

# Summary of Research



**Montana Fish,  
Wildlife & Parks**

## Selected Results from Four Separate Surveys of Resident Montanans Regarding Montana's Wolf Hunt

HD Unit Research Summary No. 33

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**Abstract:** *Montana Fish, Wildlife & Parks (FWP) recently conducted four separate surveys of resident Montanans regarding Montana's wolf hunt. Survey findings revealed that tolerance with wolves being on the Montana landscape was quite low. At the same time, there was considerable tolerance for the concept of wolf hunting in the state. Of note, tolerance for wolf hunting was not just limited to those survey respondents who reported they were intolerant of wolves in general. Other survey findings revealed that public satisfaction with wolf management in the state significantly improved as a result of the 2011 Montana wolf hunt. While there was little agreement among survey respondents regarding whether or not the regulations for the 2011 Montana wolf hunt were satisfactory, results suggest support for a more aggressive approach to wolf harvest regulations considering the fact that wolves are elusive and difficult to hunt even under the best of circumstances. These findings support the FWP Commission's recent decision to implement a more liberal wolf harvest package for the 2012 season.*

## BACKGROUND INFORMATION

Beginning in 2010, Montana Fish, Wildlife and Parks (FWP) took a comprehensive and formal approach to build upon previous experience in setting and implementing wolf harvest seasons. FWP staff and Commissioners used a facilitated, structured decision-making process to frame the season-setting decision, including defining the decision problem and fundamental objectives for setting the season (Keeney 1992, Hammond et al. 1999, Lyons et al. 2008). The fundamental objectives defined during this process have been instrumental in application of wolf harvest as a tool to manage wolf and ungulate populations, as well as livestock depredation in Montana. Yet, the objectives defined in this process justifiably included a broader focus than wildlife population and conflict management. Objectives related to the human dimensions<sup>1</sup> aspect of wildlife management were also defined, including:

- **Maintaining positive and effective working relationships with livestock producers, hunters, and other stakeholders;**
- **Increasing broad public acceptance of harvest and hunter opportunity as part of wolf conservation; and,**
- **Enhancing open and effective communication to better inform decisions.**

This past spring 2012, FWP conducted four separate surveys of resident Montanans regarding Montana's wolf hunt in an effort to help measure these and other human dimension related objectives. Prior to conducting these surveys, the only

### SURVEYS CONDUCTED BY FWP

**General Montana Household Survey.** Surveys were mailed out to a randomly selected sample of N=1,500 Montana households. This sample was purchased from Survey Sampling, Inc. (a well recognized international business that specializes in survey sampling solutions) and was deemed representative of households across the state as a whole. A 37 percent response rate was achieved for this survey, and a diverse range of resident Montanans (including private landowners, hunters, and non-hunters) completed and returned this survey. In addition to this survey, three additional surveys were conducted by FWP that focused on the following specific subsets of Montanans:

- **Resident Private Landowners.** Surveys were mailed out to a randomly selected sample of N=1,500 resident Montana landowners who own at least 160 acres in the state. This sample was pulled from the Montana State Cadastral Database and was deemed representative of resident landowners (with 160 acres or more) across the state as a whole. A 49 percent response rate was achieved for this survey.
- **Resident Wolf License Holders.** Surveys were mailed out to a randomly selected sample of N=1,000 resident wolf license holders from the 2011 hunting season. This sample was pulled from FWP's automated license system database and was deemed representative of resident wolf license holders from across the state as a whole. A 56 percent response rate was achieved for this survey.
- **Resident Deer/Elk License Holders.** Surveys were mailed out to a randomly selected sample of N=1,500 resident deer/elk license holders from the 2011 hunting season. This sample was pulled from FWP's automated license system database and was deemed representative of resident deer/elk license holders from across the state as a whole. A 45 percent response rate was achieved for this survey.

<sup>1</sup> Human dimensions is the people aspect of natural resource management (including wildlife management).

existing measures relative to these objectives were anecdotal, or obtained through voluntary submissions of comments during public comment periods used by the FWP Commission as part its formal process to authorize a wolf hunt in Montana. The four surveys described herein were designed to provide baseline information directly referenced in formal wolf season objectives. In the future, these surveys can be replicated in order to provide insight as to whether or not the Montana’s wolf hunt is meeting a broad array of human dimensions related objectives.

