

# PUBLIC OPINIONS AND PERCEPTIONS OF MOUNTAIN LION ISSUES

# $STATEWIDE \ SUMMARY$

Prepared for:

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# PUBLIC OPINIONS AND PERCEPTIONS OF MOUNTAIN LION ISSUES

#### INTRODUCTION

#### **BACKGROUND AND OBJECTIVES**

In 2005, the Colorado Division of Wildlife retained Corona Research to test public perceptions and opinions about a variety of issues related to mountain lions. The evaluation was conducted via a mail survey of Coloradans. This survey was intended to answer several questions, including the behavior of Coloradans towards mountain lions, public awareness regarding mountain lion issues, and possible responses toward mountain lion issues, approaches, and policies.

#### REPORTING

This report contains the full findings for the statewide population, along with key findings of the survey. A separate full technical report provides detailed findings for a number of population segments: geography type (urban/suburban/rural), gender, age, household size, pet/animal ownership, hunting activity, and general outdoors activity

Note that the key findings may include references to demographic subpopulation analyses that are included only in the full technical report, as opposed to this report of statewide findings.

#### METHODOLOGY

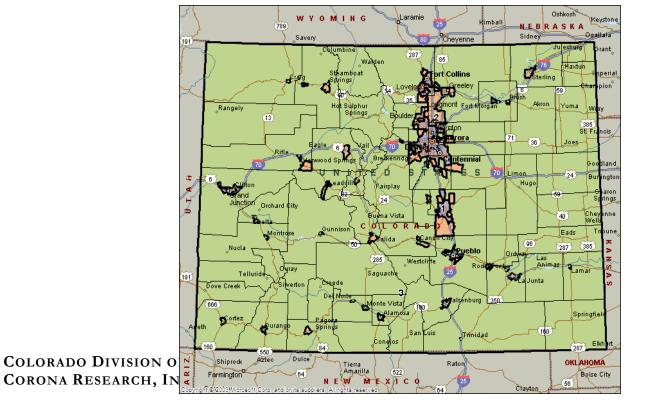
The surveys were conducted by mail with Colorado residents in three types of locations: urban, rural, and suburban/town. These regions were defined as follows:

• Urban residents were defined as those residents living in metropolitan areas (defined by the U.S. Bureau of the Census as more than 50,000 people), and in Census Tracts that contain a population density of at least 267 people per square mile. According to this

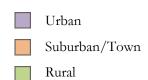
definition, 74.7 percent of the state's population is urban, and those residents are clustered in the Boulder, Colorado Springs, Denver, Fort Collins, Grand Junction, Greeley, and Pueblo metropolitan areas.

- Suburban/Town residents were defined as those residents living in any Census Tracts that are not classified as urban (above), and which have at least 80 people per square mile. According to this definition, 9.9 percent of the state's population lives in suburban/town settings, concentrated on the outskirts of metro areas and the cores of micropolitan areas and towns throughout the state.
- Rural residents were defined as those residents living in any Census tract with a population density of less than 80 people per square mile. According to this definition, 15.4 percent of the state's residents live in rural areas, which includes all areas of light development throughout the state, as well as the outskirts of towns and micropolitan areas and occasional enclaves in or near metropolitan areas.

The following map illustrates the three different regions. Since there are over 1,000 census tracts, most tracts are not independently visible.



## Survey Regions – Urban, Suburban/Town, and Rural



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In order to test response rates and examine reactions to questions, the study team conducted a pretest in which 150 surveys were mailed to random households in each of the three regions. The pretest offered the research team the opportunity to examine responses to questions and make revisions where appropriate, in order to ensure clear, concise, and unbiased questions. It also provided initial response rates that allowed the team to determine the number of mailings necessary to pursue a goal of obtaining 1,200 total surveys, with a goal of 400 completed surveys per region. (In order to efficiently gather statistically significant information for rural and suburban populations, those two groups were intentionally oversampled in the survey.)

A copy of the final survey instrument is presented in an appendix to this report.

Because the response rates differed in the full survey as compared to the pretest, differing numbers of surveys were collected from each region. However, the total number of surveys surpassed the original goal of 1,200, with a total of 1,298 surveys received (4,750 surveys were mailed.).

- 336 surveys specifically from Urban communities (response rate of 26 percent)<sup>1</sup>
- 576 surveys specifically from Suburban communities (response rate of 31 percent)
- 386 surveys specifically from Rural communities (response rate of 29 percent)

Mail surveys, like any other type of survey, do not precisely reflect the entire population of the state when merely summed and totaled. Women, for example, are more likely to complete mail surveys than are men, and older people are more likely to respond than are younger people. In this particular study, suburban and rural populations were intentionally oversampled, and were thus significantly overrepresented in the raw data. Other biases could occur as well. To account for this factor, the study team developed a unique weighting factor for every single response that adjusted that person's representation in the survey to account for age, gender, and region of residence, so that the weighted sum total of all survey responses more closely resemble the demographics of the state's population in selected key measures. These weighting factors were developed in the following manner:

<sup>&</sup>lt;sup>1</sup> Response rates are calculated as the number of completed surveys divided by the difference between the number of surveys mailed and the number of surveys returned as undeliverable. The survey was a one-time mailing with no pre-notices or follow-ups, so this response rate represents a typical to above-average response rate for a public survey.

