

The Human Dimensions of Furbearer Management in Maine Abridged



Conducted for the
Maine Department of Inland Fisheries and Wildlife



By Responsive Management

2020



**THE HUMAN DIMENSIONS OF FURBEARER
MANAGEMENT IN MAINE
Abridged**

2020

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EXECUTIVE SUMMARY

The Maine Department of Inland Fisheries and Wildlife (hereinafter referred to as the Department) was established to preserve, protect, and enhance the inland fisheries and wildlife resources of Maine. As part of this overall charge, the Department is mandated with using “regulated hunting, fishing, and trapping as the basis for the management of these resources whenever feasible” [PL 2015, c. 416, §1 (AMD)].

This study was conducted for the Department to obtain public input regarding the management of furbearers in the state, as well as to explore attitudes toward trapping, human-wildlife conflicts, and the Department itself. The overall project entailed input from thousands of Maine residents. Specifically, Responsive Management conducted a scientific multi-modal survey of Maine residents, hunters, trappers, and landowners (the survey provided complete coverage of the study population); focus groups with residents, hunters, trappers, and animal rights advocates; and regional public meetings open to the general population of Maine. Responsive Management also designed and maintained an online public forum that allowed for additional input from Maine residents and recreationists. This combination of scientific, probability-based sampling and non-scientific qualitative data collection ensured that *every Maine resident* had an opportunity to provide input for the project.

As part of this project, this abridged report (53 pages) and a full version of this report (535 pages) were prepared. This is the abridged report.

Three quarters of Maine residents (75%) approve of trapping, while 17% disapprove (the rest are neutral). Two common reasons for opposing trapping are concern over perceived inhumane treatment and concern over accidental or non-target catch (in some cases, this latter concern stems from an assumption that trapping is not properly regulated or is not regulated enough).

The motivation or purpose of the trapping affects approval and disapproval: for example, trapping to resolve nuisance wildlife situations tends to be much more acceptable than trapping for recreation or for money. It is also the case that some people who initially think of themselves as opponents of trapping reconsider when presented with information that explains how and why the trapping is done, as well as the regulations that are in place to ensure the sustainability of the species being trapped. Awareness that the Department regulates trapping is high in Maine, but it is lowest among those who disapprove of trapping: only 69% of this group is aware that the Department regulates trapping, compared to 82% of residents overall.

The furbearer species for which Maine residents have the highest knowledge levels are skunk, raccoon, and coyote. On the other hand, the lowest knowledge levels are for marten and muskrat. Regarding furbearer population levels, more residents think that the population is *too high* than *too low* for coyote, skunk, raccoon, and fisher. On the other hand, more residents think that the population is *too low* than *too high* for otter, bobcat, fox, marten, muskrat, and beaver.

One of the key takeaways from the study is that public approval of trapping depends on trapping being done as humanely as possible to minimize any pain and suffering on the part of the animal. The reader is encouraged to review the full discussion of all major findings in Chapter 2. It is recommended that the data in this report be used as an ongoing resource, as the report contains detailed results from each component of the study data collection, including statewide and regional survey results on each of the ten furbearer species explored in the project. Decisions about furbearer management in Maine should be made with these data in mind.

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1. INTRODUCTION AND METHODOLOGY

This study was conducted for the Maine Department of Inland Fisheries and Wildlife (hereinafter referred to as the Department) to obtain public input regarding the management of furbearers in the state. This is the abridged version of that report.

The study was conducted to assess the following:

- Public knowledge of and attitudes toward trapping in Maine.
- Knowledge of and attitudes toward furbearer species among residents, hunters, trappers, and landowners.
- Attitudes toward furbearer management.
- Reasons people support or oppose trapping.
- Human-wildlife conflicts.
- Participation in hunting and trapping, as well as other outdoor recreation, including wildlife-associated recreation.
- Motivations for participating in trapping.
- Species hunted and trapped, and use of furbearer species.
- Satisfactions and dissatisfactions with hunting and trapping, and constraints to participation.
- Perceptions of the Department among the four constituent groups (residents, hunters, trappers, and landowners).
- Regional differences in attitudes, opinions, perceptions, and preferences, with a regional breakdown of the state to include the North/East Region, the Central Region, and the South Region.

The overall project included the following components:

- A multi-modal scientific, probability-based survey, administered by Responsive Management, of the following populations:
 - General population of Maine residents.
 - Licensed hunters (both residents and nonresidents).
 - Licensed trappers (both residents and nonresidents).
 - Private landowners of large tracts of land.
 - Industrial/commercial landowners of extremely large tracts of timber land and/or other open land.
- Regional public meetings open to the general population of Maine, mediated by Responsive Management.
- An online public input forum open to the general population of Maine, facilitated by Responsive Management.
- Focus groups of residents, hunters, trappers, and animal rights advocates, conducted by Responsive Management.

As part of this project, this abridged report (53 pages) and a full version of this report (535 pages) were prepared. This is the abridged report

Specific details of the research methods are presented in the following pages. Note that the full methods are included in the full report; this version does not show all of the figures in the methods section.

MULTI-MODAL SCIENTIFIC SURVEY

The survey used a multi-modal approach that included multiple forms of contact (email, mail, and/or telephone) and two survey modes (online and telephone surveys). This multi-modal approach was used to ensure the most extensive coverage possible of each sample group, meaning potential respondents who could not be reached using one form of contact could be contacted using another.

As previously mentioned, the following five populations were sampled and surveyed: the general population of Maine residents (note that this group is interchangeably referred to as the general population or residents), licensed hunters, licensed trappers, private landowners of large tracts of land (25 acres or more), and a small group of commercial/industrial owners of extremely large tracts of land (100,000 acres or more). Some questions in the survey pertained to all five sample groups, while other questions were asked of only certain groups for which the questions were applicable.

The general population, licensed hunter, licensed trapper, and private landowner samples were each stratified by three regions in Maine: the North/East Region, the Central Region, and the South Region. The regions were determined by zip code. (See Figure 1.1 on page 4 for a map of the survey regions.) The licensed hunter and licensed trapper samples also included a nonresident stratum. The commercial/industrial landowner population is too small to sample; therefore, no stratification was used for this group and a census of the entire population was attempted. Overall, the surveys were administered from October to December 2019. Table 1.1 provides a breakdown of the sample groups, stratification, number of completed surveys, and survey administration. Table 1.2 shows the sampling errors.

Table 1.1. Survey Sample and Administration

Population	Sample Strata	Completed Surveys		Types of Contact	Survey Modes	Survey Administration Dates
		Strata	Total			
General Population (ages 18+)	North/East Region	212	621	Mail Telephone	Online Telephone	October 30 to November 22, 2019
	Central Region	207				
	South Region	202				
	Nonresidents					
Licensed Hunters (ages 16+)	North/East Region	338	1,245	Email Mail Telephone	Online Telephone	November 4 to November 22, 2019
	Central Region	355				
	South Region	300				
	Nonresidents	252				
Licensed Trappers (ages 16+)	North/East Region	179	541	Email Mail Telephone	Online Telephone	November 5 to November 22, 2019
	Central Region	199				
	South Region	108				
	Nonresidents	55				
Private Landowners (25+ acres)	North/East Region	100	305	Mail Telephone	Online Telephone	November 5 to November 22, 2019
	Central Region	103				
	South Region	102				
	Nonresidents					
Commercial/Industrial Landowners (100,000+ acres)			7	Email Telephone	Telephone	November 19 to December 2, 2019

Table 1.2. Sampling Errors

Population	Sample Strata	Population	Sample Size (Completed Surveys)	Sampling Error (Percentage Points)
General Population (ages 18+)	North/East Region	20,343	212	+/- 6.696
	Central Region	549,442	207	+/- 6.810
	South Region	592,846	202	+/- 6.894
	Nonresidents			
	Total	1,162,631	621	+/- 3.932
Licensed Hunters (ages 16+)	North/East Region	31,742	338	+/- 5.302
	Central Region	65,879	355	+/- 5.187
	South Region	42,170	300	+/- 5.638
	Nonresidents	24,539	252	+/- 6.142
	Total	164,330	1,245	+/- 2.767
Licensed Trappers (ages 16+)	North/East Region	1,222	179	+/- 6.770
	Central Region	1,734	199	+/- 6.538
	South Region	780	108	+/- 8.759
	Nonresidents	114	55	+/- 9.548
	Total	3,805	541	+/- 3.907
Private Landowners (25+ acres)	North/East Region	Undetermined	100	
	Central Region	Undetermined	103	
	South Region	Undetermined	102	
	Nonresidents			
	Total	Undetermined	305	
Commercial/ Industrial Landowners (100,000+ acres)	Total	12	7	

Note that the total number in the population of private landowners of 25 or more contiguous acres in Maine is not immediately discernible without extensive property and deed research in each individual county of Maine. While a sample of likely owners of large tracts of land was obtained from a professional sample provider, Responsive Management does not have a verifiable population size to calculate sampling error. Furthermore, the proportions of landowners within the total population cannot be calculated at the regional level; therefore, the strata data cannot be accurately weighted and put together proportionately to examine the results statewide. For this reason, the survey results for private landowners in this report are shown only by region and not statewide.

As previously mentioned, the commercial/industrial landowner population is too small to sample. A list of these extremely large landowners was provided by the Department, and only 12 unique records were in the database. Therefore, a census was attempted, and there is no sampling error to report.

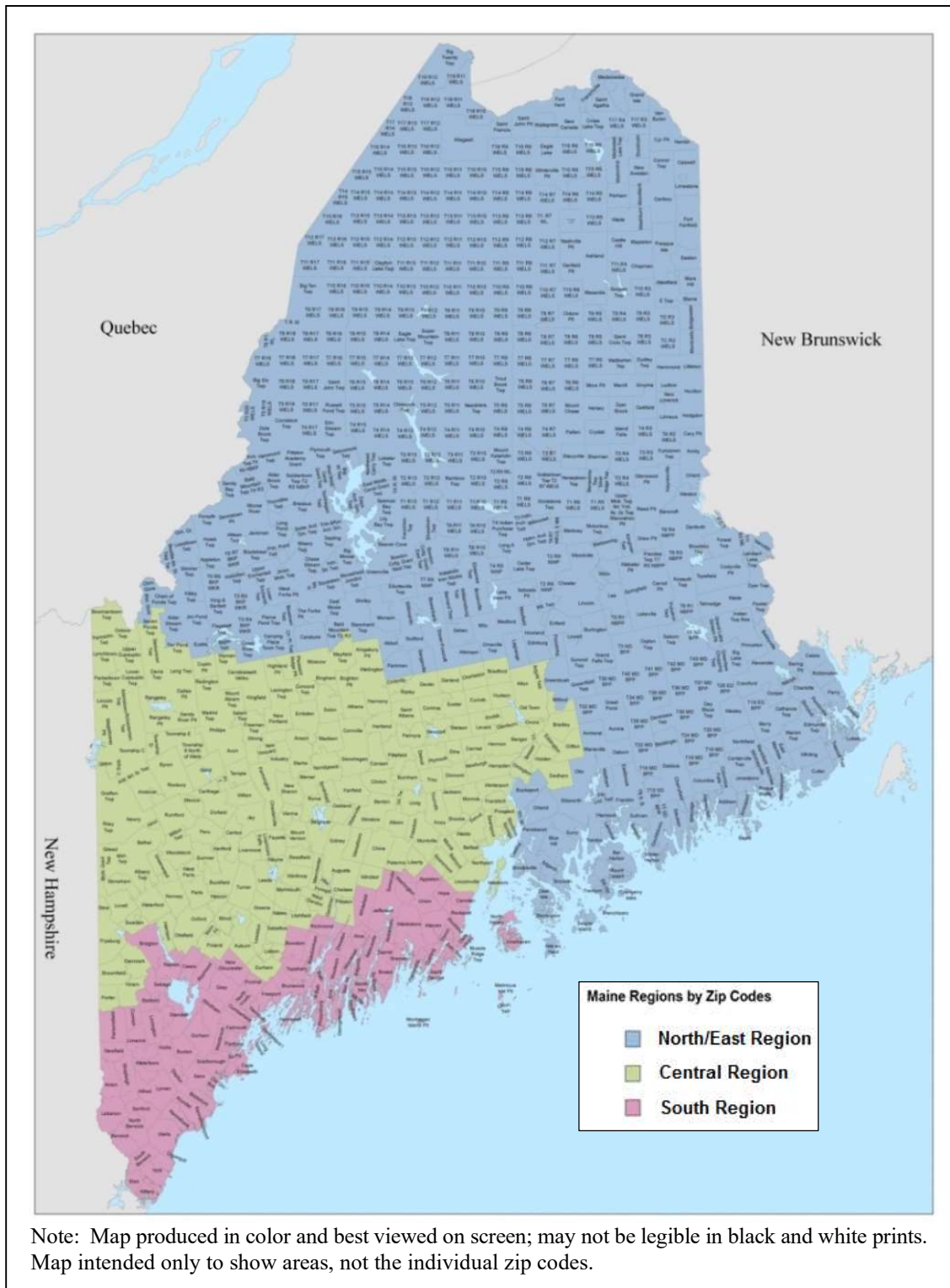


Figure 1.1. Maine Regions for Study

Note that other Department documents sometimes refer to the North/East Region as the “North/Downeast Region.”

QUESTIONNAIRE DESIGN

The survey questionnaire was developed cooperatively by the Department and Responsive Management, based on the goals of the study and the research team's familiarity with hunting, trapping, and furbearer management. The survey was computer coded for both online surveying and telephone surveying.

The online survey was coded in an online survey platform. Note that the online survey was closed, meaning it was available only to respondents who were specifically selected for the survey and subsequently provided with the direct Uniform Resource Locator (URL) address (or web address) for the survey and a unique access code required to enter the survey. Respondents could complete the survey only once. The survey could not be accessed through a general internet search.

The telephone survey was coded using Responsive Management's computer-assisted telephone interviewing (CATI) system. Note that the computer only controls which questions are asked and allows for immediate data entry; the telephone survey is administered by a live interviewer.

For both online and telephone, the survey instrument was programmed to automatically skip questions that did not apply and to substitute phrases in the survey based upon previous responses, as necessary, for the logic and flow of the interviews. One survey questionnaire was used because the majority of questions were given to all sample groups, with different paths and the use of wording substitutions, where necessary, to make the wording specific to the group being surveyed.

Responsive Management conducted pre-tests of the survey questionnaire in both modes to ensure proper wording, flow, and logic in the surveys. Both the online and telephone versions produced data that could be exported directly into Responsive Management's data analyses programs.

SURVEY SAMPLES

The following five populations were surveyed for this study:

- General population of Maine residents ages 18 and older.
- Licensed hunters ages 16 and older.
- Licensed trappers ages 16 and older.
- Private landowners of tracts of land that are 25 or more contiguous acres.
- Commercial/industrial landowners of 100,000 acres or more.

This section provides pertinent details for each population and sample for this study. Note that licensed hunters and trappers are discussed together due to the similarities of the sampling process.

Sample of Residents

General population residents of Maine were sampled using an Address-Based System (ABS) to provide complete coverage and ensure that every Maine resident within a given region had an equal chance of being contacted for the survey. The ABS system samples physical addresses; every parcel of land with a residence and every lot in urban areas has an address associated with it, providing complete coverage when using ABS. The ABS general population resident sample was obtained from Marketing Systems Group (MSG), a firm specializing in providing scientific survey samples representative of the general population.

A reverse phone-match, which attaches a telephone number to an address, was also performed on the ABS sample. The reverse phone-match provided wireless and landline phone numbers, allowing potential respondents to be contacted by mail and/or phone to further ensure complete coverage. Multiple types of contact provided complete coverage regardless of whether residents had access to a telephone (to complete the survey by telephone) or the internet (to complete the survey online). The contact procedures are further discussed later in this section.

The sampling plan of the general population of Maine residents was designed to achieve a representative sample of residents both statewide and at the regional level for each of the Department's three regions (see Figure 1.1). The sample was stratified into the three regions previously discussed, with a pre-determined goal of completed surveys among residents in each region. Regional stratification was employed to achieve an acceptable sample size in each region (for the analysis of statewide results, the data were weighted so that the regions were in their proper proportions).

Samples of Hunters and Trappers

The Department provided a database of licensed hunters and another database of licensed trappers; each person in each database had a license that was valid for 2018 or 2019. Each database contained names and postal mail addresses of all hunters/trappers. Additionally, some of the hunters and trappers in the databases had telephone numbers and/or email addresses. From each database, a random sample was pulled for each of the three regions and for nonresidents. Potential respondents were contacted by email, mail, and telephone. The contact procedures are further discussed later in this section.

The sampling plan of licensed hunters and trappers was designed to achieve a representative sample of each population separately, both in its entirety and at the regional level for each of the Department's three regions (see Figure 1.1). The sample was stratified into the three regions previously discussed and included a fourth stratum of nonresident license holders, with a pre-determined goal of completed surveys in each stratum. Stratification was employed to achieve an acceptable sample size in each stratum.

For overall results, licensed hunters and licensed trappers were analyzed separately. The data were weighted so that the strata were in their proper proportions for each population, which were determined by their actual proportions in the databases. Note that some license holders were in both databases (i.e., they had both a hunting and a trapping license), and the sample design and subsequent tracking accounted for this, as each license holder was classified as being a hunter only, a trapper only, or as both. Those who are both a hunter and a trapper received the applicable survey questions for both groups and were included in the data and in the results for each separate sample.

Sample of Private Landowners

The sample of private landowners was obtained from a database of likely owners of large tracts of land, provided by MSG. A screener question in the survey ensured that all landowners owned at least 25 contiguous acres. Each record in the sample contained a name (albeit a few of the names were farm names rather than a person), a postal address, and a telephone number.

Potential respondents were contacted by mail and telephone. The contact procedures are further discussed later in this section.

The sample of private landowners was stratified into the three regions previously discussed (see Figure 1.1), with a pre-determined goal of completed surveys in each region. Stratification was employed to achieve an acceptable sample size in each region.