This research summary provides selected results from each of these four surveys. Key questions addressed in each survey included:

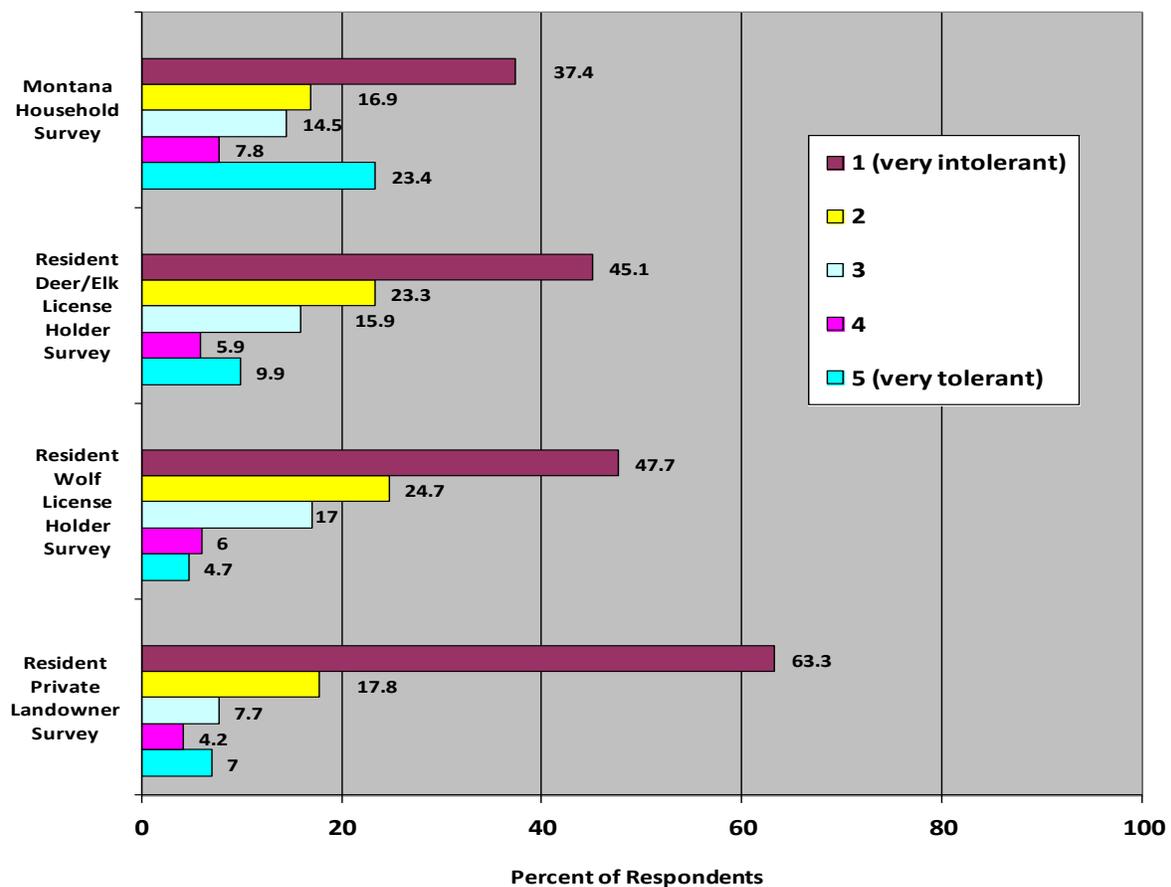
- Overall tolerance with wolves being on the Montana landscape, both before and after the Montana wolf hunt.
- Participation in the formal process the FWP Commission used to authorize the 2011 Montana wolf hunting season.
- Satisfaction with the 2011 Montana wolf hunting regulations.
- Tolerance with the concept of wolf hunting in Montana before and after the 2011 Montana wolf hunt.
- Satisfaction with wolf management in Montana before and after the 2011 Montana wolf hunt.

- Reasons for purchasing (or not purchasing) a Montana wolf hunting license, including likelihood of purchasing a license in the future.
- Level of support for wolf hunting license fees being used to kill wolves that kill livestock in Montana.
- Level of support for wolf hunting license fees being used to kill wolves outside of the wolf hunting season in places where deer or elk numbers are below management objectives.

## OVERALL TOLERANCE OF WOLVES IN MONTANA

In general, reported tolerance with wolves being on the Montana landscape was quite low for each of the four surveys conducted (see Figure 1 below). This question was asked in the context of tolerance before and after the 2011 Montana wolf hunt. Reported tolerance amongst survey respondents for each of the four surveys was the same for both before and after the 2011 Montana wolf hunt. That is, tolerance did NOT significantly change following the 2011 Montana wolf hunt. Overall, the highest level of tolerance, and the most diversity in tolerance, was seen in the Montana household survey.

**Figure 1.** Response to...“On a scale from 1 (very intolerant) to 5 (very tolerant), how tolerant are you with wolves being on the Montana landscape?”  
 Note: The general Montana household survey included a diverse array of Montanans (including private landowners, hunters, and non-hunters). The resident deer/elk license holder, resident wolf license holder, and resident private landowner surveys focused on specific subsets of Montanans.