- Demographic groups whose raw survey responses were exactly equal in proportion to their representation in the total state population received a weighting factor equal to 1 (each of their responses would account for exactly one response).
- Demographic groups whose raw survey responses were smaller in proportion than their representation in the state population should receive a weighting factor greater than 1. For example, if 10 percent of the population are males in a specific age range in a specific region type (urban, rural, suburban/town, but only 5 percent of the people who answer the survey are males in that age range and region, then the assigned weighting factor would be 2.00 for those 5 percent of responses. This means that each of those responses would account for two "votes" in the survey.
- Demographic groups whose raw survey responses were larger in proportion than their representation in the state population received a weighting factor less than 1. For example, if 10 percent of the population are females in a specific age range in a specific region type (urban, rural, suburban/town but 15 percent of the people who answer the survey are females in that age range and region, then the assigned weighting factor would be 10/15 or 0.67. This means that each of those responses would account for two-thirds of a "vote" in the survey.

The responses of some respondents who have traits that were underrepresented in the group of survey participants were therefore weighted more heavily than the responses of people whose traits were overrepresented among the survey participants. For this reason, the survey findings represent a much more complex, but also more accurate analysis than would a mere tabulation of the raw data. Weighting factors ranged from 0.06 for (highly oversampled) suburban males age 55 to 64 and over up to 7.85 for (strongly undersampled) urban females age under 24.

#### SEGMENTATION

During the course of the survey, Corona gathered information on several personal attributes of survey respondents, including their location, age, gender, number of members in the household, number of outdoor activities in a year, highest level of education, if the respondent hunts, and if the respondent has a pet or other animal (including livestock or hobby livestock). It is possible to segment findings among these groups with varying degrees of confidence; this report provides information for each question for the total population, as well as breakdowns for these subgroups.

In the full report Corona examines the responses for each of the following segmentations.

### Subpopulations Examined in the Report

Category	Definition	Reported in This Group
Geographic Region	See Urban/Suburban/Rural regional definitions in "Methodology" Section above	Demographics
Gender	Male versus Female	Demographics
Age	34 or younger, 35 – 54 years old, and 55 or older	Demographics
Household Size	One-person household, 2-3 people household, and 4+ people household	Demographics
If the respondent has a pet/animal	Yes or No – includes pets, hobby livestock, and livestock under "yes" category	Behavioral Demographics
If the respondent hunts	Yes or No – self-reported perception of whether the person considers himself/herself to be a hunter	Behavioral Demographics
Number of outdoor activities in a year	Frequent outdoor person (40 or more outdoor activities in a year), moderate outdoor person (14-39 outdoor activities in a year), infrequent outdoor person (2-13 outdoor activities in a year), and not outdoor person (0-1 outdoor activities in a year). <sup>2</sup> An activity is defined as one activity one time. For example, a person who fishes 5 times per year and hikes 10 times per year would have 15 total activities, qualifying as a moderate outdoors person. Eligible activities include wildlife viewing, horseback riding, riding ATVs or OHVs, bird watching, water recreating (boating, kayaking, etc.), hunting, hiking/backpacking, fishing, camping, and biking/cycling.	
Highest level of Education	Holders of a four-year college degree versus people who do not have a four-year college degree	Behavioral Demographics

<sup>&</sup>lt;sup>2</sup> Relationships between different demographic and behavioral characteristics are presented in the Demographics section of this report. That section shows, for example, what proportion of hunters are frequent outdoors people, what proportion of people in each age group own pets or animals, and other relationships that may aid in the interpretation of findings.

Note that respondents appear in <u>all</u> categories that match their demographic or behavioral profile. For example, a respondent may be included as a male, as a person under 35, as a frequent outdoors person, as a non-pet owner, and others. All respondents are included in the statewide totals.

#### MARGINS OF ERROR

A total of 1,298 surveys was completed, resulting in a margin of error of (plus or minus) 2.7 percent with a 95 percent confidence level in the results. This represents a very strong one-time survey, and will provide a margin of error of at most 3.8 percent if this survey is conducted a second time in the future (with at least 1,298 surveys) to make comparisons.

Presented on the following page is a table of the margins of errors for each segmentation subgroup. Generally, it is preferred that a segment margin of error be 10 percent or lower, but higher margins of error up to 18 percent can provide value if they show a strong pattern. Margins of error above 18 percent mean that the results should generally be disregarded, but large noted differences may nonetheless point out initial findings that can inform the direction of subsequent research. Additionally, even if individual margins of error are large, a pattern across a continuous range of segments (e.g., age or income categories) can be informative.