Note that the total number in the population of private landowners of 25 or more contiguous acres in Maine is not immediately discernible without extensive property and deed research in each individual county of Maine. The proportions of landowners within the total population also cannot be calculated at the regional level; therefore, the strata data cannot be accurately weighted and put together proportionately to examine the results statewide. For this reason, the survey results for private landowners in this report are shown only by region and not statewide.

Commercial / Industrial Landowners

A list of extremely large landowners was provided by the Department. Each of these landowners owned at least 100,000 acres and were typically commercial or industrial businesses. Each record in the database contained an entity name, a contact person, an email address, and a telephone number. There were 13 records in the database, but one was a duplicate, leaving a total of 12 extremely large landowners.

Responsive Management conducted a census of this group in that an attempt was made to survey an individual at every entity—in other words, these extremely large landowners were not sampled because all of them were contacted. This group was surveyed only by telephone, although initial contact was made by email. The contact procedures are further discussed later in this section.

Because this was a census, the results for this group are shown in tables that show the total number of respondents giving a particular response rather than percentages, which are unnecessary when reporting results with such a small population.

CONTACT PROCEDURES

Each group had different procedures for contact determined by available contact information, although there were similarities from group to group. During survey administration while potential respondents were being contacted, the Department posted an announcement on its website confirming the legitimacy of the study, explaining its purpose, and letting people know they could be contacted by Responsive Management to complete the survey. Figure 1.2 shows the Department website announcement.

The screenshot shows the website for the Maine Department of Inland Fisheries & Wildlife. The header includes the state logo, navigation menus for various services, and a search bar. The main content area features a news article titled "MDIFW NEWS: Responsive Management Conducting Furbearer Survey" dated October 30, 2019. The article text explains the survey's purpose, participation requirements, and provides contact information for the survey. A photograph of a beaver is included on the right side of the article. The footer contains contact information, social media links, and a copyright notice.

MDIFW Blog
October 30, 2019

MDIFW NEWS: Responsive Management Conducting Furbearer Survey

The Maine Department of Inland Fisheries and Wildlife is working with Responsive Management, an independent research firm specializing in natural resource and outdoor recreation issues, to conduct a survey on wildlife management issues in Maine. Responsive Management researchers will be distributing the survey by mail and email with a link to an online questionnaire, and interviewers will also be calling Maine residents to complete the survey by phone.

You do NOT have to participate in outdoor recreation or be knowledgeable about any specific issues to qualify for the survey-the researchers are looking for input from ALL residents. Also note that this is a scientific, probability-based survey, which means that you can only participate in the survey if you are randomly selected to do so. This is why your participation in the survey is so important: as a survey respondent you are representing many other Maine residents.

We encourage you to participate in the survey if you are invited to do so. The survey takes around 10 minutes to complete and the results will help the Maine Department of Inland Fisheries and Wildlife better understand residents' opinions and perceptions of important management issues. Thank you in advance for your input!

In addition to the survey, all Maine residents have the option of providing input on furbearer management via an online public input forum. The forum is accessible at www.maine-furbearerforum.org and includes three separate discussion portals devoted to specific aspects of furbearer management, including general furbearer management issues, hunting and trapping issues, and nuisance wildlife issues. Residents are encouraged to visit the forum and comment on the topics of interest to them. All public comments will be reviewed by the Maine Department of Inland Fisheries and Wildlife.

Credits
Maine.gov
Site Policies
Accessibility
Document Viewers
MDIFW Home
Sitemap

Information
Maine.gov
Site Policies
Accessibility
Document Viewers
MDIFW Home
Sitemap

Connect with Us
Facebook
Twitter
YouTube
Instagram

Contact Information
Physical Address:
284 State Street
Augusta, ME 04333-0041
Mailing Address:
41 State House Station
Augusta, ME 04333-0041
Phone: (207) 287-8000
Fax: (207) 287-8094 or (207) 287-6395
TTY: Maine Relay 711
Email us

Figure 1.2. Department Website Announcement Regarding the Survey

Contact of Residents

For the general population sample, all scientifically selected individuals had an address, and a phone-match provided telephone numbers when possible. Those with a telephone number were called by telephone, and those without a telephone number were mailed a postcard. As mentioned previously, this approach was used for complete coverage.

For those contacted by telephone, a five-callback design was used to maintain the representativeness of the telephone component of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all residents in the sample with a telephone number to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted at the time of initial contact, or a callback time was set that was more convenient for the respondent. Telephone surveying times were Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 8:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time.

Those in the general population sample without a telephone number were sent a postcard, which provided a direct URL address for the survey to take it online, as well as a toll-free number to call if they preferred to take the survey by telephone. The toll-free number allowed respondents to contact Responsive Management to take the survey by telephone at that time or schedule another time for the telephone interview. The postcard included the logo of the Department to assure recipients that the survey was legitimate.

Each postcard included a unique access code that the respondent had to enter in the online survey or give to the interviewer to complete the survey by telephone. The access code served as a unique identifier and ensured that only those who were selected for the survey sample could take the survey, that respondents who had taken the survey would not be further contacted, and that respondents could take the survey only once. The survey could not be accessed through a general internet search. Figures 1.3 and 1.4 show the front and back of the postcard for the general population.



Figure 1.3. Front of the General Population Contact Postcard

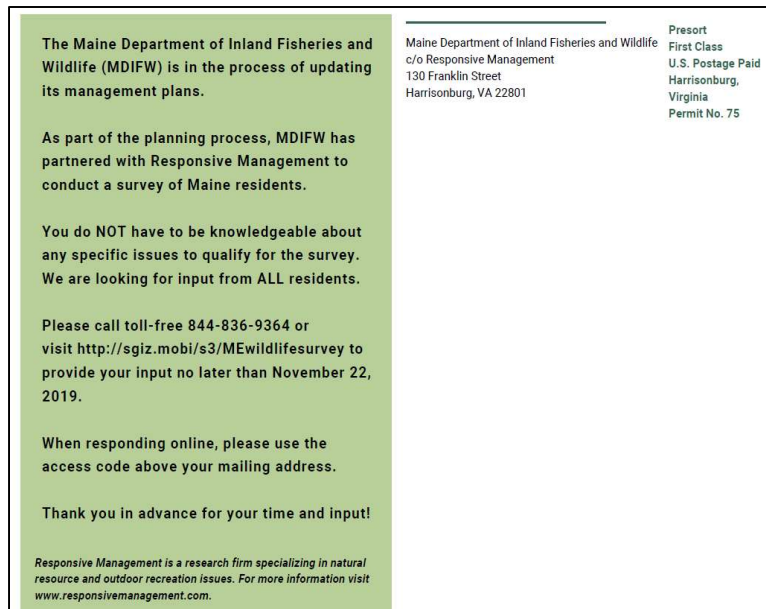


Figure 1.4. Back of the General Population Contact Postcard

Contact of Hunters and Trappers

The samples of hunters and trappers were randomly selected prior to determining the contact options for each respondent. In other words, the samples were completely random from the database of licensed hunters and licensed trappers. After they were selected, a determination was made regarding the contact procedures based on the forms of contact that the record for each potential respondent contained.

Those hunters and trappers in the sample with an email address were first contacted by email with an invitation to take the survey. The email contained a direct link to the online survey, as well as a brief description of the purpose of the survey. Note that incorrect and failed email addresses that could not be corrected were removed, and the hunter/trapper was then returned to the sample to be contacted by telephone (if a number was available) or by postcard, as described in the following pages.

As many as three emails were sent to hunters and trappers in the sample with valid email addresses: one initial email and two reminder emails. The initial emails were sent to hunters on November 4, 2019, and to trappers on November 5, 2019. Reminder emails were sent to both hunters and trappers who had not yet responded to the survey on November 8 and again on November 15, 2019. Three example emails are shown in the report. Figure 1.5 shows the emails sent to those in the sample who were only hunters or only trappers (each group was sent a separate email). Figure 1.6 shows the email sent to those who had both a hunting and trapping license.

Dear Licensed Hunter,

The [Maine Department of Inland Fisheries and Wildlife \(MDIFW\)](#) is in the process of updating its statewide management plans and needs your feedback. As a licensed Maine hunter, we are asking you to please share your experiences and opinions with us.

[Click Here to Start the Survey](#)

To confirm that this survey is being conducted for MDIFW, please visit the Department's [website](#), scroll down the main page to LATEST NEWS on the left, and click on the 10/30/2019 news link, "Responsive Management Conducting Furbearer Survey." You can visit the MDIFW website here: <https://www.maine.gov/ifw/>.


For this study, MDIFW has contracted with Responsive Management, a survey research firm specializing in natural resource and outdoor recreation issues, to conduct a survey of Maine residents, hunters, trappers, and landowners. You are one of a small number of individuals with a Maine hunting license that has been chosen at random to participate, and your responses will represent many other hunters.

Your participation in the survey is entirely voluntary, and your response will never be shared with an outside party or linked to your name. The survey should take no more than 10 to 12 minutes to complete.

[Click Here to Start the Survey](#)

Thank you in advance for your time and participation. We look forward to your feedback.

Maine Department of Inland Fisheries and Wildlife



Dear Licensed Trapper,

The [Maine Department of Inland Fisheries and Wildlife \(MDIFW\)](#) is in the process of updating its statewide management plans and needs your feedback. As a licensed Maine trapper, we are asking you to please share your experiences and opinions with us.

[Click Here to Start the Survey](#)

To confirm that this survey is being conducted for MDIFW, please visit the Department's [website](#), scroll down the main page to LATEST NEWS on the left, and click on the 10/30/2019 news link, "Responsive Management Conducting Furbearer Survey." You can visit the MDIFW website here: <https://www.maine.gov/ifw/>.

For this study, MDIFW has contracted with Responsive Management, a survey research firm specializing in natural resource and outdoor recreation issues, to conduct a survey of Maine residents, hunters, trappers, and landowners. You are one of a small number of individuals with a Maine trapping license that has been chosen at random to participate, and your responses will represent many other trappers.

Your participation in the survey is entirely voluntary, and your response will never be shared with an outside party or linked to your name. The survey should take no more than 10 to 12 minutes to complete.

[Click Here to Start the Survey](#)

Thank you in advance for your time and participation. We look forward to your feedback.

Maine Department of Inland Fisheries and Wildlife




Figure 1.5. Email Sent to Licensed Hunters (left) and Licensed Trappers (right) Inviting Them to Take the Survey

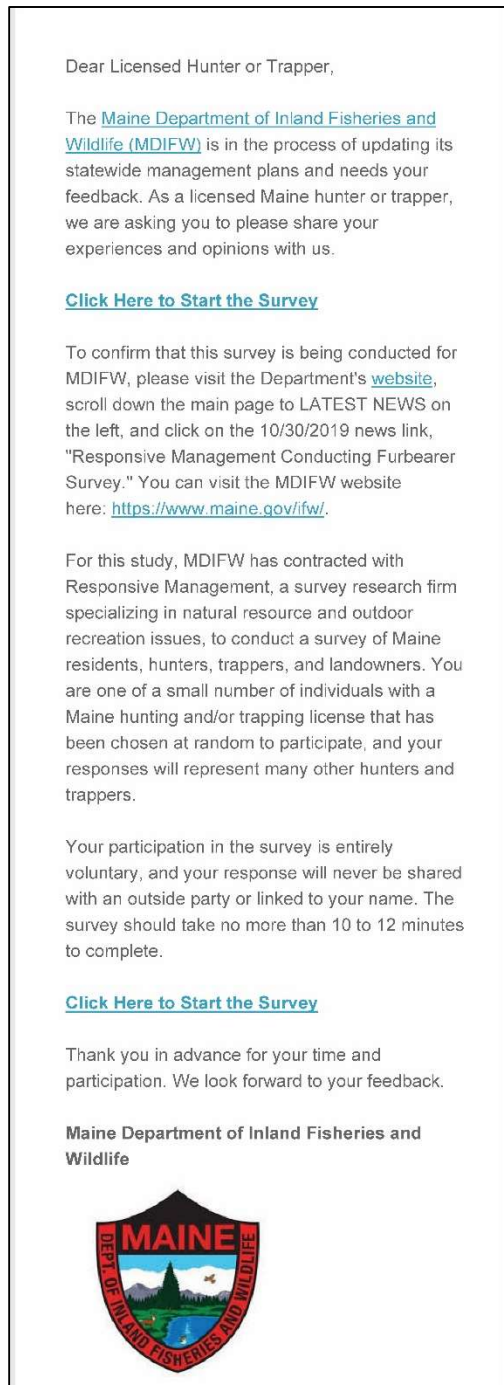


Figure 1.6. Email Sent to Those Who Had Both a Hunting and Trapping License Inviting Them to Take the Survey

For those contacted by telephone, the same five-callback design and calling times were used as with the general population to maintain the representativeness of the telephone component of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all hunters and trappers in the sample with a telephone number to participate.

Those hunters and trappers without either an email address or a telephone number were sent a postcard. The postcards were the same as the example for the general population shown previously (Figures 1.3 and 1.4) with slight wording adjustments so that it was directed toward hunters and trappers rather than Maine residents. Additionally, the direct URL address provided for the survey was different to assist with tracking samples. The postcards also included a toll-free number if potential respondents preferred to take the survey by telephone.

As with the general population postcards, each postcard included a unique access code that the hunter or trapper had to enter in the online survey or give to the interviewer to complete the survey by telephone. The access code served as a unique identifier and ensured that only those who were selected for the survey sample could take the survey, that respondents who had taken the survey would not be further contacted, and that respondents could take the survey only once. The survey could not be accessed through a general internet search.

Contact of Private Landowners

The sample of private landowners contained a name, postal address, and telephone number for each record. Potential respondents were contacted by mail and/or telephone. Those contacted by telephone were surveyed at that time, or an appointment time was set for a survey time that was more convenient to the landowner. Those contacted by postcard were provided a direct URL address for the survey to take it online, as well as a toll-free number to call if they preferred to take the survey by telephone.

For those contacted by telephone, the same five-callback design and calling times were used as with the general population and licensed hunters and trappers to maintain the representativeness of the telephone component of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all private landowners in the sample to participate.

For those contacted by mail, the postcards were the same as the example for the general population shown previously (Figures 1.3 and 1.4) with slight wording adjustments so that it was directed toward landowners. Additionally, the direct URL address for the survey was different to assist with tracking samples.

As with the general population and licensed hunter and trapper postcards, each postcard included a unique access code that the landowner had to enter in the online survey or give to the interviewer to complete the survey by telephone. The access code served as a unique identifier and ensured that only those who were selected for the survey sample could take the survey, that respondents who had taken the survey would not be further contacted, and that respondents could take the survey only once. The survey could not be accessed through a general internet search.

Contact of Commercial/Industrial Landowners

All landowners in the database of commercial/industrial landowners of at least 100,000 acres that was provided by the Department were contacted by email and telephone; all surveys were completed by telephone. The initial contact of the individual representatives for the entities in the database was made by email. The email message was personalized to the individual and requested a reply either by email or by calling Responsive Management to schedule a time for the survey to be administered.

Three days after the initial email was sent, those who had not responded were called to attempt to set up a time for the survey. Messages were left at those telephone numbers that were not answered. At least five attempts were made to contact each person who had not responded. In total, 7 of the 12 commercial/industrial landowners on the list were surveyed.

DATA COLLECTION

Contact and survey administration primarily occurred throughout November 2019; actual survey administration dates were provided previously in Table 1.1. This section provides descriptions of the data collection facilities and quality control procedures.

Data Collection and Surveying Facilities

A central data collection and polling site at the Responsive Management office allowed for rigorous quality control over the telephone interviews and online data collection. Responsive Management maintains its own in-house telephone interviewing and data gathering facilities. These facilities are staffed by interviewers and data managers with experience conducting computer-assisted telephone interviews and online surveys on the subjects of outdoor recreation and natural resources.

To ensure the integrity of the telephone survey data portion of the study, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction include lecture and role-playing. The survey center managers and other professional staff conducted a project briefing with the interviewers prior to the administration of the survey. Interviewers were instructed on study goals and objectives, the details of the study, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey questionnaires, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire.

Quality Control

For both the online and telephone versions of the survey, the questionnaire was programmed to branch and substitute phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. The survey questionnaire also contained error checkers and computation statements to ensure quality and consistent data.

As previously discussed, the online survey was closed, meaning it was available only to respondents who were specifically selected for the survey and subsequently provided with a direct URL address for the survey and a unique access code required to enter the survey. The survey could not be accessed through a general internet search.

For the telephone interviews, the survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey center managers and statisticians monitored the telephone data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge to evaluate the performance of each interviewer and ensure the integrity of the data.

After both the online and telephone surveys were obtained, the survey center managers and/or statisticians checked each completed survey to ensure clarity and completeness. Table 1.1 (page 2) shows the number of completed surveys obtained for each population being surveyed, including the regional breakdown of the general population, licensed hunters and trappers, and private landowners.

ANALYSIS OF SURVEY DATA

The survey data were analyzed using IBM SPSS as well as Responsive Management's proprietary software. The general population data were weighted by age, gender, and outdoor recreation participation within each region, and then the regions were weighted to be in their proper proportions for statewide data. The hunters and trappers were weighted by region for overall results. No weighting was applied to the landowner data, and the landowner results are shown only by region.

REGIONAL PUBLIC MEETINGS

To obtain public input from any Maine residents who chose to provide it, Responsive Management facilitated four public meetings. The ideal structure for public meetings combines a neutral, third-party mediator with an agency presence. These meetings followed that structure, mediated by Responsive Management's trained staff.

The meetings were publicized on the Department website (Figure 1.7 shows the website announcement), as well as in various news media outlets and the websites of Maine outdoors organizations. Additionally, emails were sent by the Department to its list of approximately 250,000 stakeholders. These emails were sent on November 8 and 19, and December 2, 2019.

The meetings were held in Portland on December 3, Orono on December 3, Augusta on December 4, and Presque Isle on December 5, 2019. The public meetings provided a structured open forum in which Maine residents were able to share with Department staff their thoughts on priority issues and concerns related to furbearer management and trapping in the state.