## For the 2011 Montana wolf hunt, the FWP Commission approved the following wolf hunting regulations:

- A license was required to legally hunt a wolf.
- The timing of the wolf hunting season overlapped with the deer and elk hunting seasons in Montana with some hunting allowed after the deer and elk seasons. The wolf hunting season was closed during the breeding season (generally late winter through early spring) and the denning season (generally after April 1).
- Licensed wolf hunters were only allowed to harvest one wolf.
- Licensed wolf hunters were NOT allowed to harvest a wolf by means of trapping, use electronic calls, or bait wolves.
- For hunter safety reasons, all licensed wolf hunters were required to wear a minimum of 400 square inches of hunter orange (fluorescent) material above the waist, visible at all times—during times when wolf hunting season overlapped with the general rifle season for deer and elk.
- All licensed wolf hunters were required to report their harvest of a wolf within 12 hours of the time of harvest by calling a toll free telephone number. Licensed wolf hunters were not required to possess any part of a harvested wolf (the entire carcass could be left in the field if desired). Those licensed wolf hunters who legally harvested a wolf and choose to retain the skull and hide were required to personally present the skull and hide (with evidence of sex naturally attached) to a designated FWP employee within ten days after harvest.
- Quotas were used to limit the number of wolves that could be harvested by licensed hunters.

### PARTICIPATION IN THE FORMAL SEASON SETTING PROCESS FOR THE 2011 MONTANA WOLF HUNT

A relatively small percentage of respondents from all four surveys reported they actively participated in the formal process the FWP Commission used to authorize the 2011 Montana wolf hunt. Active participation could have included providing comments via email, the Internet, letter, or in-person at Commission meetings.

	% of Respondents Who Reported They <u>Actively Participated</u>
Montana Household Survey	<b>5 percent</b>
Resident Deer/Elk License Holder Survey	<b>9 percent</b>
Resident Wolf License Holder Survey	<b>17 percent</b>
Resident Private Landowner Survey	<b>5 percent</b>