These tables do not provide margins of error for segments that refused to answer a demographic question, such as people who refused to provide their age. Those refusals typically represent less than one percent of the survey population, with the exception of household income, where approximately eight percent of respondents declined to answer.

#### Segmentation Margins of Error

(Smaller margins of error represent more confidence in the findings.)

All Respondents				
Demographic Group	Margin of Error			
Urban	5.3%			
Suburban/Town	4.1%			
Rural	5.0%			
Female	4.2%			
Male	3.6%			
34 or younger	7.5%			
35 - 54 years old	4.1%			
55 or older	4.2%			
One-person Household	5.2%			
2 - 3 people Household	3.8%			
4+ people Household	5.9%			
Frequent outdoor person (more than 40 act. per year)	5.1%			
Moderate outdoor person (14-39 act. er year)	4.5%			
Infrequent outdoor person (2-13 act. per year)	5.9%			
Not an outdoor person (0-1 act. per year)	7.8%			
Not a college degree	3.9%			
4-years college degree	3.9%			
Hunter	5.1%			
Non hunter	3.3%			
Has a pet/animal	3.2%			
Does not have a pet/animal	5.4%			

The margin of error represents the band of uncertainty that is inherent in any survey, due to the fact that participants are randomly selected. In their simplest terms, the margins of error above represent the size of that uncertainty band at a 95 percent confidence level. For example, if the margin of error for hunters is 5.1 percent, and 50 percent of hunters answer "yes" to a yes/no question, then we can conclude that there is a 95 percent chance that, if every hunter in the state had responded, the "true" figure would be between 44.9 and 55.1 percent.

#### **INTERPRETATION OF FINDINGS**

This report cites the statistics of various opinions and perceptions among the statewide population and among various demographic and behavioral groups. The reader should consider two possibilities when observing differences in opinions or perceptions among different demographic or behavioral groups.

- 1. The difference could be a cause-and-effect relationship with the demographic group. For example, if younger people have a different opinion than older people on a particular topic, this could be a direct result of being younger: different life experience, different formative environment, or other cohort factors. In that case, age can be seen as the driving factor in the difference.
- 2. In contrast, the difference could be a secondary result of an extrinsic factor that happens to manifest itself differently among different subpopulations. For example, if people in larger households hold a different opinion than people in smaller households, it could be because they have a different lifestyle (on average), and that lifestyle exposes them to different situations, as opposed to being a direct result of household size. (As a purely hypothetical example, if larger households are more likely to have young children, this may affect the duration of their recreation activities in mountain lion habitat, which may then affect their perceived exposure.) Therefore, a difference in opinions is observed, but in an identical situation, the two groups' fundamental beliefs may be identical.

This observation is made to encourage the reader to ponder potential reasons for observed differences that go beyond the surface. A difference between demographic or behavioral groups may not always be a direct cause and effect relationship.

Readers should also note that these findings represent a point-in-time survey. The findings are statistically representative of the various populations that are studied as of the mid-2005 time frame, but changes in attitudes can occur over time.

#### **REPORT LAYOUT**

Within the main body of the survey report, eight sections are presented:

- Section 1 presents respondents' general knowledge and experience with mountain lions.
- Section 2 presents respondents' perceptions about how likely is to encounter a mountain lion during different activities.
- Section 3 presents respondent's general impressions about mountain lions.
- Section 4 presents respondents' perceptions about human coexistence with mountain lions.
- Section 5 summarizes respondents' level of acceptance of various strategies to deal with situations involving mountain lions.
- Section 6 summarizes respondents' level of acceptance of various policies and approaches to deal with situations involving mountain lions.
- Section 7 presents respondents' preference regarding how to obtain information about mountain lions.
- Section 8 summarizes respondents' demographic characteristics including gender, race, age, members of the household, education, etc. This section also examines interactions between different demographic characteristics.

#### **REPORTING NOTES**

Figures are rounded to the nearest whole number, but the bars represent actual statistics. Therefore, for some graphs, figures that appear to be identical will have graphical representations that differ slightly in size. For example, a graph showing 30.7 percent versus 31.3 percent will present the bars as being slightly different lengths, but the figures will both be reported as 31 percent.

Note that some of the categories in some graphs do not appear to add to 100 percent (stacked bar graphs, pie charts, etc.). This is due to rounding of the percentages to whole numbers.

With regard to figure labeling, the first number in each exhibit number correlates to the question number in the survey, while the second figure represents a label for each exhibit describing the results for that question. For example, Exhibit 6-12 is the 12<sup>th</sup> exhibit presenting data from Question Number 6 of the survey.

#### **KEY FINDINGS**

While many conclusions and implications can be discerned from the survey findings, several stand out as being of particular interest. These key findings, are discussed below in no particular order. Sources refer to the exhibit number in the <u>full technical report</u> in which the findings can be seen, including demographic breakout of all responses.