Each meeting was facilitated by Responsive Management staff and began with a brief presentation of selected results from the general population portion of the survey regarding furbearer management in the state. Rules for public input were then explained to the attendees, including one speaker at a time, a time limit for comments made during the meeting, restrictions on open debate and challenges to other members of the audience, and adherence to the established topic of the meeting. These rules are important because back-and-forth comments among participants are discouraged during professionally mediated public meetings.

Public meetings were held in hotel conference rooms (Portland, Orono, and Presque Isle) and a civic center (Augusta) and generally lasted approximately 2 to 3 hours. The public meeting schedule was distributed to major media and news outlets around the state several weeks prior to the meetings. The meeting schedule was also posted on sportsmen's blogs and outdoor interest websites and was included in an email message sent by the Department to all Maine hunting and trapping license holders with a valid email address. Responsive Management also publicized the meeting schedule via the online public forum devoted to furbearer management topics (see further discussion of the online forum in the next section).

The meeting contents were analyzed qualitatively for this report. As appropriate for research entailing observation and discussion, no quantitative statistical analyses were conducted on the comments from the public meetings.

The screenshot shows the website for the Maine Department of Inland Fisheries & Wildlife. The page features a navigation menu with categories like 'About', 'Hunting & Trapping', 'Fishing & Boating', 'ATV & Snowmobile', 'Fish & Wildlife', 'Game Wardens', 'Maine Wildlife Park', 'Programs & Resources', and 'News & Events'. The main content area displays a news article dated November 15, 2019, titled 'MDIFW NEWS: Department Seeks Public Input On Maine's Furbearers At Public Meetings And Online Forum'. The article text includes:

For Immediate Release: November 15, 2019

Department Seeks Public Input On Maine's Furbearers At Public Meetings And Online Forum

AUGUSTA, Maine -- The Maine Department of Inland Fisheries and Wildlife wants to hear your ideas and opinions about the management of Maine's furbearers - a diverse group of mammals that includes coyote, red and gray fox, bobcat, fisher, marten, raccoon, skunk, short and long-tailed weasels, mink, otter, beaver, muskrat, and opossum.

During the first week of December, the Department will hold a series of statewide public meetings that will focus on furbearers. The meetings are designed to gather ideas and information from the public that will help shape management of these species over the next fifteen years.

"We are looking for input from the public that will help guide our furbearer management efforts over the next fifteen years," said Nate Webb. We've already conducted extensive public surveys, but this is your chance to provide additional input on the management of these species for years to come.

In addition to public meetings, IFW is creating a dedicated online forum at <https://www.maine-furbearerforum.org/> to provide a further opportunity for residents to voice their opinions on furbearer issues.

Starting November 7, residents will be able to access the online forum website and leave comments and suggestions at <https://www.maine-furbearerforum.org/>. The website will stay live until December 7, at which point comments will be reviewed. Residents are encouraged to log onto the website during the month of November to submit responses to prepared questions as well as interact with one another in an exchange of opinions and ideas.

There will also be a series of public meetings around the state to hear peoples thoughts and ideas regarding species management. A list of locations and time and date are listed below.

Furbearer Management Public Meetings

Portland: Tuesday, December 3 at 6:30 p.m.; Fireside Inn and Suites 81 Riverside Street, Portland, ME 04103

Orono: Tuesday, December 3 at 6:30 p.m.; Black Bear Inn, 4 Godfrey Drive, Orono, ME 04473

Augusta: Wednesday, December 4 at 6:30 p.m.; Augusta Civic Center, 76 Community Drive, Augusta, ME 04330

Presque Isle: Thursday, December 5 at 6:30 p.m.; Northeastland Hotel, 436 Maine Street, Presque Isle, ME 04769

The meetings and online forum are part of a larger study designed to assess priorities for furbearer management, including the issues residents see as important; their attitudes toward the current and desired population levels of various species; management techniques for these species; and any ideas for potential changes to the current management programs. Input from the public will help MDIFW create the best management plans possible.

MDIFW contracted with Responsive Management, an internationally recognized public opinion research firm, to conduct the research for the state. Responsive Management is handling the facilitation of the public meetings as well as the administration of the online forum. The firm has also conducted focus groups and surveys with Maine residents, hunters, trappers, and landowners as part of the research.

Maine residents may have received a call, email, or letter in recent weeks inviting them to participate in one of the scientific surveys conducted for the project. The next phase of the project calls for a wider opportunity for residents to submit comments and suggestions in an open-ended manner via the public meetings and online forum. For more information about Responsive Management, please visit www.ResponsiveManagement.com.

For further information about the research study, please contact Nate Webb, Maine Department of Inland Fisheries and Wildlife, at nathan.webb@maine.gov.

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The footer of the website includes sections for 'Credits', 'Information' (with links to Maine.gov, Site Policies, Accessibility, Document Viewers, MDIFW Home, and Sitemap), 'Connect with Us' (with social media icons for Facebook, Twitter, YouTube, and Instagram), and 'Contact Information' (with physical and mailing addresses, phone, fax, TTY, and email).

Figure 1.7. Department Website Announcement Regarding the Public Meetings and Online Public Input Forum

ONLINE PUBLIC INPUT FORUM

To gather additional qualitative data and to provide the opportunity for all Maine residents to contribute their opinions and provide input on furbearer management, the researchers developed an online public forum featuring open-ended discussion threads. The primary purpose of the online forum was to allow the public—particularly those who could not attend any of the public meetings or who were hesitant to speak in front of others at a public meeting—to provide input. The online forum was available to the public November to December 2019.

The forum was maintained on a dedicated website (www.maine-furbearer-forum.org). The forum homepage (shown in Figure 1.8) explained that the research was being conducted by Responsive Management, explained what furbearers are, and explained other elements of the project. The online forum was live prior to the public meetings, and the homepage indicated when and where the public meetings would be held.

An *About the Project* page was included that explained that the Department was updating its statewide furbearer management plan, thus putting the project in context, and again explained that the research was being conducted by Responsive Management (Figure 1.9). This page listed the information being sought from this study.

The overall forum website included sub-forum pages on specific aspects of the issues. The sub-forum themes were general furbearer management issues (Figure 1.10), hunting and trapping issues (Figure 1.11), and human-wildlife conflicts, or nuisance wildlife, issues (Figure 1.12). Hereinafter, the term “forum” will be used to refer to any one of these three sub-forums. Each forum posed questions as a way to facilitate discussion and comments on the page.

Another page on the forum website was dedicated to information about the public meetings, encouraging all who wanted to participate to attend (not shown; see Figure 1.14 in the full report). The page showed the times and locations of the public meetings.

Contributors to the forum could comment anonymously or include personal information. As indicated previously, within each forum, specific questions about current and possible future furbearer management strategies were posed to get the discussion started; however, although questions and potential topics were offered by the researchers, contributors were encouraged to discuss other topics, as long as they pertained to furbearer management in the state. Forum visitors had the opportunity to engage with one another in a typical online discussion format, as well. Responsive Management maintained a moderating presence in each forum (e.g., removing comments that violated forum rules, such as those that personally attacked other commenters) but otherwise did not engage with forum participants in any way. Nine comments were removed by the forum moderator; however, every comment deleted from the public forum was saved by Responsive Management and later included in the analysis of forum content.

Finally, a contact page within the forum provided an email address at which to contact Responsive Management for any questions that contributors might have or to send completely confidential comments (not shown, see Figure 1.15 in the full report).

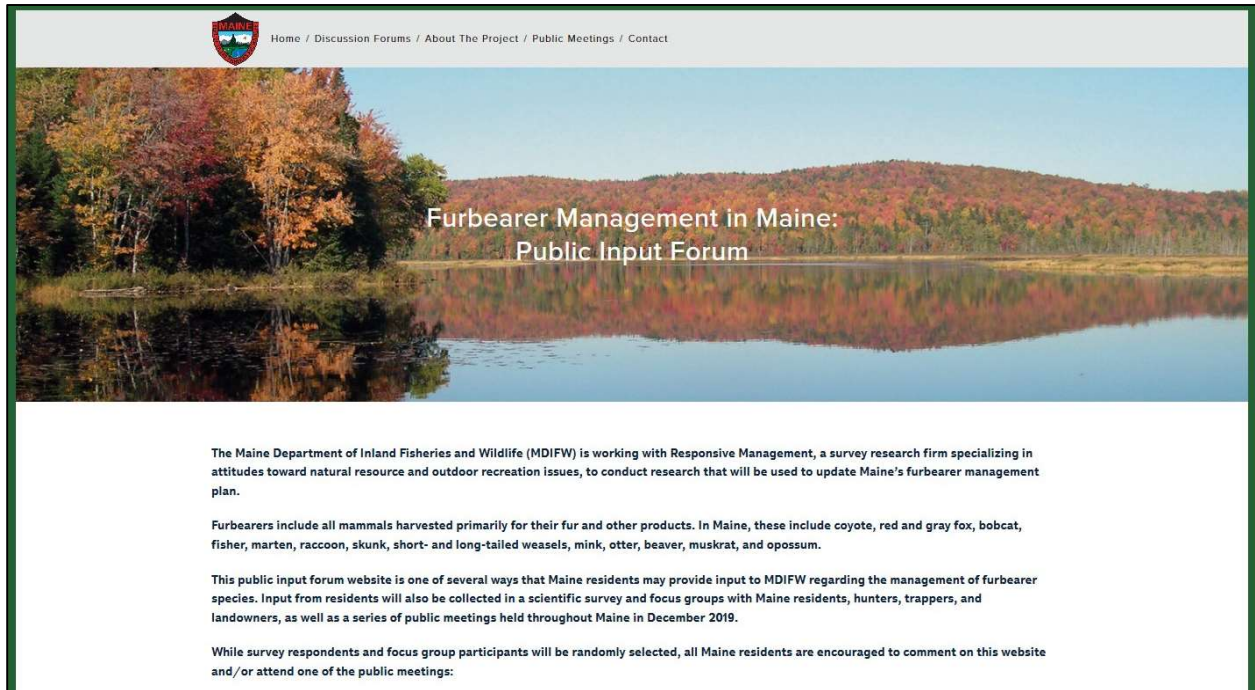


Figure 1.8. Online Forum Homepage

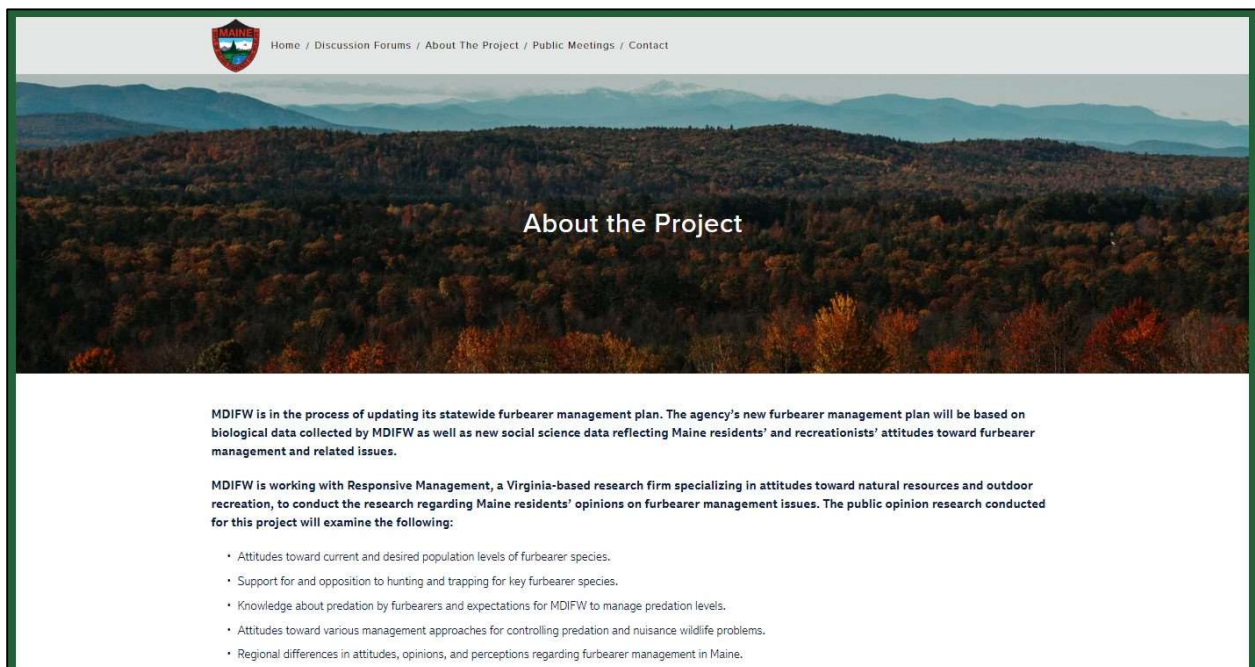


Figure 1.9. About the Project Page

Home / Discussion Forums / About The Project / Public Meetings / Contact

General Furbearer Management Issues

Maine's furbearer species include coyote, red and gray fox, bobcat, fisher, marten, raccoon, skunk, short- and long-tailed weasels, mink, otter, beaver, muskrat, and opossum.

Consider the following questions:

- Do you have any thoughts or concerns about the management of furbearers in Maine that you would like MDIFW to know about?
- Are you concerned about any furbearer species in particular? Which ones? Why?
- What specific information about furbearer management would you like to have from MDIFW?
- What issues about furbearer management should MDIFW consider in the future?

Please click on the "Comment" link below to post a comment.

Figure 1.10. General Furbearer Management Issues Forum

Home / Discussion Forums / About The Project / Public Meetings / Contact

Hunting and Trapping Issues

Maine's furbearer species include coyote, red and gray fox, bobcat, fisher, marten, raccoon, skunk, short- and long-tailed weasels, mink, otter, beaver, muskrat, and opossum.

Consider the following questions:

- Do you hunt or trap furbearers? What would you like MDIFW to know about your experiences hunting and trapping furbearers in Maine?
- Do you have thoughts or concerns about current practices and regulations related to furbearer hunting and trapping in Maine? If so, what are they?
- What specific information about furbearer hunting and trapping in Maine would you like to have from MDIFW?
- What issues about furbearer hunting and trapping in Maine should MDIFW consider in the future?

Please click on the "Comment" link below to post a comment.

Figure 1.11. Hunting and Trapping Issues Forum

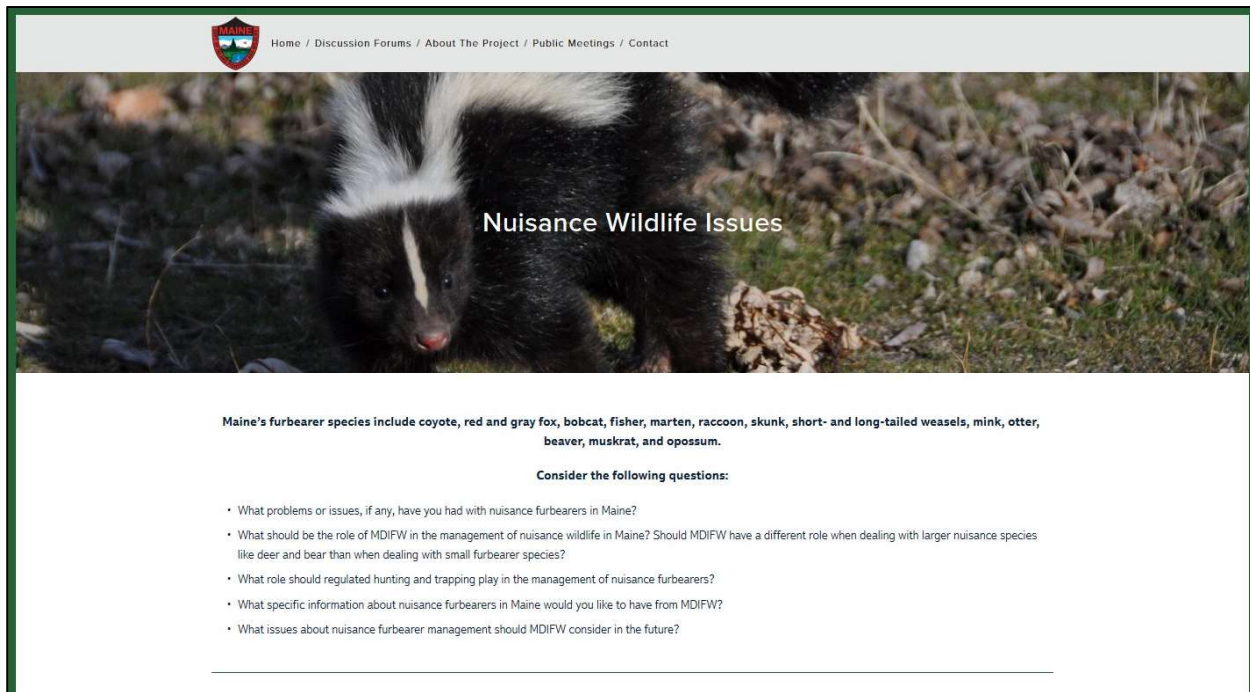


Figure 1.12. Nuisance Wildlife Issues Forum

Responsive Management coordinated with the Department to launch the online forum. The Department distributed releases and several reminders to a variety of outlets in an effort to ensure widespread awareness of the forum opportunity among Maine residents, hunters, trappers, and landowners. The news releases were sent to media outlets and outdoor interest websites, and email messages were sent to hunting and trapping license holders and others on the Department's email lists. The news releases and email messages included information on the forum purpose, website address, launch date, and active dates. Notices were also posted on the Department's website and social media platforms (Figure 1.7 on page 16 shows the Department's website announcement). After forum comments were submitted and the forum had been deactivated, Responsive Management conducted a content analysis of the results and discussion themes.

In addition to the online forum, Responsive Management maintained a dedicated email address available for residents to provide direct input into the study. This email address was listed on the online forum website as well as in news releases pertaining to the project. Comments from these confidential emails were considered and analyzed along with the other forum data.