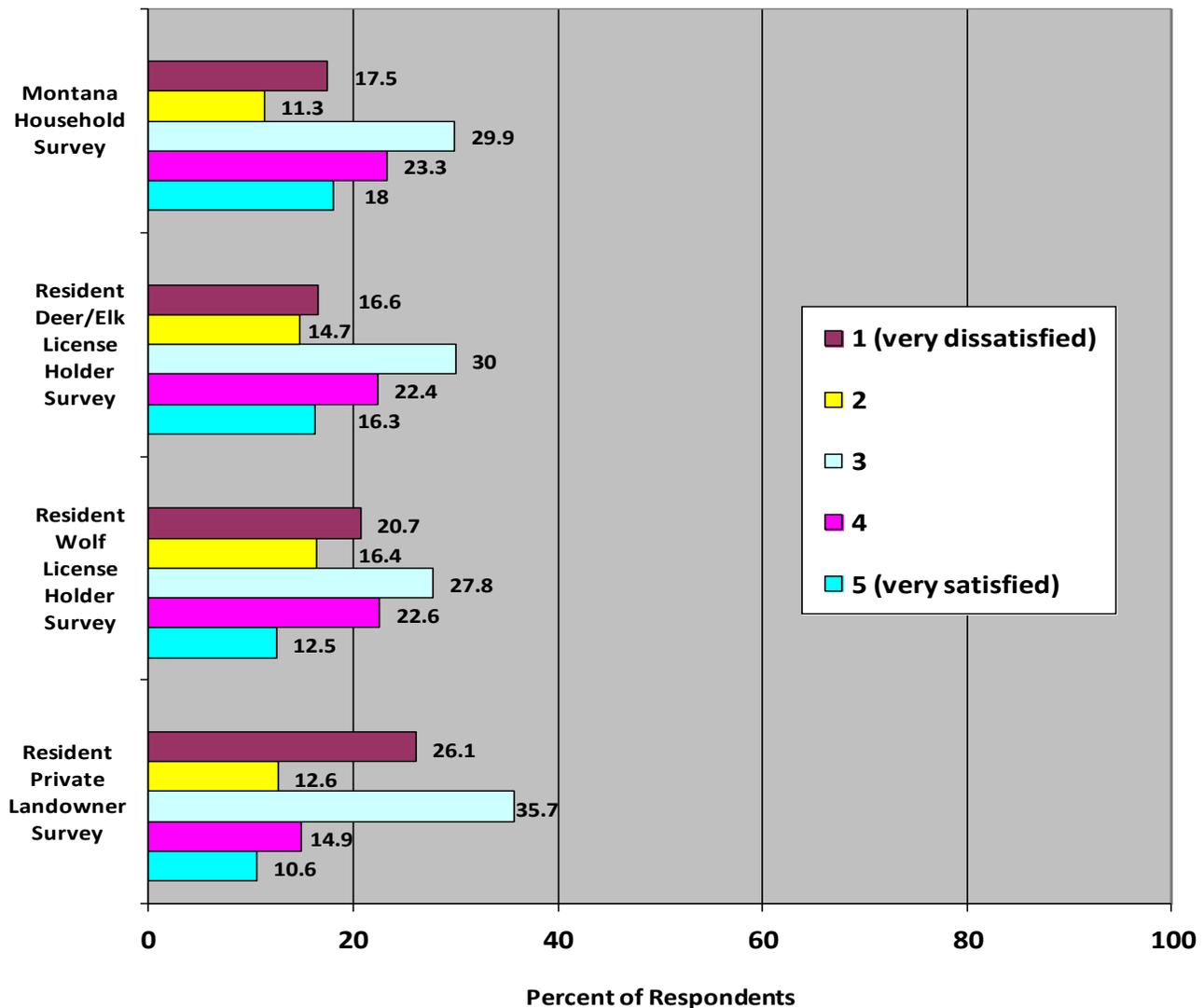


### SATISFACTION WITH THE 2011 WOLF HUNTING REGULATIONS

Figure 2 on the following page provides results from each survey regarding satisfaction with the 2011 Montana wolf hunting regulations. Of note, all survey participants were provided information regarding details of the regulations for the 2011 hunt. In general, there was little agreement among respondents for each of the four surveys regarding whether or not the regulations were satisfactory. Across each of the four surveys, the most frequently received comments regarding the 2011 wolf hunting regulations included:

- The bag limit for hunting wolves should be more than one wolf.
- There is a need for a better means of harvesting wolves (e.g., allow trapping, electronic calls, and baiting). Wolves are elusive and difficult to hunt.
- There is a need to consider a longer hunting season for wolves in Montana.
- Higher quotas are needed in areas of the state that have a high population of wolves and in areas where wolves are presenting the most problems.
- There should be no limitations on hunting wolves. Treat wolves like coyotes. Wolves should be classified as a predator.
- The regulations are good. Fine tune the regulation as needed.
- The 12 hour harvest report time is not reasonable.
- Hunters should not be allowed to leave a harvested wolf carcass in the field.

**Figure 2.** Response to...“On a scale from 1 (very dissatisfied) to 5 (very satisfied), how satisfied were you with the 2011 Montana wolf hunting regulations. *Note: The general Montana household survey included a diverse array of Montanans (including private landowners, hunters, and non-hunters). The resident deer/elk license holder, resident wolf license holder, and resident private landowner surveys focused on specific subsets of Montanans.*



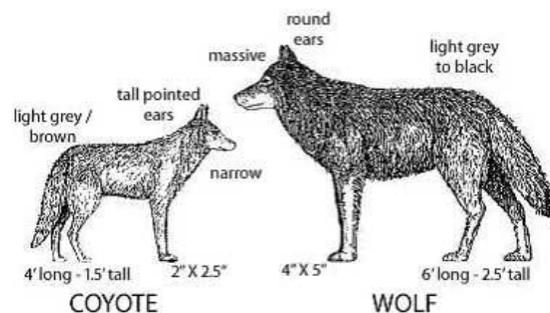
### TOLERANCE WITH THE CONCEPT OF WOLF HUNTING IN MONTANA

Survey participants were asked how tolerant they were with the concept of wolf hunting in Montana before and after the 2011 wolf hunt. Findings from each of the four surveys revealed nearly identical levels of tolerance both before and after the 2011 Montana wolf hunt, indicating the wolf hunt did not significantly change respondents’ tolerance with the concept of wolf hunting in general.