Mountain Lions are considered to be common, yet are also commonly thought to be endangered. Most survey respondents (79 percent) believe that mountain lions are somewhat common or very common in Colorado, yet 39 percent of the population also believes that mountain lions are endangered in Colorado, and another 25 percent aren't sure. *Source: Exhibits 1 and 2 in Statewide Report and Exhibits 1-1 and 2-1 in Technical Report* 

A majority of people think that the mountain lion population is stable or increasing, and this matches their preferences. A majority of survey respondents believe that the mountain lion population in Colorado is stable or increasing in the past five years (61 percent – 28 percent believe it's increasing and 33 percent believe it's stable). This more or less mirrors the future goals for the population, since 38 percent would like to see an increase in the population during the next five years, and another 41 percent would prefer that the population remain about the same. Only 7 percent of respondents would prefer to see a decrease in the population over the next five years, whereas about 22 percent of the population believes that the population decreased during the past five years.<sup>3</sup> Source: Exhibits 3 and 12 in Statewide Report and Exhibits 3-1 and 12-1 in Technical Report

**Mountain lion sightings are highly regional.** Statewide, 11 percent of respondents say that they have personally seen a mountain lion in their community during the past five years. However, this figure is only 6 percent in urban areas, and is at 16 percent in suburban/town areas. In rural areas, 25 percent of respondents say that they have seen a mountain lion in their community. *Source: Exhibit 4 in Statewide Report and Exhibit 4-2 in Technical Report* 

Interestingly, reading or hearing about a mountain lion shows less regionalism, probably due to media coverage. The figures are 36 percent, 44 percent, and 59 percent for the past five years for urban, suburban/town, and rural populations, respectively. *Source: Exhibit 4 in Statewide Report and Exhibit 4-2 in Technical Report* 

Mountain Lions are not high on the list of potential concerns for outdoor recreation. Among a list of eight potential outdoor recreation hazards, being attacked by a mountain lion ranked seventh, below (in decreasing order of concern) being attacked by another person, being hurt in a

<sup>&</sup>lt;sup>3</sup> In this and several other key findings, significant portions of the population did not have an opinion. For this reason, some categories do not add up to 100 percent when reported in this executive summary. Detailed findings are presented in the full report.

fall, being hit by lightning, getting lost, being hurt by falling material (e.g., avalanche), and being attacked by a bear. A mountain lion attacked ranked above only the category of being attacked by some animal other than a bear or a mountain lion. *Source: Exhibit 7 in Statewide Report and Exhibits 7-1 through 7-17 in Technical Report* 

Likelihood of being attacked by a mountain lion is greatest while recreating in or near mountain lion habitats. 79 percent of respondents believed there is high, moderate or slight likelihood of being attacked while recreating in or near mountain lion habitat., and even more respondents (88 percent) believed that they were likely to encounter a mountain lion (whether or not it results in an attack) while recreating in or near their habitat. *Source: Exhibit 8 in Statemide Report and Exhibits 8-1 in Technical Report* 

Pet safety is a concern. Respondents are more likely to be concerned about their pet being attacked than to be concerned about themselves or a family member being attacked, in both at-home situations and while recreating in mountain lion habitat. While 12 percent of respondents have at least a slight concern about being attacked by a mountain lion during their daily routines, 14 percent have at least a slight concern about their pets being attacked at home. During recreation in mountain lion habitat, 73 percent of respondents have at least a slight concern about being attacked by a mountain lion habitat, 73 percent of respondents have at least a slight concern about being attacked by a mountain lion, of whom 4 percent are "very concerned". In contrast, only 56 percent have some concern about their pet being attacked while recreating (though 21 percent don't have pets), but 6 percent are "very concerned." *Source: Exhibit 9 in Statewide Report and Exhibits 9-1 through 9-13 in Technical Report* 

It is important to most people that mountain lions exist, both now and in the future. An overwhelming majority of people agreed with the statements "It is important to me to know that mountain lions exist, even if I never see one," and "It is important to me that future generations have mountain lions." A total of 96 percent of respondents agreed with the first sentence, and 93 percent agreed with the second sentence. *Source: Exhibit 10 in Statewide Report and Exhibit 10-1 in Technical Report* 

The hunting of mountain lions is a fractious issue. Respondents are split on this issue, with 47 percent supporting legal and regulated hunting and 41 percent opposed to it. Those who were opposed to it were more likely to feel strongly about this issue (18 percent strongly support hunting, and 24 percent strongly oppose it). In response to a question about whether or not mountain lion hunting should be banned, 46 percent disagreed with a ban, while 34 percent agreed with a ban. *Source: Exhibit 10 in Statewide Report and Exhibit 10-1 in Technical Report* 