FOCUS GROUPS

The project entailed four focus groups with the general population, hunters, trappers, and animal rights advocates held in Portland, Orono, and Presque Isle. The focus groups entailed in-depth, structured discussions with small groups (approximately 10 individuals) about their attitudes toward trapping and furbearer management in Maine. The use of focus groups is an accepted research technique for the qualitative exploration of attitudes, opinions, perceptions, motivations, constraints, and behaviors. Focus groups provide researchers with insights, new hypotheses, and understanding through the process of interaction.

Focus groups allow for extensive open-ended responses to questions, probing, follow-up questions, group discussion, and observation of emotional responses to topics—aspects that cannot be measured in a quantitative survey. Qualitative research sacrifices reliability for increased validity. This means that, although focus group findings cannot be replicated statistically as can survey findings (high reliability), they provide researchers with a more detailed understanding of the topics or issues of concern in the study (high validity).

The focus groups were conducted using a discussion guide. Each focus group was moderated by one of Responsive Management’s trained moderators with extensive knowledge of hunting, trapping, outdoor recreation, and wildlife management. The moderators, through the use of the discussion guide, kept the discussions within design parameters without exerting a strong influence on the discussion content. In this sense, the focus groups were non-directive group discussions that exposed the spontaneous attitudes, insights, and perceptions of participants regarding furbearer species in Maine and regulated trapping, their opinions on priority furbearer management issues, and other topics relevant to furbearer and wildlife management. All focus group discussions were recorded for further analysis. At the end of the focus groups, any questions that participants had regarding the study were answered.

Focus groups differ from public meetings and any open public forum in that focus group participants are not self-selected for participation. Anyone can attend public meetings or post comments to online forums, but focus group participants are selected and recruited from a scientific random sample of the population being studied. Screener questions are administered during the recruitment process to ensure the focus group participants meet the requirements for the group. The recruitment process is discussed later in this section.

FOCUS GROUP LOCATIONS

As indicated above, the focus groups were conducted in three locations as follows: a general population group in Orono on December 2, an animal rights group in Portland on December 2, a group of hunters and trappers in Presque Isle on December 4, and a general population group also in Portland on December 5, 2019. Host facilities and reservations were coordinated by Responsive Management in consultation with the Department; facilities included a professional focus group research facility as well as hotel conference rooms. Responsive Management ensured that each focus group room was set up appropriately, including seating, recording equipment, and food arrangements. Refreshments were provided to focus group participants, and each group discussion was approximately 2 hours in duration.

FOCUS GROUP PARTICIPANT RECRUITING

Responsive Management coordinated the recruitment of the focus groups, which was done either directly by Responsive Management or by the focus group facility staff (depending on the group). Among those who met the criteria for the focus groups (e.g., hunters), the selection was random. In this way, special interest groups or others with an agenda (i.e., either for or against trapping) could not “pack” the focus group in an attempt to sway or influence the research, which would negatively affect the utility of the findings. Focus group recruiters contacted potential participants by telephone and email. Potential participants were given a brief summary of the focus group topic, fully screened using a screener questionnaire, and, if qualified,

confirmed for attendance. The screener ensured that the focus group participants met the criteria established for each specific group, as well as applicable age requirements.

Confirmed participants were emailed or mailed (based on personal preference) a confirmation that included the date, time, and location of the focus group, as well as a map and directions to the focus group facility. Each participant was offered a reminder call before the focus group and provided a telephone number for directions or last-minute questions. To encourage participation, a monetary incentive of \$100 to \$125 was given to participants.

During the recruitment process, the recruiting manager maintained a progress table for each focus group that included participant name, address, contact telephone number, and essential participant characteristics. Each focus group's target was 10 participants. The recruiting manager ensured that all confirmation emails or letters were sent promptly to participants and that reminder telephone calls were made, as necessary, before the focus group. Reminder calls and interaction with potential participants helped ensure their attendance, resulting in quality participation.

FOCUS GROUP DISCUSSION GUIDES AND ANALYSIS

Each focus group was conducted using a discussion guide that allowed for consistency in the data collection. The discussion guide for each group included general questions as well as more specific questions addressing attitudes toward furbearer species and furbearer management concerns, as well as other pertinent topics such as regulated trapping and human-wildlife conflicts. Responsive Management conducted qualitative analyses of the focus groups through direct observation of the discussions by the moderators as well as through later observation and analysis of the recordings by other researchers. The organization and development of findings served as a third review of the focus groups as part of the qualitative analyses.

2. SUMMARY OF MAJOR FINDINGS

The following are the major findings from the research. These findings are a synthesis of all of the research components: the survey of the general population of Maine, the survey of hunters and trappers, a special data run of trapping opponents from the general population survey, the survey of large landowners, the public meetings, the online forum, and the focus groups.

The findings are arranged by theme because all of the components were used to develop the findings within each theme. The summary of major findings starts with a look at approval or disapproval of trapping and the nuances of those opinions.

APPROVAL OR DISAPPROVAL OF TRAPPING

- **Three quarters of Maine residents (75%) approve of regulated trapping in general, while 17% disapprove (the rest being neutral).**
Strong approval was at 44%, and moderate approval was at 31%. Note, however, that the 17% of Maine residents who *disapprove* of regulated trapping is not an insubstantial segment of the population: this equates to 806,717 adult Maine residents who approve of regulated trapping and 184,613 who disapprove. (Note that these figures do not include residents who gave a neutral or “don’t know” response to the trapping approval/disapproval question.)

- **There are some regional differences in approval and disapproval of trapping. For the regional analysis of this question, the North/East Region was divided into its constituent parts (i.e., the North Region and the East Region) as shown in Figure 2.1. The East Region has the lowest approval of trapping by far.**

Approval of regulated trapping in the East Region is at 55%, compared to 78% in the North Region (summed on unrounded numbers), 75% in the Central Region, and 77% in the South Region. Disapproval of regulated trapping is at 31% in the East Region, compared to 20% in the North Region, 13% in the Central Region (summed on unrounded numbers), and 19% of the South Region.

The division of the North/East into separate regions for this analysis was done because the initial survey result—that the North/East Region as a whole showed lower approval of trapping than did the South Region—seemed counterintuitive to the researchers. Separating the North/East Region into its constituent regions allowed for analysis of approval in the separate regions, thereby helping to clarify the findings.

Note that this is the only survey question for which the North/East Region was divided into its constituent parts. In other words, it is the only survey question that entailed analysis by four regions instead of three (the three-region approach was decided on by the steering committee at the outset of the project so that the furbearer survey sampling stratification would be consistent with the approach used for a big game management study conducted by Responsive Management for the Department in 2016).

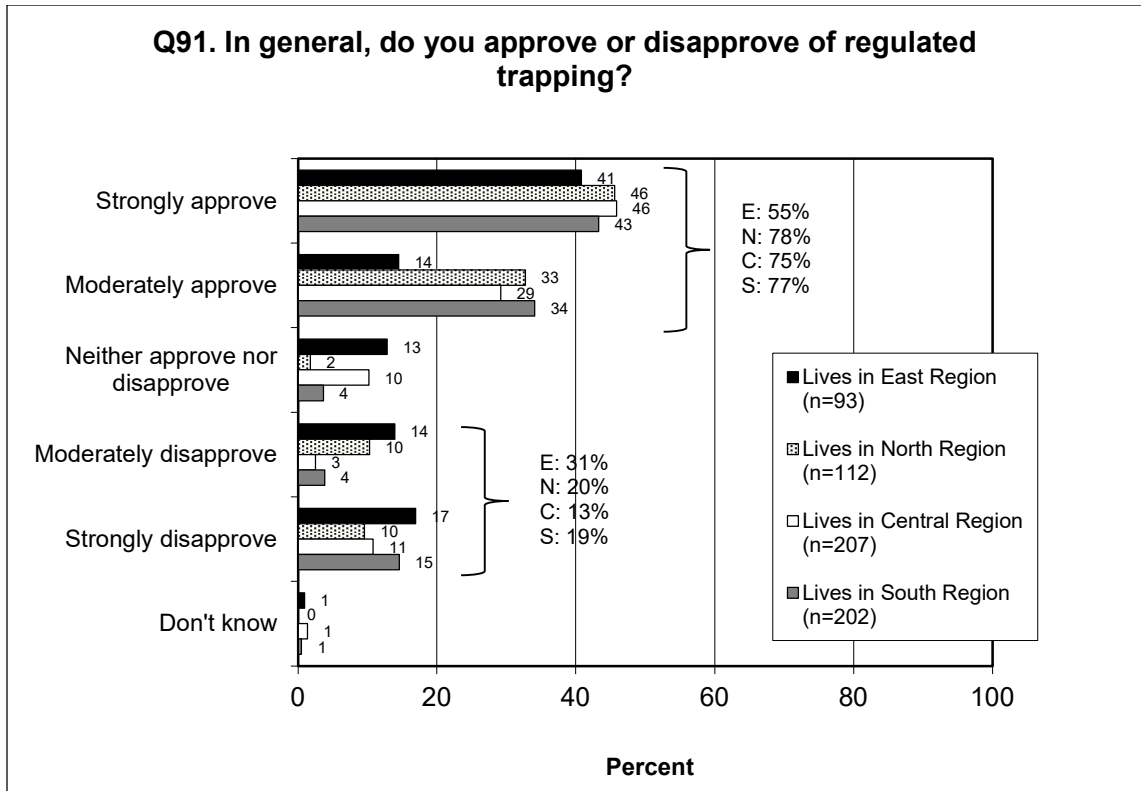


Figure 2.1. Approval and Disapproval of Regulated Trapping by Four State Regions

In reading the entire report, keep in mind that findings ascribed to the North/East Region as a whole reflect the merging of the North Region and the East Region (and any attendant differences between residents' attitudes and characteristics in the two regions) into a single study region.

The research explored more about approval and disapproval of trapping among various demographic and attitudinal groups, as detailed Table 2.1. The table looks at approval and disapproval among various groups based on demographic characteristics.



Table 2.1. Approval and Disapproval of Regulated Trapping by Various Groups Based on Demographic Characteristics

Respondent Group (by Demographic Characteristic)	Percent Who Approve of Regulated Trapping	Percent Who Disapprove of Regulated Trapping
General population	75	17
Licensed hunters (from hunter survey)	84	5
Licensed trappers (from trapper survey)	90	4
Landowners (from landowner survey)	76	16
Industrial/commercial landowners (from industrial/commercial landowner survey)	100	0
Anglers	85	8
Had problems with wildlife in past 2 years	83	12
Did not have problems with wildlife in past 2 years	70	21
Knows or ever knew a trapper (among non-trappers)	81	13
Never knew a trapper (among non-trappers)	67	23
Male	84	11
Female	67	23
White	77	17
Non-white	75	22
Lives in North Region	78	20
Lives in East Region	55	31
Lives in Central Region	75	13
Lives in South Region	77	19
Education level less than bachelor's degree	78	17
Education level of bachelor's degree or higher	75	17
Has children in household	82	10
Does not have children in household	73	21
Large city or urban area	81	11
Suburban area	81	9
Small city or town	79	15
Rural area on a farm	71	24
Rural area not on a farm	69	23
Younger than median age of 48	85	9
Median age of 48 or older	69	24
Table is based on responses to the survey question, "In general, do you approve or disapprove of regulated trapping?" Neutral and "don't know" responses are not included in the table.		

- **Characteristics associated with disapproval of regulated trapping include being female and being the median age of 48 years old or older.**

Strong disapproval of trapping among older and/or rural females is so persistent that it appears to influence a few other findings that run somewhat counter to expectations. For example, the survey found that residents of rural areas approve of trapping at lower rates than do residents of urban and suburban areas. A separate analysis comparing rural and non-rural males and females found that much of the overall disapproval among rural residents is driven by rural females, who are statistically more likely to *strongly* disapprove of trapping ($p < 0.01$) (Figure 2.2).

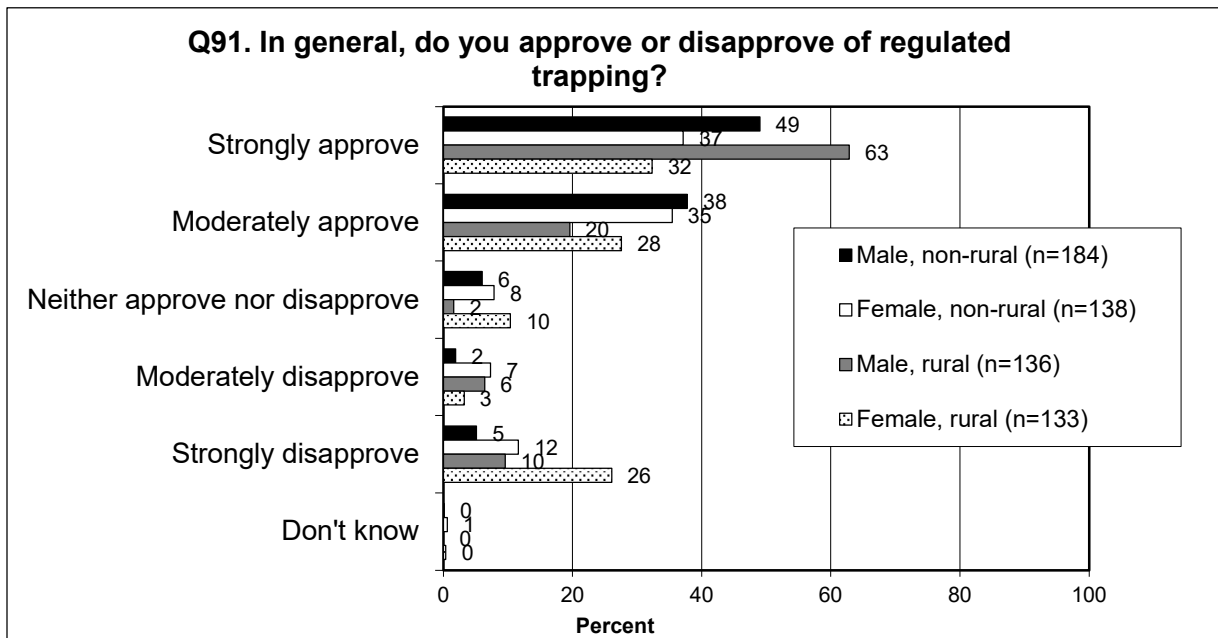


Figure 2.2. Approval and Disapproval of Regulated Trapping Among Rural and Non-Rural Males and Females

Similarly, the survey found that older residents approve of trapping at a lower rate than do younger residents: this tendency was influenced by older females, who are statistically more likely to *strongly* disapprove of trapping ($p < 0.01$) (also influential in this regard is the high rate of strong approval of trapping among younger males) (Figure 2.3).

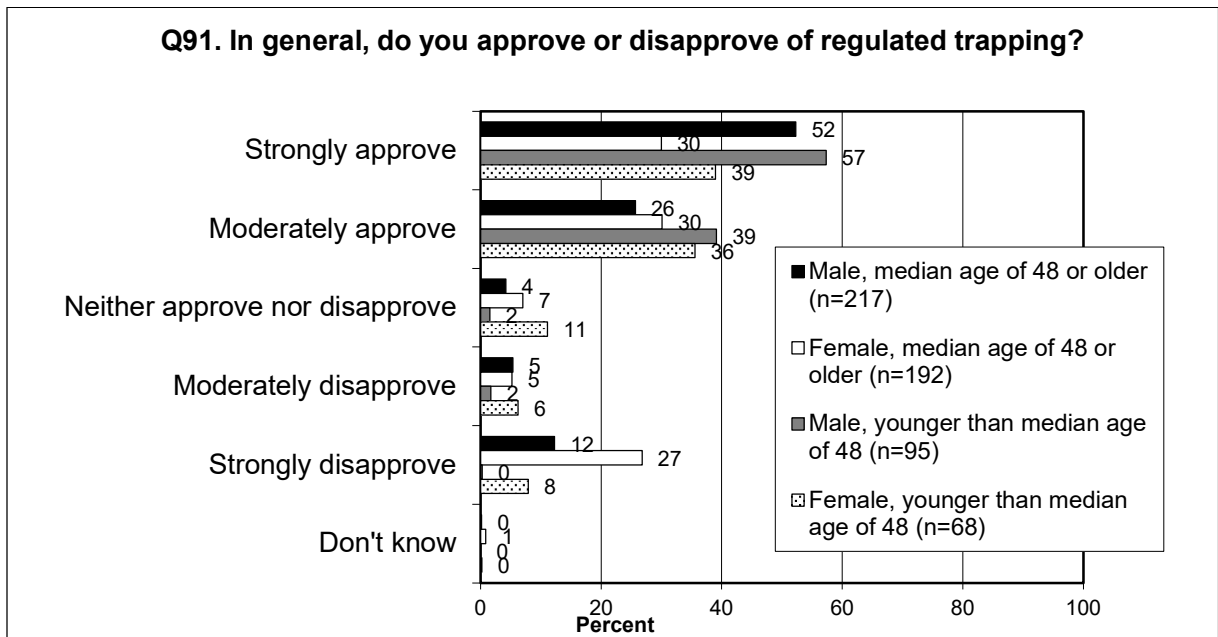


Figure 2.3. Approval and Disapproval of Regulated Trapping Among Younger and Older Males and Females

It is also possible that the phrase “regulated trapping” (as opposed to “legal trapping” or simply “trapping”) may have led to an alternate interpretation of the survey question regarding basic approval or disapproval. Respondents predisposed to being supportive of trapping may have interpreted the question as asking about *further* regulation of trapping, rather than simply trapping that is *regulated* as opposed to *unregulated*—this may have been objectionable to those who feel that trapping in Maine is already regulated enough, or that it is their inherent right to trap without regulation. This may have caused these individuals to say they strongly or moderately disapproved of what they perceived as additional trapping regulations.

- **An examination of other research about trapping shows that Maine is in the higher tier of states for approval of trapping.**

The last section of this report cites the studies used in this analysis, which looked at the U.S. as a whole and its component regions in one study and three states in another study. As can be seen in Figure 2.4, Wisconsin, Maine, and Indiana are in a markedly higher tier than the other entities. (See the final section of this chapter for the full look at these comparisons.)