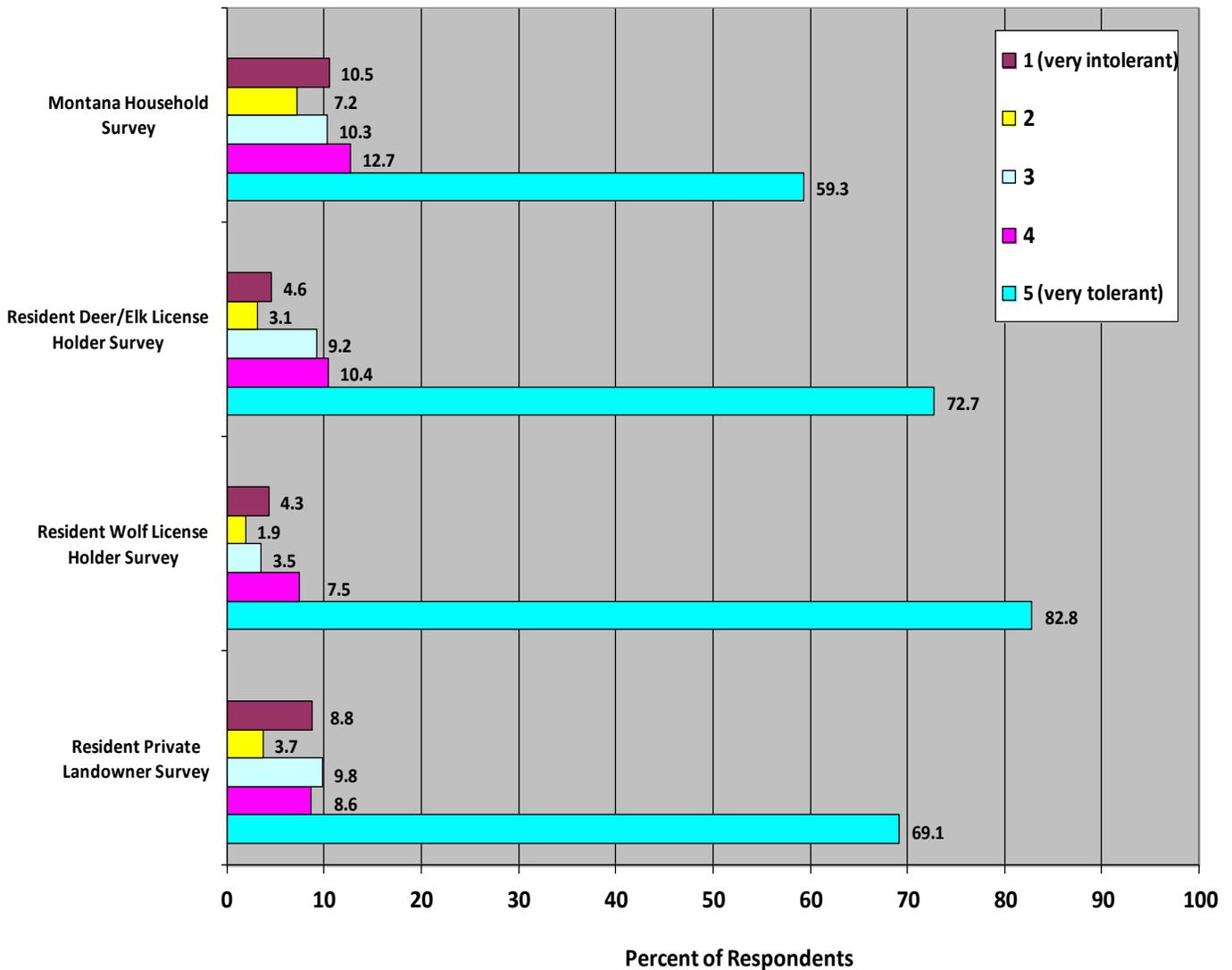
Figure 3 on the next page provides survey findings for each of the four surveys with respect to how tolerant respondents reported they were with the concept of wolf hunting AFTER the 2011 Montana wolf hunt. In general, tolerance levels across all four surveys were quite high.

Of note, tolerance with the concept of wolf hunting was not limited to those respondents who reported they are intolerant of

wolves in general. For example, 53 percent of the respondents from the household survey who reported they are tolerant or very tolerant of wolves being on the Montana landscape also reported they are tolerant or very tolerant of the concept of wolf hunting in the state.



**Figure 3.** Response to...“On a scale from 1 (very intolerant) to 5 (very tolerant), how tolerant are you with the concept of wolf hunting in Montana AFTER the 2011 Montana wolf hunt?” Note: The general Montana household survey included a diverse array of Montanans (including private landowners, hunters, and non-hunters). The resident deer/elk license holder, resident wolf license holder, and resident private landowner surveys focused on specific subsets of Montanans.