Support for mountain lion hunting also varies strongly by demographic and behavioral group. Men are much more likely to support it than women, frequent outdoors people are more likely to support it than people with lower activity levels, and rural/suburban people are more likely to support it than urban people. *Source: Exhibit 10 in Statewide Report and Exhibits, 10-1, 10-4, and 10-5 in Technical Report* 

The population tends to have positive feelings toward mountain lions. A total of 68 percent of respondents say that they have positive overall feelings toward mountain lions, compared to only 2 percent who have negative overall feelings. None of the examined subpopulations had more than 3 percent of respondents providing a negative feeling. People under 35 and females are least likely to have positive feelings toward mountain lions (58 and 60 percent, respectively), while people age 35 to 54 and males are most likely to have positive feelings (77 and 78 percent, respectively). *Source: Exhibit 11 in Statewide Report and Exhibits 11-1 and 11-2 in Technical Report* 

**Respondents are fairly knowledgeable about what they should do if they encounter a mountain lion.** Nearly all respondents (over 99 percent) think that they should stop and back away slowly if they encounter a mountain lions, as opposed to running away. A majority (73 percent) think that they should speak in a firm voice instead of being quiet, raise their arms to look big and threatening (83 percent) instead of crouching down to look nonthreatening, fight back if attacked (62 percent) as opposed to playing dead, and try to scare the lion away (65 percent) instead of not doing anything that would scare the lion away. *Source: Exhibit 13 in Statewide Report and Exhibit 13-1 in Technical Report* 

**People behave differently when recreating in mountain lion habitat.** A total of 96 percent of respondents stated that they would do something different when recreating in mountain lion habitat, as compared to other areas. Most would simply be more aware of their surroundings in mountain lion habitat (79%), and a majority would keep their children within sight (73 percent), bring another person with them (61%), bring a protective device such as a walking stick or pepper spray (53 percent), and intentionally make noise as they walk (51%). *Source: Exhibit 14 in Statewide Report and Exhibit 14-1 in Technical Report* 

**People believe in personal responsibility about pets and animals.** A majority of respondents believe that owners of pets, hobby livestock, and livestock should take actions to reduce their animals' vulnerability. In general, more than 90 percent of the population and all subpopulations agree. *Source: Exhibit 16 in Statewide Report and Exhibit 16-1 in Technical Report* 

There is no global consensus about how to handle human/mountain lion interactions. However, for most situations there are management options that are more preferred over others. Preferred options are:

Issue	Preferred Option	Percent Finding Solution Acceptable	Percent Finding Solution Unacceptable
Sighting a mountain lion in a residential area	Monitor the mountain lion but don't take direct action	75%	22%
A mountain lion kills a pet in a residential area	Try to capture and relocate the mountain lion	83%	15%
A mountain lion attacks and injures/kills a person in a residential neighborhood	Destroy the lion	67%	25%

Source: Exhibits 17, 18, and 19 in Statewide Report and Exhibits 17-1, 18-1, and 19-1 in Technical Report

One area where there wasn't a strong consensus on a desired management option was a situation where a mountain lion attacks and injures/kills a person who is recreating in mountain lion habitat. In that situation, 52 percent would find it acceptable to try to capture and relocate the lion, while 41 percent find that option unacceptable. In contrast, 47 percent would find it acceptable to merely monitor the mountain lion but take no action, while 49 percent would find it unacceptable. Destroying the mountain lion produces the highest proportion of respondents who find it "highly unacceptable." *Source: Exhibit 20 in Statewide Report and Exhibit 20-1 in Technical Report* 

There is strong support for providing information to people, and having them be responsible for their own actions. Approximately 98 percent of the population supports providing information to people about mountain lions, and 99 percent support having people be responsible for reducing their risk of encountering a mountain lion. *Source: Exhibit 21 in Statewide Report and Exhibit 21-1 in Technical Report* 

Respondents support taking action in areas where there is a history of human/mountain lion interaction. Only 6 percent of the population would support taking no action in those areas, while 75 percent would oppose taking no action. In addition to providing information and asking people to take responsibility for reducing their own risks (cited in the previous approach), respondents tend to support limiting human development in the area

(46 percent support, 38 percent oppose), reducing mountain lions' food supplies in those areas (40 percent support, 36 percent oppose). More people oppose hunting to reduce the local population than support that action (35 percent support, 44 percent oppose). Source: Exhibit 21 in Statewide Report and Exhibit 21-1 in Technical Report

The population supports active management of mountain lion populations. More people support than oppose each of the management options asked in the survey. Strong support was offered for encouraging people to be responsible for reducing their own risk of mountain lion encounters (98 percent support, 1 percent oppose), expecting livestock owners to learn about mountain lions and reduce risks of encounters with their livestock (95 percent support, 1 percent oppose), conserving mountain lions as a part of Colorado's ecology (93 percent support, 1 percent oppose), conducting research to learn more about mountain lions (88 percent support, 2 percent oppose), taking action toward individual mountain lions that are perceived as dangerous to humans (79 percent support, 9 percent oppose), and maintaining opportunities to hunt mountain lions (40 percent support, 37 percent oppose). *Source: Exhibit 22 in Statewide Report and Exhibit 22-1 in Technical Report* 