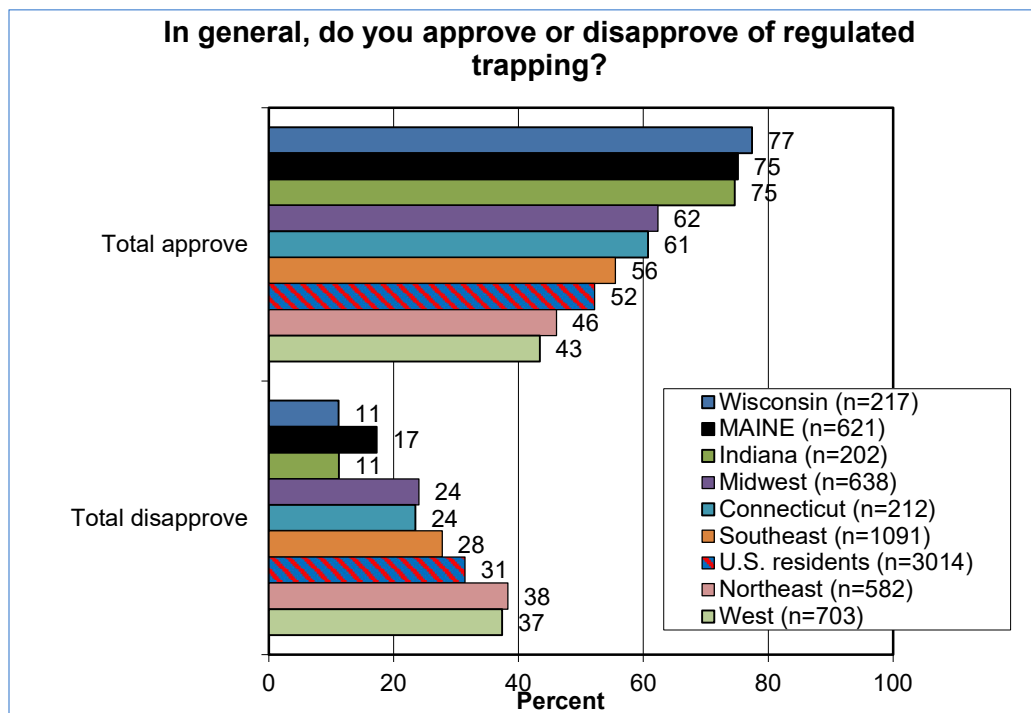


Figure 2.4. Approval and Disapproval of Regulated Trapping in the U.S., Its Regions, and Various States

- **Landowners are not any more approving or disapproving of trapping than the population as a whole, even though they experience more wildlife conflicts than do Maine residents in general.**

From 53% to 61% of large landowners experienced conflicts with wildlife in the 2 years prior to the survey. This is much higher than the rate among residents overall (37% among residents overall). However, rates of approval of trapping among landowners (73% to 81%) are about the same as among residents overall (75%). Disapproval is about the same, as well.

The bottom line is that even though large landowners had a greater rate of wildlife conflict, they are about the same as the general population in approval or disapproval of trapping.

Table 2.2 looks at approval and disapproval among various groups based on attitudinal characteristics.

Table 2.2. Approval and Disapproval of Regulated Trapping by Various Groups Based on Attitudinal Characteristics

Respondent Group (by Attitudinal Characteristic)	Percent Who Approve of Regulated Trapping	Percent Who Disapprove of Regulated Trapping
Aware that trapping is regulated by MDIFW	78	15
Not aware that trapping is regulated by MDIFW	61	29
Rates MDIFW as excellent in managing trapping	88	7
Rates MDIFW as fair or poor in managing trapping	54	40
Agrees that trapping is ok if animal dies quickly	88	5
Disagrees that trapping is ok if animal dies quickly	38	55
Agrees that trapping is ok if animals accidentally caught can be released	85	8
Disagrees that trapping is ok if animals accidentally caught can be released	27	65
Agrees that people are free to trap if they want to	82	10
Disagrees that people are free to trap if they want to	54	43
Agrees that trapping is more humane due to improvements in traps in past 10 years	87	8
Disagrees that trapping is more humane due to improvements in traps in past 10 years	50	43
Agrees that endangered species are used for fur	80	15
Disagrees that endangered species are used for fur	78	15
Agrees that trapping can make species endangered or extinct	68	24
Disagrees that trapping can make species endangered or extinct	82	11
Supports managing furbearers to reduce wildlife diseases	83	10
Opposes managing furbearers to reduce wildlife diseases	28	72
Table is based on responses to the survey question, “In general, do you approve or disapprove of regulated trapping?” Neutral and “don’t know” responses are not included in the table.		

- Disapproval of trapping does not always mean that the person wants to prohibit it entirely. While some people certainly want to prohibit trapping, some Maine residents who disapprove think other people should be allowed to trap.**

Among those who disapprove of trapping (hereinafter in this section referred to as “trapping opponents”), 39% nonetheless agree that people should have the freedom to choose to participate in trapping if they want to do so. This means that not all trapping opponents want trapping outlawed. Interestingly, more people disagree that people should have the freedom to trap than disapprove of trapping itself. This suggests that people may not see trapping as a right.

One of the important takeaways from this study is that not all trapping opponents are alike in their disapproval of trapping. Some people disapprove of trapping in absolute terms, while others lean toward disapproval without feeling strongly. As discussed later in this section, the motivation or purpose of the trapping also matters: for example, trapping to resolve nuisance wildlife situations tends to be much more acceptable than trapping for recreation or for money. Note the following exchange from the Portland general population focus group:

FOCUS GROUP PARTICIPANT #1: That doesn't seem right, recreationally, it just seems like the cruelty is the point of that.

FOCUS GROUP PARTICIPANT #2: It [referring specifically to trapping as recreation] makes my stomach hurt. It really does.

FOCUS GROUP PARTICIPANT #3: It sounds more like sport and not for the right purpose.

Discussion in Portland general population focus group

It is also the case that some people who initially think of themselves as opponents of trapping reconsider when presented with information that explains how and why the trapping is done, as well as the regulations that are in place to ensure the sustainability of the species being trapped.

- **A segment of trapping opponents disapprove of trapping on moralistic grounds: that is, that the killing of any animal is incontrovertibly wrong from a moral standpoint.¹** The qualitative research in particular, including comments from the forum and some of the public meetings and focus groups, suggests that a certain segment of Maine residents are firm in this position—see the following comment from a Portland focus group participant:

No, there is nothing humane about it. There is no humane way to trap an animal. It is absolutely cruel.

Portland general population focus group

- **Two common reasons for opposing trapping are concern over perceived inhumane treatment and concern over accidental or non-target catch; in some cases, this latter concern stems from an assumption that trapping is not properly regulated or is not regulated enough.** Focus group participants in general expressed concern about the humaneness (or lack thereof) of various aspects of trapping. Many also indicated that they worried about pets or non-target animals being accidentally trapped:

¹ Kellert, S.R. 1980. American attitudes toward and knowledge of animals: An update. *International Journal for the Study of Animal Problems*. 1(2): 87-119.

FOCUS GROUP PARTICIPANT #1: I think there's a lot of traps out there that some of these animals get caught in, and they're not intended to catch. I didn't hear a thing, but over the last 20 years it comes out about especially the issue of trying to limit certain types of hunting or trapping, particularly trapping and [certain animals] being endangered. Not only [does trapping cause animals to be] endangered but also, it's inhumane.

FOCUS GROUP PARTICIPANT #2: I would agree with that. I would absolutely agree with that. They run that ad on the snow leopards, [and] they show the one that's limping around with a trap on its leg. That's really inhumane. It's one of these Nature Centers, \$19 a month to save the snow leopards.... But it drives home that there are people out there that are doing this trapping that they're not necessarily there when the animal gets trapped, then it just has to suffer until somebody comes along.

Discussion in Portland general population focus group

The survey found that disapproval of trapping is lower if non-trappers can be assured that accidentally caught animals can be released: 17% of Maine residents disapprove of trapping overall, while 14% disagree that trapping is okay if animals accidentally caught can be released.

Additionally, more than a third of trapping opponents (37%) agree that trapping is okay if animals that are accidentally caught can be released. This reiterates that the accidental trapping of non-target animals is a concern among trapping opponents.

- **Although the trapping community has taken steps to improve traps to reduce animal suffering, which would seem to alleviate the concerns of many regarding trapping, there is some skepticism among the general public that traps have been improved to achieve this goal.**

Improvements in traps made towards the goal of making trapping more humane are not known or believed among trapping opponents. Only 22% of trapping opponents agree with the statement, "Because of improvements in traps, trapping is more humane today than it was 10 years ago." More of them disagree (28%) than agree, and the largest group consists of those who neither agree nor disagree or who do not know (50% of trapping opponents).

- **Related to perceptions of whether trapping can be humane is the motivation for trapping. In particular, some people generally oppose the concept of "recreational trapping" but, at the same time, approve of calling a licensed trapper or animal control professional to address a wildlife conflict. In short, the reason for trapping affects people's approval or disapproval. Ecological and conflict-resolution reasons are often deemed to be legitimate reasons for trapping, while recreation is more often frowned upon.**

For many people, nuisance management is perceived as a necessity, and this perception allows them to overcome their distaste for trapping. Most of the focus groups had at least a few people who indicated that, while they were not completely comfortable with the basic concept of trapping animals, they recognized the problems that beaver and fisher can cause (the latter seems to be widely regarded as a threat to pet cats). It is interesting that most people seem to recognize that human-wildlife conflicts generally do not resolve on their

own—given this recognition of the need for wildlife management, the question becomes how to go about it in the most humane way possible.

- **Another factor that is associated with disapproval of trapping is that some Maine residents think that trapping causes species to become endangered or extinct. Outreach that addresses this issue is important.**

Nearly three quarters of trapping opponents (72%) think that regulated trapping can cause wildlife species to become endangered or extinct. Additionally, 7% gave a neither/don't know response, meaning that 79% of trapping opponents have an incorrect notion about trapping and endangered species. Outreach about trapping in Maine not being a danger to wildlife populations would help alleviate the problem of this misperception.

- **Simply informing residents that trapping is regulated by the Department is important outreach.**

Awareness that the Department regulates trapping is high in Maine, but it is lowest among those who disapprove of trapping: only 69% of this group is aware that the Department regulates trapping, compared to 82% of residents overall. This suggests that outreach to trapping opponents needs to stress that the state regulates its trapping.

When looking specifically at trapping opponents, it was found that the majority of them (58%) answered, “Don't know,” to the question about rating the Department at regulating and managing trapping. This further suggests that simple information about the Department's trapping management program would be important.

- **In the end, trappers, non-trappers, and trapping opponents alike want what is best for Maine's wildlife.**

A number of trappers in the public meetings made an effort to explain to anti-trappers in attendance that trappers do indeed care deeply about wildlife and the sustainability of wildlife populations. Separately, many trapping opponents expressed similar sentiments about themselves. While not an overwhelmingly common occurrence, it is promising nonetheless that certain members of the two sides took the time to express conciliatory statements in the public venues. Despite the contentious nature of the subject matter, a major takeaway from the project is that trappers, non-trappers, trapping opponents, and the Department itself all share as a chief concern the well-being of Maine's wildlife populations.

MOTIVATIONS FOR TRAPPING

- **Previously, the findings showed that the recreational aspects of trapping were not supported by the public. However, among trappers themselves, the recreational aspects are important.**

The top motivation for trapping, among those who do so, is for the recreational aspects (65% of trappers give this reason). This exceeds the percentage who do so for species management (37% give this reason).

DISSATISFACTIONS WITH TRAPPING AND CONSTRAINTS TO PARTICIPATION IN HUNTING AND TRAPPING

- **Most constraints to participation in trapping (as well as hunting) are social. However, addressing issues surrounding lynx exclusion devices would help ameliorate some of the dissatisfactions that trappers have with trapping. (Although this project was concerned more with trapping than hunting, it is worth noting that the lack of Sunday hunting was commonly mentioned as a dissatisfaction with hunting.)**

Most constraints to participation in hunting and trapping are social—lack of time being the most common constraint given by hunters as something that prevented them from hunting as much as they would have liked. No Sunday hunting was a top reason among those that the Department can do something about—13% of hunters said that this was a reason that they did not hunt as much as they would have liked. Among trappers, the most prominent reason for not trapping as much as they would have liked is the required use of lynx exclusion devices.

The question discussed above asked about constraints to trapping participation—things that may have prevented participation. Another question asked about dissatisfactions, regardless of whether that dissatisfaction made for less participation. The top reason among trappers for being dissatisfied with trapping in Maine is the lynx exclusion device. Of those who were not very satisfied, a prominent reason given for not being more satisfied was the use of lynx exclusion devices. Nearly a quarter who got the question named this reason.

Another source of some dissatisfaction among trappers was the decline in prices for furbearer pelts. Interestingly, this issue was much more prominent in the qualitative research than in the survey: the topic was covered in comments in the forum and at some of the public meetings and focus groups, but emerged only as a lower-tier item of dissatisfaction in the survey of trappers. It may be that the majority of trappers have adapted to the “new normal” of lower prices (relative to historical highs), while the issue remains frustrating for a vocal minority. The following exchanges from the Presque Isle and Orono focus groups are instructive in this regard:

MODERATOR: What motivates people to trap?

Used to be good money. But now, it's in my blood.

Presque Isle hunter/trapper focus group

FOCUS GROUP PARTICIPANT #1: The artificial stuff [furs and clothing] is good and getting so much better and better. ... That in itself makes the demand go down, which makes the price go down, which makes people like me go snowmobiling instead of trapping. ... If we could still get the prices we got back in the '70s, then I would be a trapper.

FOCUS GROUP PARTICIPANT #2: Right, you could really supplement your income by running some trap lines.

Discussion in Orono general population focus group

FOCUS GROUP PARTICIPANT #1: The price of pelts is down a fair amount.

FOCUS GROUP PARTICIPANT #2: People don’t wanna wear fur.

Discussion in Orono general population focus group

KNOWLEDGE OF AND OPINIONS ON FURBEARERS AND THEIR POPULATIONS

The previous sections discussed trapping specifically. Another important aspect of this project was to learn about the public’s knowledge of various furbearer species and their opinions on whether to control their populations, as well as how those populations might be controlled.

- **The species for which residents have the highest knowledge levels are skunk, raccoon, and coyote. On the other hand, the lowest knowledge levels are regarding marten and muskrat.**

Table 2.3, which summarizes Maine residents’ self-reported knowledge levels of each of the ten furbearer species explored in the research, is ranked by the “great deal and moderate amount combined” values:

Table 2.3. How much would you say you know about [species]? (General population)

	A great deal	A moderate amount	A great deal and moderate amount combined	A little	Nothing at all	Don’t know
Skunk	15	37	52	34	10	3
Raccoon	16	34	50	39	11	0
Coyote	14	33	47	36	16	1
Fox	9	33	42	40	16	1
Beaver	4	29	33	44	19	4
Fisher	2	24	27	38	34	2
Otter	3	21	25	55	18	2
Bobcat	3	21	24	49	26	1
Muskrat	2	12	14	40	42	4
Marten	1	8	9	44	42	4

Green shading indicates the highest knowledge levels among all the species, showing all within 5 percentage points of the top species. Red shading indicates the lowest knowledge levels among all the species, showing all within 5 percentage points of the lowest species. Any apparent discrepancies in the sums are caused by rounding in the table; all sums are calculated on unrounded numbers.

North/East Region residents are the most knowledgeable, in general, showing the highest self-professed knowledge of the regions for seven of the ten species considered (Table 2.4). On the other hand, South Region and Central Region residents have the lowest levels of self-professed knowledge, in general—each of these regions has the lowest knowledge level for four species.

Table 2.4. How much would you say you know about [species]? (By Region) (General population)

	A great deal			A moderate amount			A great deal and moderate amount combined			A little			Nothing at all		
	NE	C	S	NE	C	S	NE	C	S	NE	C	S	NE	C	S
Skunk	14	11	20	38	41	33	53	51	54	31	38	33	15	8	10
Raccoon	27	16	12	31	35	34	58	51	46	40	34	43	3	15	11
Coyote	25	19	4	34	31	35	59	50	39	32	31	43	9	19	16
Fox	12	10	6	50	26	34	61	36	40	28	43	43	10	18	16
Beaver	10	6	1	17	18	42	27	23	43	41	51	40	25	21	15
Fisher	3	2	2	16	24	27	20	27	29	47	38	34	34	36	32
Otter	15	1	2	31	27	13	46	29	15	30	57	61	25	14	20
Bobcat	7	1	3	23	19	23	30	20	27	47	47	52	23	31	22
Muskrat	0	1	3	23	11	11	23	12	14	37	45	35	38	41	44
Marten	2	2	0	14	7	5	15	9	6	40	50	40	43	35	50

Green shading indicates the highest knowledge level within the regions; when the regions are within 5 percentage points of the highest, they are also shaded. Red shading indicates the lowest knowledge level within the regions; when the regions are within 5 percentage points of the lowest, they are also shaded. Regarding skunk, no region is markedly higher than the others. Any apparent discrepancies in the sums are caused by rounding in the table; all sums are calculated on unrounded numbers. “Don’t know” not shown to improve table legibility.