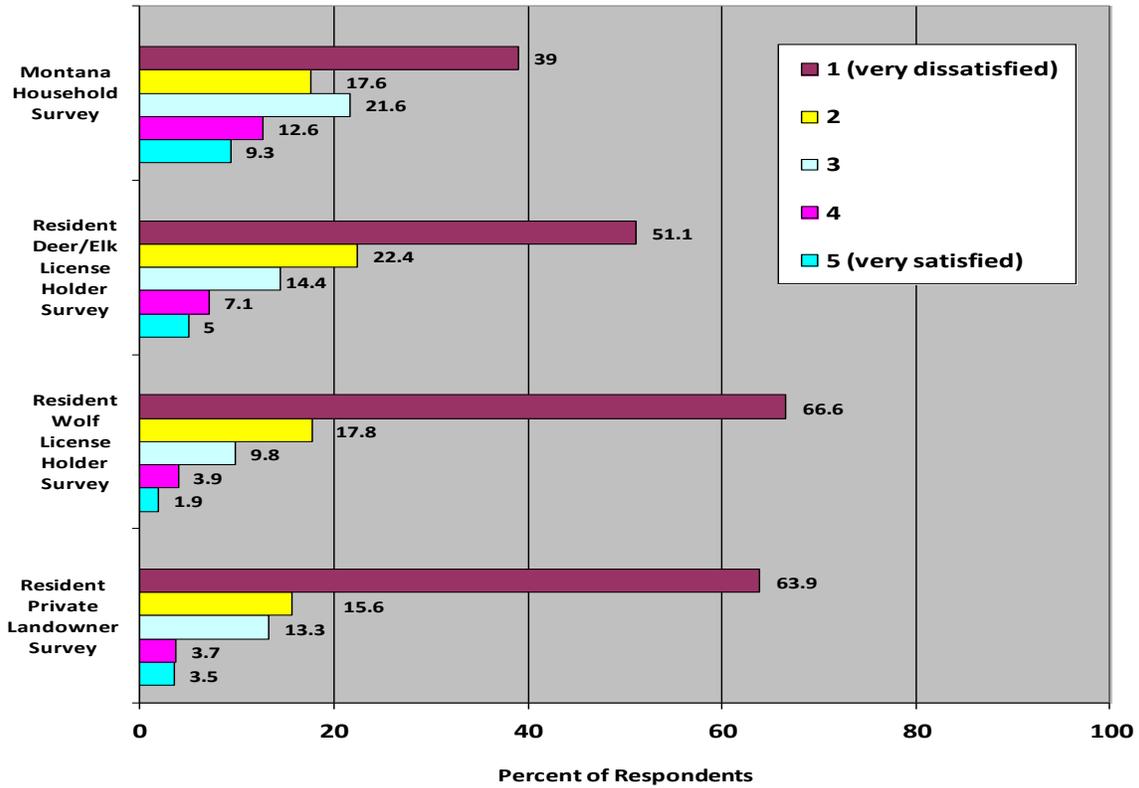
### SATISFACTION WITH WOLF MANAGEMENT IN MONTANA BEFORE AND AFTER THE 2011 MONTANA WOLF HUNT

Survey participants were asked how satisfied they were with wolf management in Montana both before and after the 2011 wolf hunt (for survey results see Figures 4-5 on the next page). Findings from each of the four surveys revealed increased satisfaction after the 2011 Montana wolf hunt, indicating the wolf hunt significantly improved respondents’ reported satisfaction with wolf management in the state.

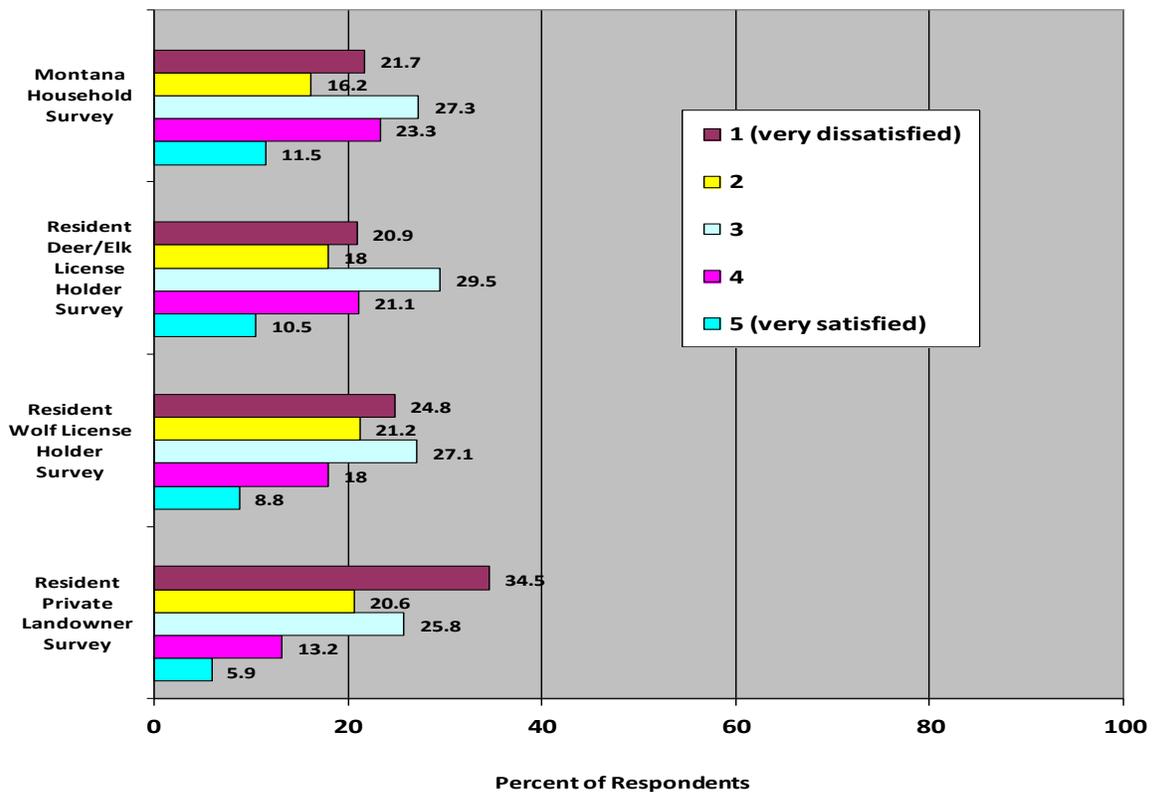
**Management related information.** FWP obtained full authority to manage wolves in Montana upon the federal delisting of the Rocky Mountain gray wolf in May 2011. FWP is committed to using its authority to responsibly manage Montana’s wolf population while addressing conflicts with livestock and other wildlife populations. FWP helps produce a Montana Wolf

