Offer advice/monitor the situation	4%	4%	8%	18%	65%
... Discourage deer feeding	5%	5%	12%	18%	60%
... Regulate deer feeding in problem areas	5%	4%	9%	21%	61%
... Regulate deer feeding state-wide	15%	6%	16%	21%	42%
... Ban deer feeding in problem areas	9%	4%	11%	21%	55%
... Ban deer feeding state-wide	19%	12%	18%	18%	33%
... Increase hunting permits	14%	8%	18%	27%	33%

**SECTION 5:** We are interested to know about whether or not you are feeding deer.

1. Do you feed deer? (*Check one*)

10% Yes

90% No

0% Prefer Not To Say

2. What months of the year do you feed deer? (*Check all that apply*)

4% September

4% October

5% November

11% December

17% January

19% February

17% March

7% April

6% May

3% June

3% July

3% August

3. Do you feed deer at the same place each year? (*Check one*)

- 68% Yes
- 21% No
- 11% Prefer Not To Say

4. What type of food do you use to feed deer? (*Please write your answer below*)

**All written responses were included.**

- 1% Bread
- 1% Carrots
- 1% Cedar Bows
- 1% Clover
- 1% Molasses
- 1% Rye
- 2% Food Plot
- 2% Grain/Oats
- 2% Mineral Licks
- 3% Vegetable/Fruit Scraps
- 6% Corn
- 6% Apple Trees
- 5% Apples
- 10% Store Bought Feed

5. Where do you buy your deer food? (*Please write your answer below*)

**All written responses were included.**

- 7% Aubuchon Hardware
- 7% Bakery
- 7% Sam's Club
- 14% Local General Store
- 21% Local Feed Store
- 43% Tractor Supply

6. On average, how much money do you spend on deer food each year? (*Please write your answer below*)

**All written responses were included.**

- 17% \$15-\$49
- 17% \$50-\$99
- 42% \$100-\$499
- 17% \$500-\$999
- 8% \$1000+

7. How much deer food do you buy each year? (*Please write your answer below*)

**Insufficient Results.**

8. How long have you been feeding deer? (*Check one*)

48% 0 – 5 years

15% 5 – 10 years

7% 10 – 15 years

30% 15+ years

9. How close is the nearest road (e.g., town road or state highway) to where you feed deer? (*Check one*)

57% 0 – 0.5 miles

33% 0.5 – 1 miles

10% 1 – 2 miles

0% 2+ miles

10. Are you concerned that deer feeding may negatively impact your neighbors? (*Check one*)

3% Yes

84% No

0% Not Sure

13% Prefer Not To Say

11. People feed deer for many reasons. Listed below are several reasons why deer feeding may be important to you. **Please indicate how important each of these reasons are in influencing you to feed deer.** (*Circle one number for each statement*)

	Not Important	Somewhat Important	Important	Very Important	Most Important
Attracting deer to an area where I hunt	80%	3%	10%	3%	3%
Viewing deer	30%	13%	13%	10%	33%
Deer feeding is a tradition in my community	82%	0%	14%	0%	4%
Stabilizing the population in the winter	21%	7%	41%	10%	21%
Lack of natural food for deer in the winter	10%	3%	31%	21%	34%
Deer rely on me to feed them	56%	30%	11%	0%	4%

**SECTION 6:** We are interested to know about whether or not you are a deer hunter.

1. Do you hunt deer?

31% Yes (Please answer the below question)

69% No (Go to Section 7)

0% Prefer Not To Say (Go to Section 7)



2. To what extent do you **disagree** or **agree** with each of the following statements related to **your involvement in deer hunting**? (Circle one number for each statement)

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
If I stopped deer hunting, an important part of my life would be missing.	8%	6%	14%	18%	54%
I have invested a lot of money in deer hunting equipment.	12%	15%	14%	31%	29%
I would bait deer during hunting season if it were legal.	41%	14%	15%	13%	18%
I mainly hunt deer only to bring the meat home to eat.	3%	6%	18%	27%	45%
I mainly hunt deer to harvest a trophy deer.	59%	16%	17%	8%	0%
The presence of Chronic Wasting Disease in a deer population will deter me from hunting deer.	17%	11%	24%	20%	28%

**SECTION 7:** Please provide the following information about yourself.

1. Are you:

- 43% Female
- 56% Male
- 1% Prefer Not To Say

2. What year were you born:

- 1% 18-20 years old
- 6% 20-29 years old
- 10% 30-39 years old
- 11% 40-49 years old
- 18% 50-59 years old
- 28% 60-69 years old
- 20% 70-79 years old
- 7% 80-89 years old
- 2% 90+ years old

3. How many years have you lived in Maine?

- 12% 0-9 years
- 8% 10-19 years
- 10% 20-29 years
- 18% 30-39 years
- 11% 40-49 years
- 13% 50-59 years
- 13% 60-69 years
- 11% 70-79 years
- 4% 80+ years

4. Have you ever participated in the following activities? (*Check all that apply*)

45% Hunting

43% Deer hunting

79% Wildlife viewing

62% Deer viewing

7% None

5. Are you a member of any environmental, conservation, fishing, hunting, animal rights or animal welfare organizations?

a.

21% Yes (*Please answer #5b*)

79% No (*Thank you, you are finished*)

b. Please check all that apply:

15% Environmental or conservation organizations

7% Fishing or hunting organizations

4% Animal rights or animal welfare organizations