One aspect of furbearer management is the public’s perceptions of what is meant by the term, “furbearers.” Several of the focus groups began with an exercise in which participants were asked to write down as many furbearer species as they could think of; the results of this exercise from the Portland and Orono groups, shown in Table 2.5, suggest that many residents perceive any furred animal to constitute a furbearer species:

Table 2.5. Furbearer Species Named by Portland and Orono Focus Group Participants

Portland Participant	Species Named
1	Deer, gerbil, bear, panda, coyote, wolf, opossum, badger, mouse, rat, moose, elk, polar bear, weasel, fisher, camel, horse, cow, ox, rabbit, squirrel, skunk, ermine, mink, seal pup, cougar, mountain lion, lion, cheetah, leopard, lynx
2	Fox, mink, bear, beaver, puma, squirrel, porcupine, raccoon
3	Deer, fox, moose, raccoon, coyote, bear
4	Bear, deer, fox, rabbit, mink, raccoon, wolf, mountain lion, beaver
5	Brown bear, black bear, polar bear, fur seal, seal lion, beaver, deer, moose, lynx, wolf, coyote, mouse, rat, squirrel, chipmunk, elk, boar, fox
6	Bear, fox, coyote, deer, lynx
7	Bear, deer, moose, fox, raccoon, skunk, opossum, coyote, wolf, bobcat, mountain lion, lynx, mouse, rat, porcupine, mole, groundhog, beaver
8	Fox, rabbit, wildcat, bear, deer, moose, beaver
9	[blank]
10	Bear, wolf, mink, rabbit, deer
Orono Participant	Species Named
1	Pine marten, fisher, ermine, bear, coyote, beaver
2	Bear, raccoon, skunk, coyote, fisher, moose, deer, bobcat
3	Bear, raccoon, squirrel, fox, moose, coyote, fisher, deer
4	Bear, beaver, deer, moose, marten, skunk, raccoon
5	Fox, lynx, bobcat, bear, beaver, raccoon, marten, weasel, coyote, fisher
6	Coyote, mink, beaver, otter, muskrat, raccoon, weasel, pine marten
7	Muskrat, raccoon, bear, mink, weasel, moose, deer, bobcat, skunk, beaver, ermine, lynx
8	Lynx, bear, rodents, fisher
9	Raccoon, beaver, koala, cats, squirrel

- **Regarding furbearer population levels, more residents think that the population is too high than too low for four species: coyote, skunk, raccoon, and fisher. On the other hand, more residents think that the population is too low than too high for six species: otter, bobcat, fox, marten, muskrat, and beaver.**

Table 2.6, which summarizes Maine residents’ opinions on furbearer population levels, is ranked by the “too high” column.

Table 2.6. In your opinion, is the [species] population in the area where you live too high, about right, or too low? Or are there no [species] in the area where you live? (General population)

	Too high	About right	Too low	None in area	Don't know
Coyote	27	30	2	22	19
Skunk	17	55	12	9	8
Raccoon	14	53	9	12	13
Fisher	11	22	7	40	20
Fox	10	47	16	17	9
Beaver	4	31	6	37	21
Bobcat	4	16	14	38	27
Marten	2	15	6	42	35
Muskrat	2	21	5	33	40
Otter	0	19	15	47	20

Red shading indicates that “too high” exceeds “too low”; green shading indicates that “too low” exceeds “too high.”

As shown in Table 2.7, coyote has more residents saying the population is too high than too low across all three regions. On the other hand, for bobcat, fox, marten, and otter, more residents say the populations are too low than too high across all three regions.

Table 2.7. In your opinion, is the [species] population in the area where you live too high, about right, or too low? Or are there no [species] in the area where you live? (By Region) (General population)

	Too high			About right			Too low			None in area			Don't know		
	NE	C	S	NE	C	S	NE	C	S	NE	C	S	NE	C	S
Coyote	27	30	24	38	31	26	6	1	0	10	16	31	19	22	18
Skunk	20	24	9	52	54	56	15	7	14	10	9	9	3	6	12
Raccoon	31	16	7	55	42	60	5	7	11	5	15	12	4	19	10
Fisher	6	13	12	21	25	19	15	3	6	25	47	40	32	12	23
Fox	10	10	9	68	45	41	12	19	16	4	13	28	6	13	6
Beaver	11	3	2	32	35	28	6	6	7	19	37	43	32	19	21
Bobcat	0	2	9	17	23	7	27	6	18	42	47	27	14	21	39
Marten	0	3	1	24	21	4	8	6	7	33	52	36	34	19	52
Muskrat	3	3	0	37	20	18	5	3	7	28	36	32	28	38	44
Otter	0	0	0	43	19	11	14	13	16	23	51	49	20	17	23

Red shading indicates that “too high” exceeds “too low” in that region; green shading indicates that “too low” exceeds “too high” in that region.

- **The most support of trapping to help manage populations is for coyote, skunk, raccoon, and fisher. The most opposition is for trapping bobcat and fox. Note, however, that support exceeds opposition for all species, and a majority of Maine residents support trapping all species except bobcat.**

Table 2.8 summarizes the statewide results regarding support and opposition to trapping as a method to help manage each furbearer species; it is ranked by overall support. Table 2.9 shows the regional results on these questions, ranked in the same order.

Table 2.8. Do you support or oppose regulated trapping as a method to help manage the [species] populations in Maine? (General population)

	Strongly support	Overall support	Neither	Strongly oppose	Overall oppose	Don't know
Coyote	40	71	1	16	20	8
Skunk	36	69	5	14	21	5
Raccoon	28	68	2	17	24	6
Fisher	28	66	8	10	18	8
Beaver	40	63	5	14	20	12
Otter	21	62	3	16	26	8
Muskrat	39	62	1	15	20	17
Fox	26	58	4	18	34	3
Marten	22	58	8	12	17	17
Bobcat	21	48	4	24	32	15

Green shading indicates the highest support among all the species, showing all within 5 percentage points of the top species. Red shading indicates the highest opposition among all the species, showing all within 5 percentage points of the top species.

Table 2.9. Do you support or oppose regulated trapping as a method to help manage the [species] populations in Maine? (By Region) (General population)

	Strongly support			Overall support			Neither			Strongly oppose			Overall oppose		
	NE	C	S	NE	C	S	NE	C	S	NE	C	S	NE	C	S
Coyote	38	34	46	57	76	74	1	0	1	22	17	12	26	24	14
Skunk	33	44	31	58	84	60	12	4	3	15	7	19	30	8	29
Raccoon	43	21	29	71	79	57	2	2	3	13	12	22	27	16	31
Fisher	28	33	24	64	87	48	9	4	12	11	4	15	16	5	29
Beaver	32	45	38	45	59	71	26	1	3	9	11	17	17	23	18
Otter	28	23	18	55	64	63	0	6	2	24	15	14	38	25	23
Muskrat	45	35	41	69	57	64	3	0	2	14	16	14	18	23	18
Fox	33	19	30	65	47	67	2	6	4	17	17	21	31	44	26
Marten	28	24	18	66	60	52	3	14	3	15	13	10	18	17	18
Bobcat	12	17	31	28	42	64	12	0	5	33	29	15	37	40	21

Green shading indicates the highest support among all the species within that region, showing all within 5 percentage points of the top species. Red shading indicates the highest opposition among all the species within that region, showing all within 5 percentage points of the top species. “Don’t know” not shown to improve table legibility.

- **Coyotes are the least favorably viewed species, based on the percentage of residents saying that they are a nuisance or are dangerous. This is followed by skunks, fishers, and raccoons. On the other hand, foxes are the most favorably viewed, followed by beaver.**

Table 2.10 is ranked by the values for “enjoy seeing and having them around home.”

Table 2.11 shows the regional results and is ranked the same way.

Table 2.10. Which of the following statements best describes your feelings about [species] around your home or in your area? (General population)

	None around	Enjoy seeing and having them around home	Enjoy seeing and having them but worry about problems	Regard them as a nuisance	Regard them as dangerous	Nuisance and dangerous combined	No feeling	Don't know
Fox	21	32	21	2	5	7	16	3
Beaver	41	25	14	4	0	4	13	3
Skunk	18	18	16	24	2	26	19	3
Raccoon	22	16	14	17	3	20	26	2
Muskrat	41	16	4	3	0	3	29	7
Otter	57	14	4	1	0	1	19	6
Bobcat	50	10	7	1	5	6	23	4
Marten	50	10	3	5	1	5	20	11
Coyote	24	8	14	22	15	38	12	3
Fisher	40	8	5	8	17	25	16	5

Dark green shading indicates the highest in the “enjoy seeing and having them around home” response among all the species. Green shading indicates that the “enjoy seeing and having them around home” response exceeds nuisance/dangerous combined. Dark red shading indicates the highest in the combined nuisance/dangerous among all the species. Red shading indicates that the nuisance/dangerous combined response exceeds the “enjoy seeing and having them around home” response.

Table 2.11. Which of the following statements best describes your feelings about [species] around your home or in your area? (By Region) (General population)

	Enjoy seeing and having them around home			Enjoy seeing and having them but worry about problems			Regard them as a nuisance			Regard them as dangerous			Nuisance and dangerous combined		
	NE	C	S	NE	C	S	NE	C	S	NE	C	S	NE	C	S
Fox	37	30	33	25	22	19	9	0	1	8	3	5	16	3	6
Beaver	30	17	29	10	19	12	9	4	2	0	1	0	9	5	2
Skunk	8	9	28	18	22	11	25	27	20	2	5	1	27	32	21
Raccoon	14	5	27	22	11	14	34	22	7	4	4	2	38	25	9
Muskrat	10	12	21	4	7	1	2	6	1	0	0	0	2	6	1
Otter	26	18	7	11	5	0	1	2	0	0	0	0	1	2	0
Bobcat	13	9	11	8	7	6	0	1	1	2	3	9	2	4	10
Marten	10	7	13	3	5	0	4	8	2	2	0	1	5	8	3
Coyote	6	12	5	30	14	8	25	23	21	12	15	17	37	38	38
Fisher	18	4	7	8	4	6	6	8	10	12	26	11	17	34	20

Dark green shading indicates the highest in the “enjoy seeing and having them around home” response among all the species in that region. Green shading indicates that the “enjoy seeing and having them around home” response exceeds nuisance/dangerous combined in each region. Dark red shading indicates the highest in the combined nuisance/dangerous among all the species in that region. Red shading indicates that the nuisance/dangerous combined response exceeds the “enjoy seeing and having them around home” response in each region. Some responses not shown to improve table legibility.

- **There may be a need for outreach that explains that certain furbearer species play an important role in the ecosystem.**

Questions asked residents to indicate how beneficial they think certain species are. At the bottom were coyote, fisher, raccoon, and skunk. While they have an important place in the ecosystem, it may be that the public is unaware of these species' role in the ecosystem. Additionally, some of the public feels that there are too many of these species, which may lower the rating they give to its importance. The benefits of having a species will decline when the species' populations start to exceed carrying capacity—for instance, to use a non-

furbearer as an example, when deer overpopulate, they become harmful rather than beneficial to the ecosystem because of their over-browsing. The overall finding here suggests that outreach about the importance of managing these species would need to include information on their roles in the ecosystem as well.

- **Landowners have a slightly different perception of the species that cause them concern, compared to the general population. Landowners show high concern about beaver, coyote, raccoon, and skunk. Note, however, that landowners like having beaver around if damage can be minimized.**

Among landowners, the species whose populations they most commonly think are too high are beaver, coyote, raccoon, and skunk. This compares to coyote, fisher, raccoon, and skunk as being the species whose populations are commonly thought to be too high among the general population. Beaver is on the list for landowners, likely because of flooding problems on land as well as damage to trees, while fisher is not. Recall that fisher are seen as lethal threats to pets, which is perhaps why they are on the list of low acceptance among the general public.

Interestingly, beaver is seen by landowners as being a population that is too high, but it is one of the species that has the highest percentages of landowners who enjoy seeing them and having them around. The four species that have the highest percentage of landowners who think that they are a nuisance or dangerous are coyote, fisher, raccoon, and skunk.

- **Coyote management in Maine is a highly salient issue. The research suggests that concern over coyote populations in Maine is not limited to hunters and trappers, although these groups tended to be the most vocal in their concern on the topic. Of particular concern to hunters is the predation of deer by coyotes. Many focus group participants talked of often seeing coyote tracks alongside deer tracks, as well as other signs of predation on deer by coyotes.**

The large majority of hunters (70%) and trappers (72%) think that coyote populations are too high. No other species is near that. Similarly, coyote has more general population residents saying the population is too high than too low across all three regions. These findings make clear that coyote management is a prominent issue among Maine residents.

Coyote management was also a recurring theme in the forum comments from non-hunters and non-trappers, and in the focus group discussions with general population residents. The following comments are representative of the sentiments of many focus group participants and forum commenters:

I have a negative attitude toward coyotes because of the...deer. Whether you go snowmobiling or anything in the wintertime, you're likely to come across a shredded up deer in the middle of the trail because they can't get away the way the coyotes can. So that's really my motivator initially to start coyote hunting to protect deer.

Presque Isle hunter/trapper focus group

I'd like to get rid of coyotes.

Presque Isle hunter/trapper focus group

I have three packs of coyotes in my backyard. And they've come close. The scariest thing was there was over a dozen of them, practically surrounding us [in our tent as we were camping in the backyard].

Portland general population focus group

Back when we used to really control them [coyotes], we could use snares.

Orono general population focus group

Coyote management was also covered extensively in many of the comments made by citizens at the public meetings in Presque Isle, Portland, and Augusta. The recurring topic related to coyote management during these meetings was the effect of coyote on Maine's deer populations, particularly in northern Maine. The perception that Maine's coyote populations are increasing appears to be fairly widespread.

- **Finally regarding furbearer species is the finding that the public knows very little about muskrat and marten, so some informational outreach would be useful to the public about these species.**

The highest knowledge levels among Maine residents are for coyote, raccoon, and skunk, while the lowest levels are for muskrat and marten. Information about furbearers needs to be basic about these latter species, as people do not know much about them. Knowledge levels are also low for bobcat, otter, and fisher, particularly among South Region residents.

SUPPORT FOR AND OPPOSITION TO FURBEARER MANAGEMENT

- **The overwhelming majority of Maine residents (81% of them) support furbearer management to reduce diseases.**

Overall support for furbearer management to reduce wildlife diseases that could affect people, pets, and other wildlife is robust: 81% of Maine residents support it, and only 10% oppose. Opposition is highest in the South Region, but only at 13%, not extremely higher than the other regions, which are at 9% (North/East Region) and 7% (Central Region).

In looking at demographic and attitudinal groups, the least likely to support furbearer management are, not surprisingly, those who disapprove of regulated trapping. Nonetheless, 48% of those who disapprove of trapping are still supportive of managing furbearer populations to control disease.

- **There is a segment of the population that is adamant that wildlife can regulate itself and needs no management from humans—for these residents, furbearers are no exception.**

As explained above, the quantitative data indicates that one in ten Maine residents oppose furbearer management to reduce wildlife diseases that could affect people, pets, and other wildlife. A more general sentiment (i.e., about wildlife in general, not specific to furbearers) was expressed by multiple participants across the focus groups; it was not uncommon for these individuals to base their opposition to wildlife management on the premise that humans have encroached on wildlife habitat. These findings suggest that some Maine residents

simply flatly oppose the idea of human beings managing wildlife. Note the following representative comments from two of the focus groups:

I am a huge proponent of not managing species, and actually truly protecting them. And coyotes is number one on my list, and we are treating them so unethically with any sort of management.

Portland animal rights focus group

Suppose there were no humans in Maine, these wildlife populations would be regulated by nature whether it be disease, starvation, or predators. Us being thrown in the mix is really throwing this off, because we are putting houses where predators used to be, and it's like we've created this problem, how are we going to fix this? Why is it the animals' fault that we felt like showing up here?

Portland general population focus group

CONFLICTS WITH WILDLIFE

- **Human-wildlife conflicts are common, with more than a third of Maine residents having experienced conflicts with wildlife in the two years previous to the survey. (Note that the question did not limit conflicts to the furbearer species, and deer is often mentioned as causing conflicts with residents.)**

More than a third of Maine residents say that they experienced conflicts with wildlife in the past two years. In particular, residents of the North/East Region have a high percentage who have experienced conflicts. The furbearer species being the most involved in human-wildlife conflict are raccoon, skunk, fox, and coyote (Figure 2.5).

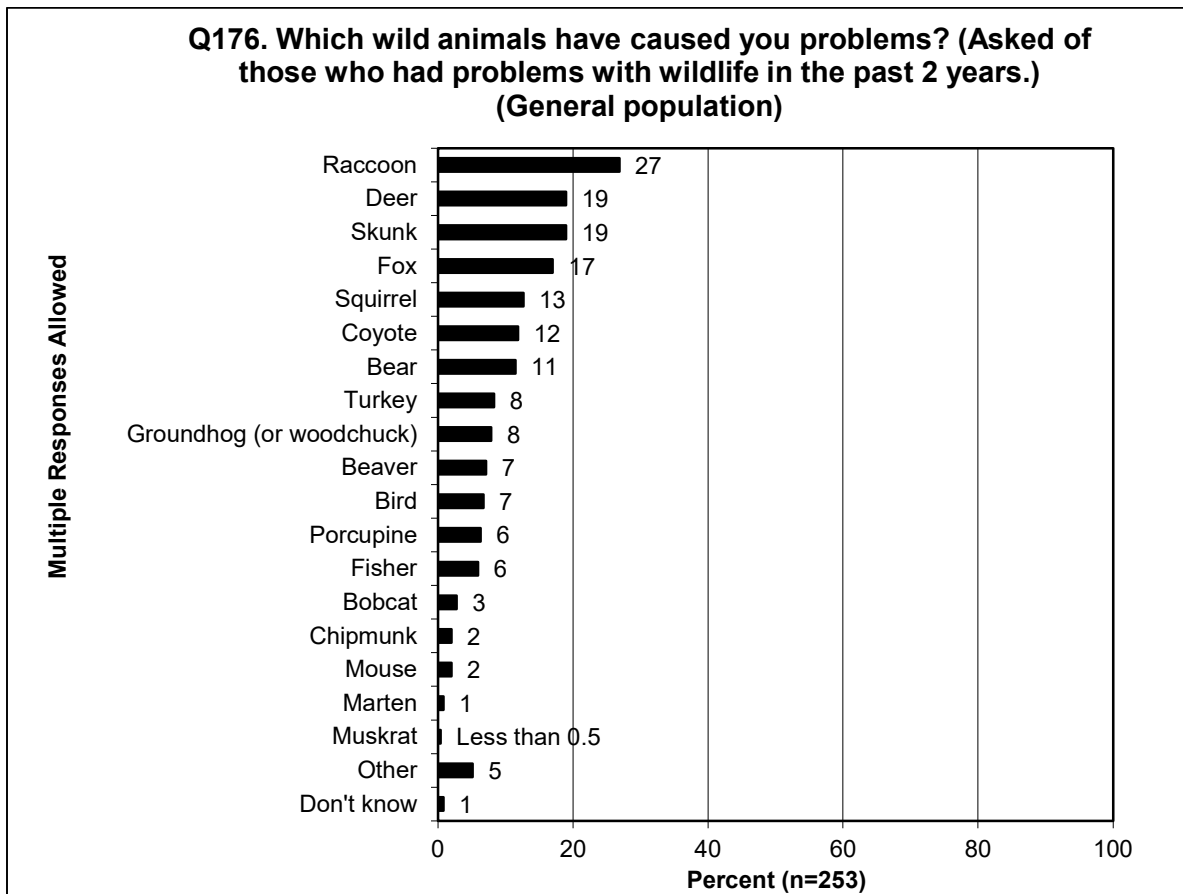


Figure 2.5. Types of Wild Animals or Birds That Caused Problems (General Population)

- **The majority of landowners (53% to 61%) experienced conflicts with wildlife in the previous two years.**

When asked if they had experienced any problems with wildlife in the past two years, 53% of North/East Region landowners, 61% of Central Region landowners, and 60% of South Region landowners indicated in the affirmative.