*Weekly Report that summarizes information about wolves and their management in Montana on a weekly basis. Highlighted activities are monitoring, wolf-livestock interactions, outreach and education, research, law enforcement, and other miscellaneous program information. FWP also helps produce an annual report that presents information regarding the status, distribution, and management of wolves in Montana. Reports are a cooperative effort by FWP, USDA Wildlife Services, Glacier National Park, Yellowstone National Park, Blackfeet Nation, and The Confederated Salish and Kootenai Tribes. For more information, go to FWP’s website at [fwp.mt.gov](http://fwp.mt.gov) (and click on the “For Fish & Wildlife Information” link on the home page which provides a link to “Montana Wolves”).*

**Figure 4.** Response to... “On a scale from 1 (very dissatisfied) to 5 (very satisfied), how satisfied were you with wolf management in Montana BEFORE the 2011 Montana wolf hunt?” Note: The general Montana household survey included a diverse array of Montanans. The resident deer/elk license holder, resident wolf license holder, and resident private landowner surveys focused on specific subsets of Montanans.



**Figure 5.** Response to... “On a scale from 1 (very dissatisfied) to 5 (very satisfied), how satisfied are you with wolf management in Montana AFTER the 2011 Montana wolf hunt?” Note: The general Montana household survey included a diverse array of Montanans (including private landowners, hunters, and non-hunters). The resident deer/elk license holder, resident wolf license holder, and resident private landowner surveys focused on specific subsets of Montanans.



## REASONS FOR PURCHASING (OR NOT PURCHASING) A MONTANA WOLF HUNTING LICENSE, INCLUDING LIKELIHOOD OF PURCHASING A LICENSE IN THE FUTURE

With respect to the resident wolf license holder survey, the most frequently reported reasons for purchasing a 2011 Montana wolf hunting license included:

- There are too many wolves and they are adversely affecting other hunting opportunities and wildlife numbers in general.
- To assist with wildlife management in Montana.
- The number of wolves in the state needs to be controlled.
- To shoot a wolf.
- Wolves don't belong on the Montana landscape, they need to be controlled.
- Wanted a trophy.
- The Montana wolf hunt was a new and different type of hunting opportunity.
- To protect livestock.

With respect to the other three surveys, only seven percent of the respondents from the landowner survey reported they purchased a Montana wolf hunting license in 2011. This compares to 17 percent of the respondents from the resident deer/elk license holder survey and six percent of the respondents from the Montana household survey. Aside from many respondents from the household and private landowner surveys reporting they do not hunt, the most frequently reported reasons for NOT purchasing a wolf hunting license included:

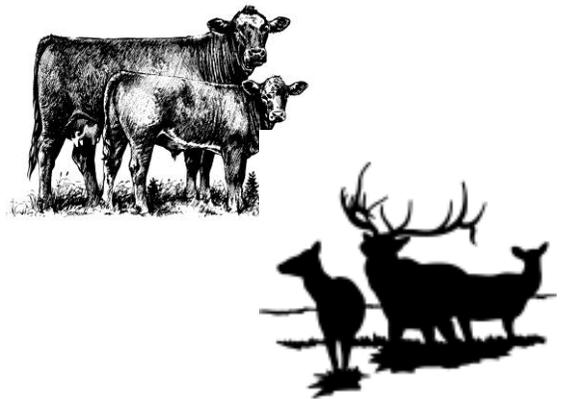
- Lack of time and/or money to hunt.
- Only hunt to fill the freezer. Wolves are not edible. Don't hunt just for the sake of killing.
- No desire to hunt a wolf.
- Physically unable to hunt due to age or health issues.

Eighty-seven percent of the respondents to the resident wolf license holder survey indicated they were likely or very likely to purchase a wolf hunting license at some point in time in the future. This compares to 25 percent of respondents from the private landowner survey; 50 percent of respondents from the resident deer/elk license holder survey; and, 26 percent of the respondents from the general household survey.