The main sources of information about mountain lions are newspapers, television, and trailhead or interpretive signs. While respondents cited a number of types of sources, over 30 percent of the population cited each of these media as information sources (39, 24, and 31 percent, respectively). Over one-fourth of the population (26 percent) did not receive any information from media sources. *Source: Exhibit 23 in Statewide Report and Exhibit 23-15 in Technical Report* 

Sources of proactive information are led by the Internet and by contacting state agencies such as the Colorado Division of Wildlife. If respondents wanted information about mountain lions, 75 percent cited the Internet as a source, and 69 percent cited state agencies such as the Division of Wildlife. No other source was cited by more than 40 percent of respondents. *Source: Exhibit 25 in Statewide Report and Exhibit 24-1 in Technical Report* 

Learning how to deal with sightings and encounters were the most desired informational content. When asked about the importance of various type of mountain lion information, 86 percent of respondents believed information on what to do if you see a mountain lion to be very important, and 74 percent believed it was very important to get information on how to prevent encounters. Slightly less than half believed information on mountain population and distribution was very important, and roughly one-third cited more information on mountain lion biology and ecology to be very important. *Source: Exhibit 25 in Statewide Report and Exhibit 25-1 in Technical Report* 

**Outdoor recreation lifestyles color opinions.** Frequent outdoors people (40+ outdoor recreation activities per year)<sup>4</sup> make up approximately 23 percent of statewide respondents, and have significantly different opinions about mountain lions than do people with lower levels of outdoor activity. These include: frequent outdoors people are more likely to perceive a moderate or high likelihood of encountering a mountain lion during outdoor recreation (39 percent vs. 27 percent statewide), frequent outdoors people are more likely to consider a slight likelihood or higher of encountering a mountain lion in their daily routine (21 percent vs. 15 percent statewide), and they are more likely to perceive at least a slight risk of their pet being attacked while at home (27 percent vs. 18 percent statewide). *Source: Various exhibits* 

Frequent outdoors people are also more likely to believe that monitoring a mountain lion is acceptable when there is a mountain lion/human interaction, regardless of the outcome of that interaction. Interestingly, they are also more likely to consider destroying the mountain lion to be an acceptable option, but only in situations where the mountain lion has attacked a person. *Source: Various exhibits* 

Some people simply don't like the outdoors, and that includes mountain lions. Approximately 12 percent of the population seldom or never participates in outdoor recreational activities, participating in one or fewer activities per year. These people are more likely to believe that mountain lions are very common (31 percent vs. 22 percent of statewide respondents), are less likely to know about mountain lion habits and behaviors according to a number of survey measures, are less likely to believe that they will encounter a mountain lion in various situations, but are more likely to be "very concerned" about encountering or being attacked by a mountain lion if they were to recreate in mountain lion habitat. They are much less likely to have positive feelings toward mountain lions or to believe that it is important that mountain lions exist. *Source: Various exhibits*.

Attitudes toward mountain lions often vary by demographics and geography. While there are many commonalities in opinions by various age groups, genders, regions, outdoor activity levels, and other factors, there are also differences in opinions on many topics. These are described in detail in the full report.

<sup>&</sup>lt;sup>4</sup> Outdoor activities include biking or cycling, camping, fishing, hiking/backpacking, hunting, water recreation, bird watching, riding ATVs or OHVs, horseback riding, or wildlife viewing. An activity was considering doing one of these activities one time. Therefore, frequent outdoors person could have undertaken one of the activities 40 times in the past year, or they could have undertaken every one of the activities at least four times, or anything in between.

#### **DETAILED SURVEY TOPICS**

A listing of the topics covered in the survey is provided below. This report includes only statewide figures; the page number of where the topic can be found in the full technical report with graphs and demographic subpopulation analyses is provided in *italics* at the end of each topic, to allow for easy lookup.