While deer is the most common species with which landowners have conflicts, five species of furbearers are commonly involved in conflict: beaver, coyote, fox, raccoon, and skunk. In this open-ended question of landowners who had conflicts, note that fisher is low on the list, suggesting that actual problems with fisher are less common than the perceived antipathy towards them.

Among landowners, damage to crops/gardens is the top-named problem with wildlife. Furbearers are rarely among the species that do such damage; deer are more often responsible for this type of damage. It is worth noting that landowners are much more likely than residents overall to kill the animal at the source of the conflict.

- **Although some Maine residents oppose “recreational trapping,” they may still call a licensed trapper or animal control professional, who may use trapping to address the conflict.**

In particular, the focus groups had people who were unenthusiastic about trapping but who indicated that they saw the need for controlling some wildlife that cause problems, and that trapping is one of the ways to do so.

OPINIONS ON THE DEPARTMENT

- **Ratings of the Department’s management of trapping are more positive than negative. However, many residents do not know what rating to give—they simply do not know much about the Department or its trapping management. Outreach that explains that the Department manages trapping and explains some of how it is done would fill this information void.**

A large percentage of Maine residents answered, “Don’t know,” regarding rating the Department in its management of trapping (38% did so). Among those who gave a rating, they were mostly positive: 56% rated the agency excellent or good, while only 6% rated the Department fair or poor. Note that the “Don’t know” response was particularly common among Central and South Region residents. (Interestingly, Maine has a lower percentage of “don’t know” responses than other states that Responsive Management has studied—see the last section in this report. This leaves a greater percentage to give an actual rating, which is partly why Maine’s ratings are higher than the other states’ ratings.)

While landowners give positive ratings to the Department’s regulation and management of trapping at a much greater rate than negative ratings, a large portion of them (from 25% to 29%) do not know what rating to give.

- **The majority of trappers (60%) give a rating of excellent or good to the Department’s regulation and management of trapping.**

However, 26% of trappers give a fair rating, while another 12% give a poor rating. While no follow-up question was asked regarding reasons for these ratings, previous findings about lynx exclusion devices would indicate that some of the dissatisfaction could be attributed to these devices. Additionally, comments from trappers in the online forum, public meetings, and focus groups suggest that concern about opposition to trapping and frustration with certain trapping regulations (such as restrictions on the use of snares or drags) could also figure into the lower ratings.

INFORMATION NEEDS OF THE GENERAL PUBLIC, HUNTERS, TRAPPERS, AND LANDOWNERS

- **All of the research suggested that Maine residents in general do not know much about trapping.**

The general population focus groups suggested that basic impressions of trapping among non-trappers are sometimes based on the most egregious examples of trapping mishaps (unintended catch of pets or non-target species) or inhumane situations (animals being left to suffer in traps for long periods of time). In many cases, the biological reasons for trapping do

not appear to be well understood. Also, many people appear to automatically assume the generic term “trapping” refers to lethal traps and not live traps.

In the survey, the most common answer to the question asking Maine residents to rate the Department’s management of trapping in Maine, using an excellent-good-fair-poor scale, was “Don’t know” (note that this lack of information was reiterated by the focus group research). This suggests that a fairly large percentage of state residents may need information to assure them that the Department is properly managing trapping. This is particularly true of Central and South Region residents.

Even landowners have information gaps regarding trapping. While landowners give positive ratings of the Department’s regulation and management of trapping at a much greater rate than negative ratings, a large portion of them (from 25% to 29%) do not know what rating to give. This suggests that this group could benefit from information explaining the role of the Department in regulating and managing trapping in Maine.

- **The research suggests that the more people know about trapping, the more likely they are to approve of it.**

Recall that 78% of those who are aware that trapping is regulated by the Department approve of trapping, compared to just 61% of those who are *not* aware; and that 81% of Maine non-trappers who know or ever knew a trapper approve of trapping, compared to only 67% of non-trappers who *never* knew a trapper (see Tables 2.1 and 2.2 presented earlier). The differences in approval rates among these groups are statistically significant ($p < 0.01$).

The qualitative data also support the idea that the more people know about trapping, the more likely they are to approve of it. Based on the researchers’ observations of the focus group discussions, many people may be willing to reconsider their initial opinion of trapping if they are presented with compelling information that they did not know before: that trapping regulations have the sustainability of the species as the top priority, that trapping is based on science, that trapping helps rare species such as the piping plover, that trapping promotes healthy populations, that traps have been refined over the years through best management practices to make them more humane, and that the traps used for trapping are also used by biologists to study wildlife.

In the Portland and Orono focus groups of general population residents, these pieces of information resulted in several people reconsidering their initial opposition to trapping. In fact, at least a few people in the Portland group did not seem to realize that trapping is regulated at all—some of them were surprised to learn about basic regulations such as that trapping is allowed only for certain species, that trappers have to check traps every 24 hours, that only certain types of traps are allowed, and so on. The following discussion from the Orono focus group speaks to this point:

MODERATOR: Does your opinion of trapping change if you know that trapping is sanctioned by the government?

FOCUS GROUP PARTICIPANT #1: These people who work for the government do way more research and are way more knowledgeable [than the general population]—it’s literally their job to know about this stuff—so if they’re saying it’s okay, you should probably just trust their judgement.

FOCUS GROUP PARTICIPANT #2: If they [agency personnel] say it’s okay.

FOCUS GROUP PARTICIPANT #3: Trapping based on science...sustainability.

FOCUS GROUP PARTICIPANT #4: I agree with that; it’s what they do.

Discussion in Orono general population focus group

This suggests the importance of the Department filling in some of the knowledge gaps about the extent to which trapping is regulated.

In terms of knowing trappers themselves, one of the interesting findings from the survey is that trappers and non-trappers have similar rates of participation in various outdoor activities (though trappers tend to be slightly more avid in several of the activities). This suggests that, in terms of their general outdoor interests, trappers look fairly similar to the “average” Maine resident (Figure 2.6):

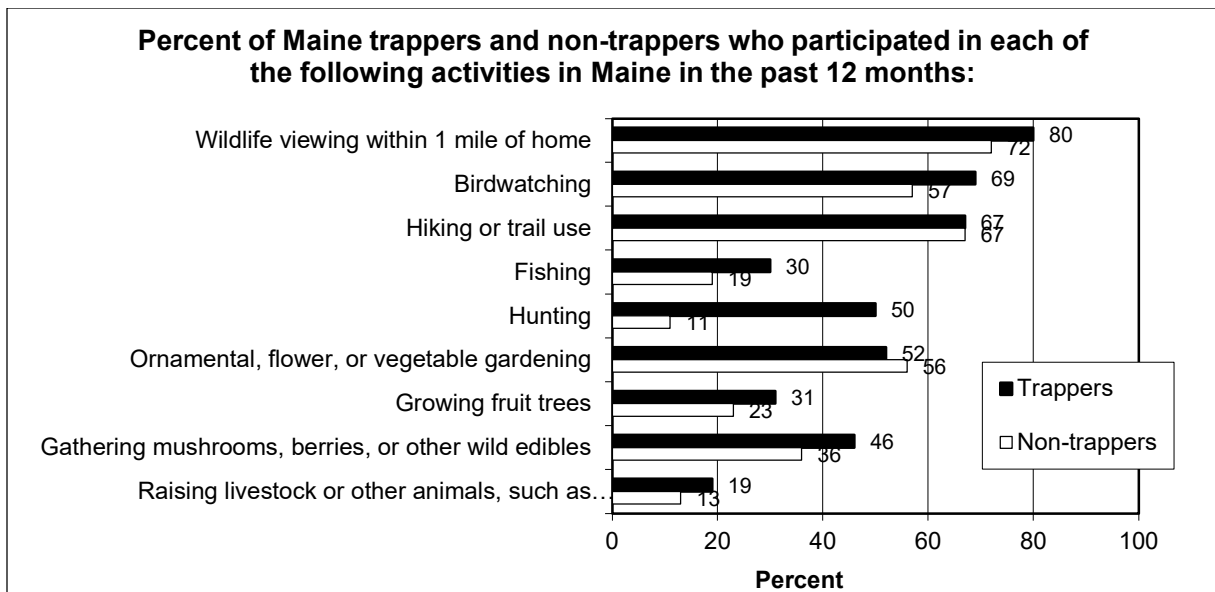


Figure 2.6. Participation in Outdoor Activities Among Maine Trappers and Non-Trappers

- In general, everyone seems to want more information.**
 The research indicates that many trappers feel that trapping and trappers themselves are misunderstood; they support the idea of public education and outreach to correct misperceptions about trapping in Maine. There was also some interest among members of the general population in education and outreach on trapping: a number of people in the focus groups and public meetings, upon receiving some basic information about how and why

trapping is done, suggested that the Department should be getting more information about trapping out to the public. The exchanges below from the focus groups are instructive:

FOCUS GROUP PARTICIPANT #1: I knew some of that. I didn't know you needed education to get a license.

FOCUS GROUP PARTICIPANT #2: I did, and it's [the trapping education course] pretty in depth.

FOCUS GROUP PARTICIPANT #3: I didn't [know that an educational course was required to get a license], and I'm happy to hear it. I think it's good, because they're monitoring. If you have to prove your bag limit and tag the pelts, they know who's out there and how much you're getting.

Discussion in Portland general population focus group

I feel like those statistics [the percentage of survey respondents who approved or disapproved of trapping, which was told to focus group participants] can be affected by education. I didn't know what it [the term "trapping"] meant. Even after discussing this, I'm still confused about what trapping is or what the point is.

Portland animal rights focus group

Taxes...and fees [for hunting and trapping]: I didn't realize they were going to conservation efforts.

Orono general population focus group

- **The perceived (incorrect) link between regulated trapping in Maine and the endangerment or extinction of species needs to be broken. This is an important subject for outreach to the general public, landowners, and even hunters and trappers.**

A sizeable portion of Maine residents—52%—do not know that endangered species are *not* used to make fur clothing: only 48% disagreed with the statement, "Endangered species...are frequently used to make fur clothing." Meanwhile, 26% agreed and another 26% either did not know or gave a neutral response. Likewise, two thirds of Maine residents did *not* know that regulated trapping in Maine does not cause species to become endangered or extinct: only 33% disagreed with the statement, "Even though trapping is regulated by the State, regulated trapping can still cause wildlife species to become endangered or extinct." On this question, 50% agreed, and another 17% answered neutrally or did not know.

Even among hunters and trappers, there is a substantial percentage who agree that endangered species are used to make fur clothing (12% of hunters and 10% of trappers). Therefore, even these groups need to know that this is not the case in the United States. The same is true regarding whether trapping causes species to become endangered, with 20% of hunters and 15% of trappers agreeing that trapping does this.

Although landowners tend to be more knowledgeable about some aspects of trapping than are residents in general, there is still a need for outreach. In the statement that "trapping can still cause wildlife species to become endangered or extinct," a higher percentage of landowners (from 40% to 47%) disagree (the correct answer) than residents overall (only 33% disagree). Nonetheless, there are still large percentages of landowners who need to be

informed that this is not true—from 53% to 60% of landowners have an incorrect perception of this.

A large percentage of trapping opponents (72% of them) agree that regulated trapping can cause wildlife species to become endangered or extinct (and another 7% give a neither/don't know response). This is a sizable portion with an incorrect notion about trapping and endangered species, and their disapproval of trapping would appear to be reinforced by this incorrect notion. Outreach about trapping in Maine not endangering wildlife populations is essential to address this misperception.

- **Many Maine residents either are not aware or do not believe that improvements have been made to traps over the past decades.**

That improvements in traps have made trapping more humane than it was decades ago is not fully believed by residents, as 30% responded with “don't know” on the question about this, and another 12% did not agree or disagree. The “don't know” responses are particularly high among South Region residents, at 35% among this group.

Similarly, some trapping opponents do not know about such improvements, and others are skeptical about them. More trapping opponents disagree (28%) than agree (22%) that, because of improvements in traps, trapping is more humane today than it was in the past. Furthermore, about half of trapping opponents neither agree nor disagree or do not know (50% of trapping opponents).

ANIMAL WELFARE AND FURBEARER MANAGEMENT

This section does not come directly from the research for this project, but it is relevant to understanding how Maine residents relate to trapping and the use of animals by humans.

The use of animals, including the management of wildlife through trapping, exists on a continuum of acceptability. At one extreme end is the animal rights mindset: the belief that animals have rights like humans and should not be used by humans in any way. At the other extreme end is the dominionistic mindset: the belief that animals may be used by humans regardless of the animal's welfare or rights. The middle of the continuum is defined by the animal welfare mindset, and this is where the vast majority of Americans reside: the belief that animals may be used by humans as long as the animals do not experience undue pain and suffering. (These data come from previous Responsive Management research.)

If they are not wildly different than most Americans (and there is no evidence in the research for this project that suggests that they are), most Maine residents consent to the use of animals, provided the animals do not experience undue pain and suffering. (From the research conducted for this furbearer management project, it is known that the majority of Maine residents approve of regulated trapping.)

Trapping, like any other consumptive use of wildlife carried out in a responsible and ethical manner, must be done in the context of animal welfare. This means that trapping must be done as humanely as possible, with care taken to minimize any pain and suffering on the part of the animal. It means that trappers themselves must behave in a way that is consistent with the animal

welfare philosophy, both when trapping and when acting as proponents of trapping. And it means that the Department must think of trapping in this context when setting regulations and communicating with the public about trapping. (To be clear, there is nothing in the research that suggests that trappers or the Department behave in a way that is inconsistent with animal welfare.)

The alternative is for regulated trapping in Maine to be viewed as a dominionistic activity, that is, an activity done without regard for the pain and suffering of the wildlife. Responsive Management's research suggests that only a small minority of Americans (and, it follows, Mainers) identify with the dominionistic mindset. As a result, activities that are widely viewed as dominionistic have a tendency to push people in the direction of the opposite extreme, which would serve to increase opposition to regulated trapping and other activities that actually reside in the realm of animal welfare.

Awareness of the continuum in Figure 2.7 (which shows behaviors and practices associated with each of the three mindsets) should inform how people think about, participate in, and communicate about trapping in Maine.

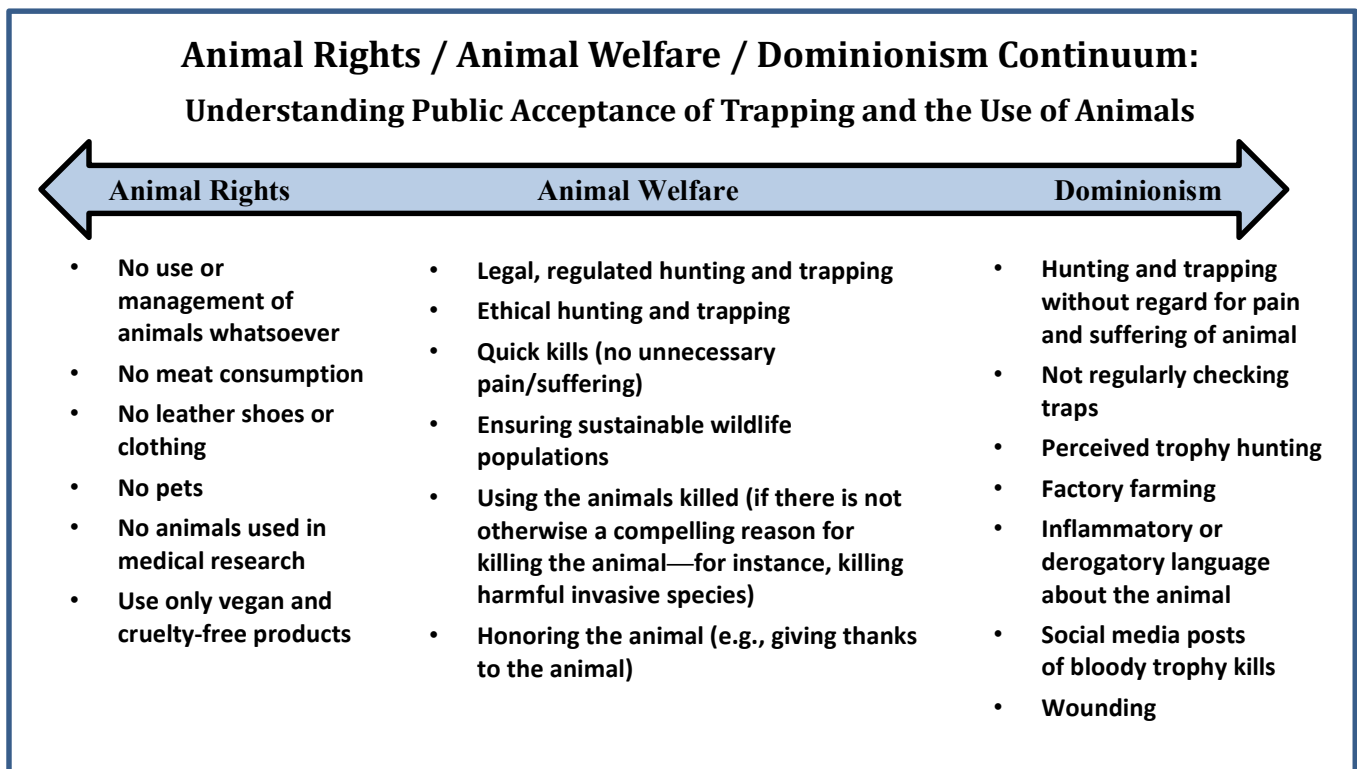


Figure 2.7. Animal Rights-Animal Welfare-Dominionism Continuum

COMPARISON OF APPROVAL OR DISAPPROVAL OF TRAPPING IN THE U.S., REGIONALLY, AND IN THREE STATES, AND RATINGS OF STATE AGENCIES

Two past Responsive Management studies asked about approval or disapproval of regulated trapping:

NSSF Report: Americans’ Attitudes Toward Hunting, Fishing, Sport Shooting, and Trapping. 2019. Conducted for the National Shooting Sports Foundation.