## LEVEL OF SUPPORT FOR WOLF HUNTING LICENSE FEES BEING USED TO KILL WOLVES THAT KILL LIVESTOCK IN MONTANA

A strong majority of respondents (72 percent or more of respondents for each survey) reported they support or strongly support wolf hunting license dollars being used to kill wolves that kill livestock in Montana. This question was also asked in the context of using Montana state tax dollars. While there was support for using state tax dollars, that support was significantly less than support for using wolf hunting license dollars. Even so, nearly 60 percent of the respondents to the private landowner survey reported they support or strongly support the use of state tax dollars to kill wolves that kill livestock in Montana. This compares to 57 percent of respondents from the resident wolf license holder survey; 50 percent of respondents from the resident deer/elk license holder survey; and, 45 percent of the respondents from the general household survey.



## LEVEL OF SUPPORT FOR WOLF HUNTING LICENSE FEES BEING USED TO KILL WOLVES OUTSIDE OF THE HUNTING SEASON IN PLACES WHERE DEER OR ELK NUMBERS ARE BELOW MANAGEMENT OBJECTIVES

A strong majority of respondents (70 percent or more of respondents for each survey) reported they support or strongly support wolf hunting license dollars being used to kill wolves outside of the hunting season in places where deer or elk number are below management objectives. This question was also asked in the context of using Montana state tax dollars. While there was support for using state tax dollars, that support was significantly less than support for using wolf hunting license dollars. Even so, two-thirds of the respondents to the wolf license holder survey reported they support or strongly support the use of state tax dollars to kill wolves outside of the hunting season in places where deer or elk numbers are below management objectives in Montana. This compares to 57 percent of respondents from the private landowner survey; 58 percent of respondents from the resident deer/elk license holder survey; and, 47 percent of the respondents from the general household survey.

## DISCUSSION

The baseline information gathered from the four surveys described herein will assist FWP to monitor whether or not key human dimensions objectives of Montana's wolf hunt are being met over time as new seasons are implemented. From these baseline surveys, it was learned that:

- Public tolerance of wolves being on the Montana landscape is generally quite low across the state. Of note, the 2011 Montana wolf hunt did not appear to significantly affect overall tolerance towards wolves. Reported tolerance among survey respondents for each of the four surveys was the same both before and after the 2011 hunt. These findings suggest that attitudes and beliefs regarding wolves may be highly resistant to change and not easily influenced by specific management efforts. Repeated surveys over time will help clarify this point.
- There is considerable tolerance for the concept of wolf hunting in the state. And, tolerance for wolf hunting was not just limited to those survey respondents who reported they are intolerant of wolves in general.
- Public satisfaction with overall wolf management in the state significantly improved as a result of the 2011 Montana wolf hunt.
- There was little agreement among the survey respondents regarding whether or not the regulations for the 2011 Montana wolf hunt were satisfactory. Survey results do, however, tend to suggest support for a more aggressive approach to wolf harvest regulations in the state considering the fact that wolves are elusive and can be difficult to hunt even under the best of circumstances.
- Wolf license holders are primarily interested in helping out with wildlife management in the state. Many respondents from the resident wolf license holder survey reported they think there are too many wolves in the state and want to help control their numbers.
- FWP might expect to see an increase in wolf license sales in the future. For example only 17 percent of the respondents to the resident deer/elk license holder survey reported they purchased a 2011 wolf license. However, 50 percent reported they anticipate purchasing a wolf license in the future.
- There appears to be strong support for wolf license dollars being spent to help reduce wolf-caused livestock losses and deer/elk predation by wolves in Montana. There is also considerable support for general state tax dollars to be applied to these efforts as well. These results support FWP's current allocation of \$110,000 annually for wolf removals in response to livestock depredations and suggest potential for general tax dollars to be made available as well.

- A relatively small percentage of respondents from all four surveys reported they actively participated in the formal process the FWP Commission used to authorize the 2011 Montana wolf hunt. These results demonstrate the real value of public attitude surveys such as the ones described in this summary. These types of surveys aid FWP staff and Commissioners in their efforts to better understand the values of a broader array of stakeholders when making important wildlife management decisions.

Maintaining positive and effective working relationships with stakeholder groups, increasing public acceptance of wolf harvest, and enhancing open communication to better inform decisions are all important objectives of Montana's wolf harvest season setting process. The four surveys described herein were conducted by FWP to help measure these and other important human dimensions objectives, and establish a set of baseline information for these objectives. Following the 2012 Montana wolf hunting season, FWP intends to replicate these surveys in an effort to further measure and monitor trends in public attitudes and opinions regarding wolves and wolf harvest management in Montana. 🌐

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