- How common are mountain lions in Colorado. (11)
- Mountain lions as an endangered species in Colorado. (14)
- Relationships between mountain lions and deer. (14)
- Mountain lion activity during the daytime. (14)
- Has the mountain lion population in Colorado increased/decreased over the past 5 years? (23)
- Mountain lions observed in the community (past five years vs. ever seen). (26)
- Mountain lions observed while recreating (past five years vs. ever seen). (26)
- Reading or hearing about mountain lions coming to a community (past five years vs. ever). (26)
- Mountain lions causing problems in a community (past five years vs. ever). (26)
- Major food sources of mountain lions. (36)
- Distance from respondent's home where nearest mountain lions inhabit. (50)
- Level of concern about being attacked by a mountain lion, a bear, another animal, a person, hit by lightning, hurt in a serious fall, getting lost, and being hurt by falling material. (51)
- Likelihood and level of concern about encountering a mountain lion during daily routines or while recreating in or near mountain lion habitat, being attacked by a mountain lion during daily routines or while recreating in Mountain lion habitat, and pet(s) being attacked by a mountain lion at home or while recreating with a person in or near mountain lion habitat. (*68*)
- Level of agreement or disagreement that the presence of mountain lions is a sign of a healthy environment, legal and regulated hunting of mountain lions, hunting of mountain lion should be banned, importance that future generation have mountain lions, and importance that mountain lions exist now. (95)
- General feelings toward mountain lions. (106)
- Preferences about future mountain lion population size in Colorado. (109)
- Potential reactions when encountering a mountain lion. (113)
- Precautions taken when recreating in mountain lion habitat. (123)
- Likelihood of reporting to authorities if a mountain lion is seen. (124)
- Responsibilities of the people who live in or near mountain lion habitat regarding their pet(s), livestock and their own safety. (129)

- What authorities should do if a mountain lion is seen in a residential area, has come to a residential area and killed a pet, has come to a residential area and injured/killed a person, and has attacked and injured/killed a person who has recreating outdoors. (137)
- Support or opposition to approaches to reduce confrontation between humans and mountain lion where there is a history of human/mountain lions encounters. (175)
- Support or opposition to mountain lion management goals for Colorado agencies. (187)
- Sources of mountain lion related information received during the last 12 months. (214)
- Preferences for obtaining information about mountain lions. (217)
- Importance of different types of mountain lion-related information. (221)
- Level of respondents' engagement in outdoor activities. (231)
- Hunting experience of respondents. (234)
- Demographics of respondents. (236)
- Locations in which the respondents grew up, and where they live now. (248)

#### SECTION 1 KNOWLEDGE AND EXPERIENCE WITH MOUNTAIN LIONS

This section of the survey examines the survey respondents' knowledge of, and personal experiences with, mountain lions in Colorado.

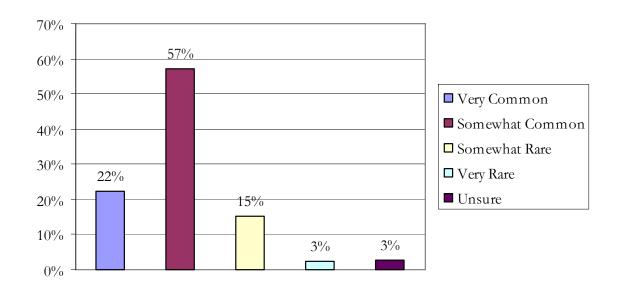
#### MOUNTAIN LIONS ARE GENERALLY BELIEVED TO BE COMMON IN COLORADO

Exhibit 1 shows that more than half (57 percent) of the survey respondents thought that mountain lions are somewhat common in Colorado. Additionally, another 22 percent of respondents believed that mountain lions are very common in the state.

Approximately 15 percent of respondents considered mountain lions to be somewhat rare in Colorado, and only 3 percent believed that mountain lions are very rare.

Respondents who believed that mountain lions are common to some extent outnumbered by a 4.4-to 1 ratio respondents who believed that mountain lions are rare.

# Exhibit 1 Presence of Mountain Lions in Colorado. (How common do you think mountain lions are in Colorado?)



#### A MAJORITY OF RESPONDENTS BELIEVED THAT MOUNTAIN LIONS ARE USUALLY FOUND WHERE THERE ARE DEER.

A majority (87 percent) of the general survey population agreed to some extent with the statement that mountain lions are present where there are deer.

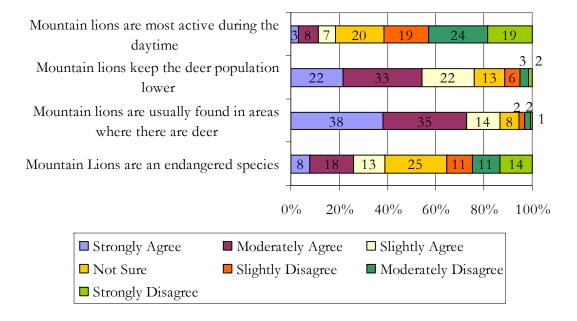
Approximately three quarters of the respondents agreed to some extent with the statement that mountain lions keep the deer population lower.

Similarly, only a small proportion of respondents believed that mountain lions are most active during the daytime (18 percent.)

In all cases except the last question (mountain lions are an endangered species), a larger portion of respondents were correct in their knowledge than were incorrect.