Awareness of and Attitudes Toward Trapping Issues in Connecticut, Indiana, and Wisconsin. 2016. Conducted for the Association of Fish and Wildlife Agencies.

Both of the surveys for these reports included this question:

In general, do you approve or disapprove of regulated trapping?

The results are shown in Table 2.12, and they are compared to the results from Maine.

Table 2.12. Approval of Trapping in the U.S. and U.S. Regions, Three States, and Maine

Question: In general, do you approve or disapprove of regulated trapping?	NSSF Report					AFWA Report			This Report
	U.S. residents (n=3014)	Northeast (n=582)	Southeast (n=1091)	Midwest (n=638)	West (n=703)	Connecticut (n=212)	Indiana (n=202)	Wisconsin (n=217)	MAINE (n=621)
Strongly approve	29	22	30	38	25	26	41	37	44
Moderately approve	23	24	25	25	18	34	33	41	31
Total approve	52	46	56	62	43	61	75	77	75
Neither approve nor disapprove	11	11	12	8	13	11	11	7	7
Moderately disapprove	10	11	9	8	14	9	4	3	5
Strongly disapprove	21	27	19	16	24	15	7	9	13
Total disapprove	31	38	28	24	37	24	11	11	17
Don't know	5	5	5	5	6	5	3	4	1

Because the table has so many columns, it would be difficult to digest in a graph without first combining responses. Figure 2.8 shows the total who approve and the total who disapprove (the neutral and “don’t know” responses are removed). Note that Figure 2.8 shows the groups ranked by total approval; the U.S. as a whole is shown by the red and blue patterned bar, and Maine is shown by the black bar. Wisconsin, Maine, and Indiana have the highest approval, in a tier markedly above the rest.

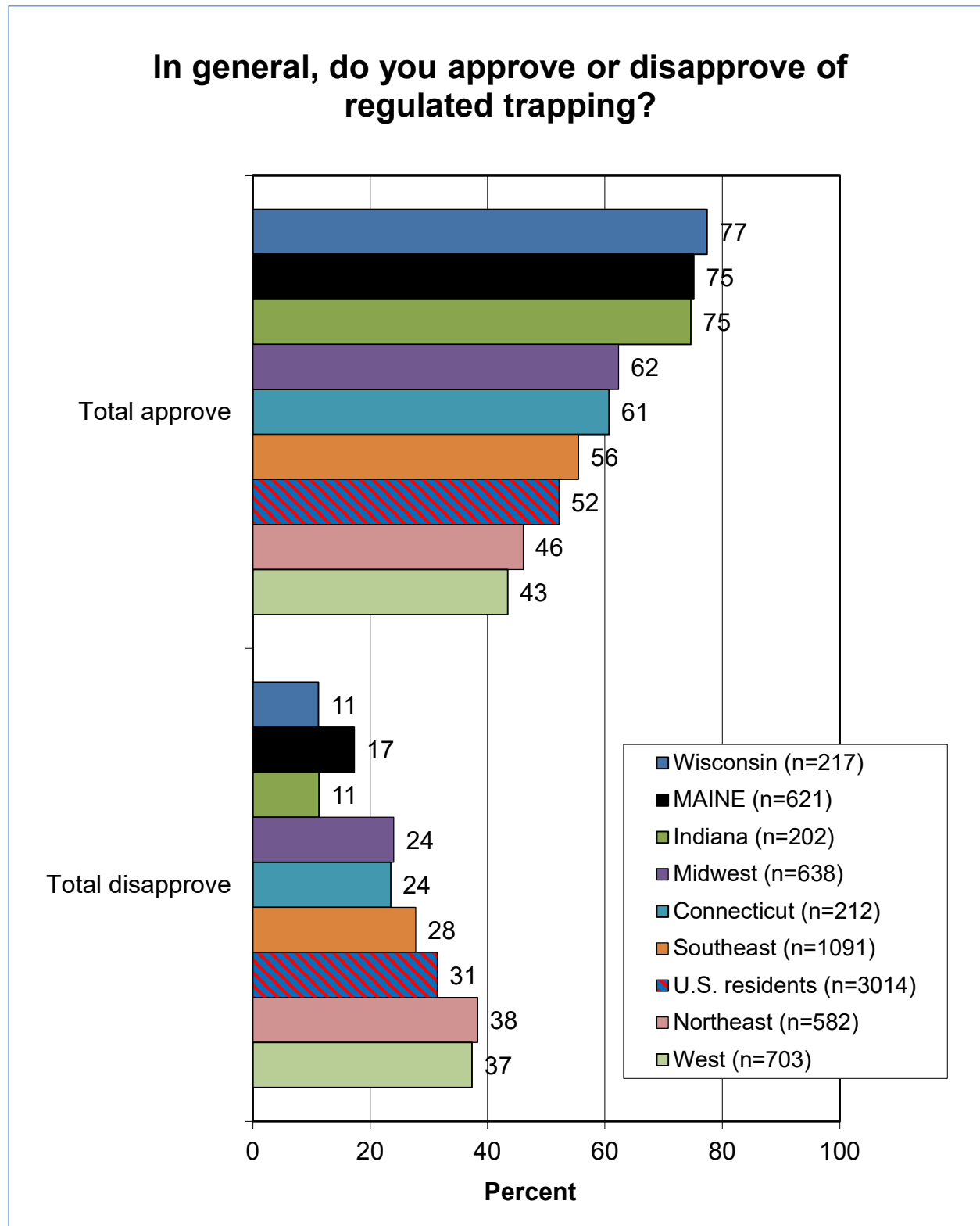


Figure 2.8. Approval and Disapproval of Trapping Among Various Groups

Figure 2.9 looks at another similar question to only the three-state study (the NSSF study did not include this question) regarding the freedom to trap. The comparison suggests that Maine residents (71% agree) have markedly lower agreement to this statement than Indiana and Wisconsin residents (at 82% and 79% agreement). But Maine is well above Connecticut in agreement with the statement.

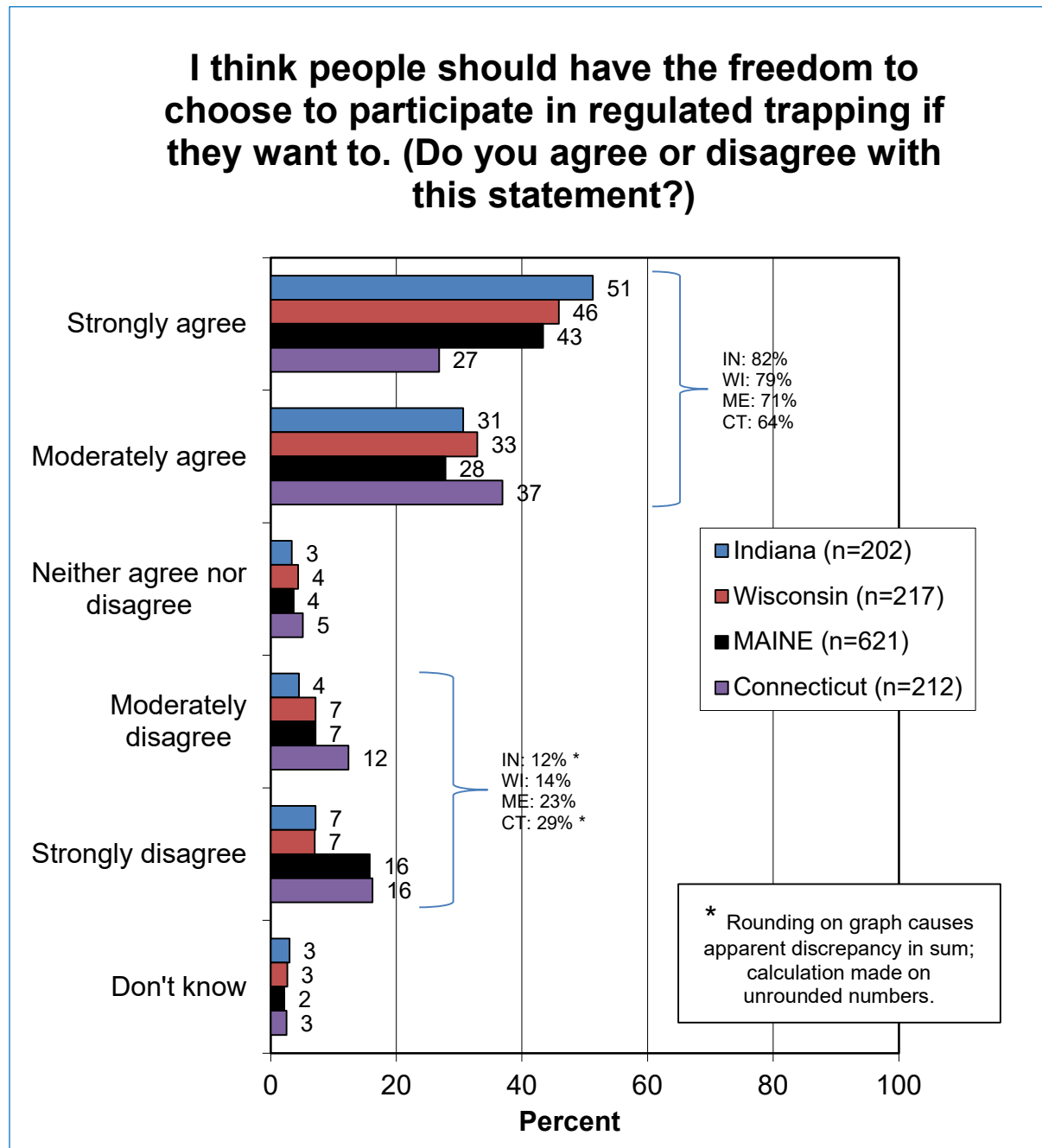


Figure 2.9. Agreement or Disagreement Regarding the Freedom to Trap Among Three States Compared to Maine

Another question that was the same between surveys asked respondents to rate their state wildlife agency at regulating and managing trapping (Figure 2.10). Maine residents had a much lower rate of saying that they did not know, which gave them a higher percentage giving an actual rating. Maine had a markedly higher percentage, relative to the other states, giving a rating in the top half of the scale (excellent or good): 56% in Maine versus no more than 39% in the other three states. Maine is shown with the black bar.

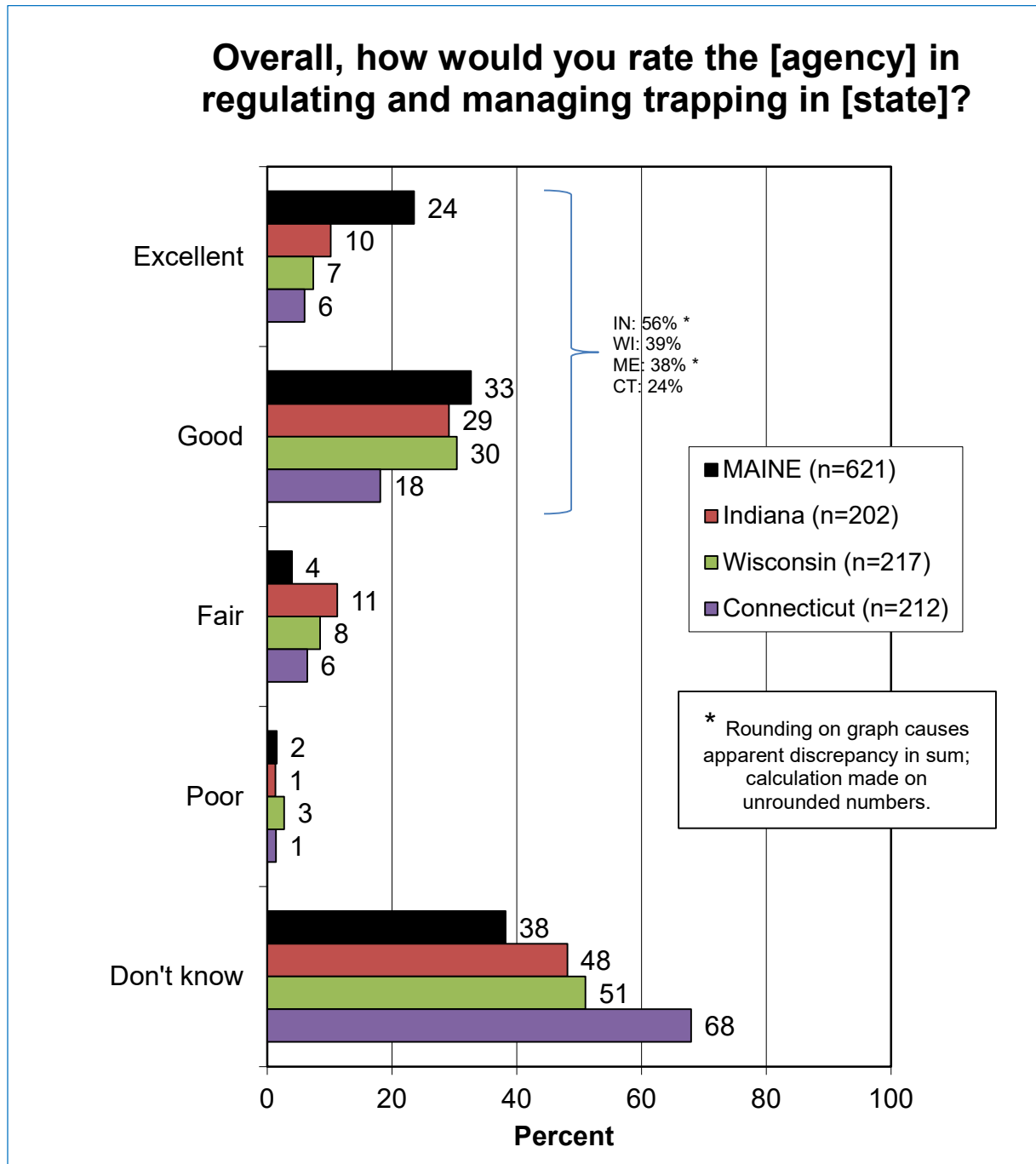


Figure 2.10. State Agency Ratings

ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized survey research firm specializing in natural resource and outdoor recreation issues. Our mission is to help natural resource and outdoor recreation agencies, businesses, and organizations better understand and work with their constituents, customers, and the public. Focusing only on natural resource and outdoor recreation issues, Responsive Management has conducted telephone, mail, and online surveys, as well as multi-modal surveys, on-site intercepts, focus groups, public meetings, personal interviews, needs assessments, program evaluations, marketing and communication plans, and other forms of human dimensions research measuring how people relate to the natural world for more than 30 years. Utilizing our in-house, full-service survey facilities with 75 professional interviewers, we have conducted studies in all 50 states and 15 countries worldwide, totaling more than 1,000 human dimensions projects *only* on natural resource and outdoor recreation issues.

Responsive Management has conducted research for every state fish and wildlife agency and every federal natural resource agency, including the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Forest Service, Bureau of Land Management, U.S. Coast Guard, and the National Marine Fisheries Service. Additionally, we have also provided research for all the major conservation NGOs including the Archery Trade Association, the American Sportfishing Association, the Association of Fish and Wildlife Agencies, Dallas Safari Club, Ducks Unlimited, Environmental Defense Fund, the Izaak Walton League of America, the National Rifle Association, the National Shooting Sports Foundation, the National Wildlife Federation, the Recreational Boating and Fishing Foundation, the Rocky Mountain Elk Foundation, Safari Club International, the Sierra Club, Trout Unlimited, and the Wildlife Management Institute.

Other nonprofit and NGO clients include the American Museum of Natural History, the BoatUS Foundation, the National Association of Conservation Law Enforcement Chiefs, the National Association of State Boating Law Administrators, and the Ocean Conservancy. As well, Responsive Management conducts market research and product testing for numerous outdoor recreation manufacturers and industry leaders, such as Winchester Ammunition, Vista Outdoor (whose brands include Federal Premium, CamelBak, Bushnell, Primos, and more), Trijicon, Yamaha, and others. Responsive Management also provides data collection for the nation's top universities, including Auburn University, Clemson University, Colorado State University, Duke University, George Mason University, Michigan State University, Mississippi State University, North Carolina State University, Oregon State University, Penn State University, Rutgers University, Stanford University, Texas Tech, University of California-Davis, University of Florida, University of Montana, University of New Hampshire, University of Southern California, Virginia Tech, West Virginia University, Yale University, and many more.

Our research has been upheld in U.S. Courts, used in peer-reviewed journals, and presented at major wildlife and natural resource conferences around the world. Responsive Management's research has also been featured in many of the nation's top media, including *Newsweek*, *The Wall Street Journal*, *The New York Times*, CNN, National Public Radio, and on the front pages of *The Washington Post* and *USA Today*.

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