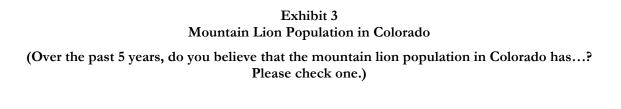
### Exhibit 2 Characteristics of Mountain Lions - Demographic

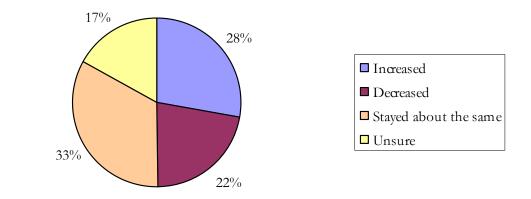
(For each of the following statements, please indicate to what extent you agree or disagree. For each item below, please circle one number)



#### RESPONDENTS WERE SLIGHTLY MORE INCLINED TO THINK THAT MOUNTAIN LION POPULATIONS ARE INCREASING OR STAYING THE SAME

A total of 28 percent of statewide respondents believed that the mountain lion population has increased in the past five years. This was 6 percentage points more than the people who believed that this population has decreased. The largest proportion, 33 percent, believed that populations have stayed about the same.





#### MOUNTAIN LION SIGHTINGS ARE NOT UNCOMMON

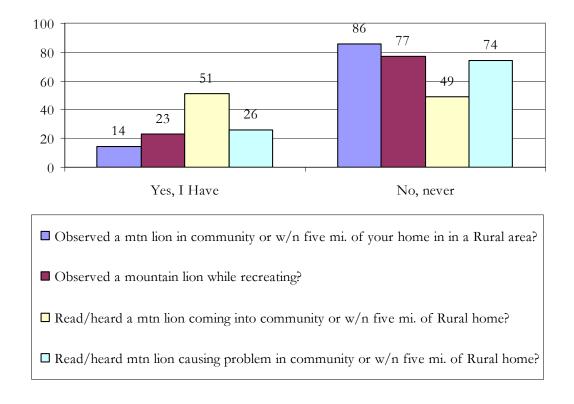
Exhibit 4 shows that nearly 1 in 7 survey respondents (14 percent) have seen a mountain lion in their community at some point in their life, and nearly one in four (23 percent) have seen a mountain lion while recreating.

Over half of respondents (51 percent) have read or heard about a mountain lion coming into their community, and roughly half of those (26 percent) read or heard about a mountain lion causing problems in their community.

#### Exhibit 4

Personal Experience with Mountain Lions

# (Please answer each of the following in terms of your personal experience with mountain lions. Please check all that apply within each category.)



#### A MAJORITY OF RESPONDENTS THOUGHT THAT SMALL MAMMALS OR DEER ARE THE MAJOR FOOD SOURCE OF MOUNTAIN LIONS.

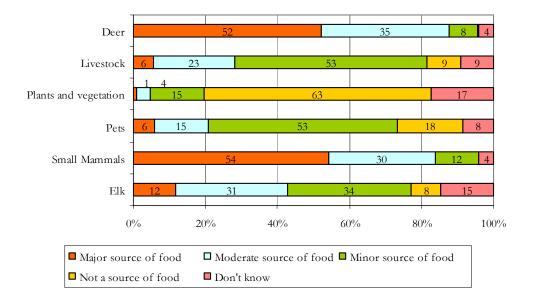
More than half of statewide survey respondents thought that small mammals and deer are major food sources for mountain lions (Exhibit 5).

A small proportion of respondents believed that elk, pets, and livestock are a major food source of mountain lions, and very few respondents (1 percent) indicated that plants and vegetation are a major source of food for mountain lions.

Note that respondents could identify more than one item as a major food source.

#### Exhibit 5 Major Food Sources of Mountain Lions

(To the best of your knowledge, to what extent are each of the following food sources for mountain lions? For each item below, please circle one number.)



#### SECTION 2 ENCOUNTERING A MOUNTAIN LION

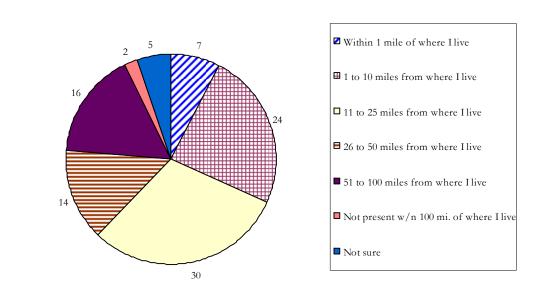
This section of the survey examines survey respondents' perceptions about the likelihood of encountering a mountain lion during different activities. It also asks questions about concerns about encountering a mountain lion.

#### NEARLY ONE-THIRD OF RESPONDENTS BELIEVED THAT THEY LIVE WITHIN 10 MILES OF MOUNTAIN LION HABITAT

Exhibit 6 indicates that 61 percent of respondents thought that mountain lions inhabit areas within 25 miles of the respondents' homes. A total of 31 percent believed that mountain lions inhabit areas within 10 miles of their homes, and 7 percent believed that mountain lions inhabit areas within a mile of their homes.

### Exhibit 6 Proximity to Mountain Lions

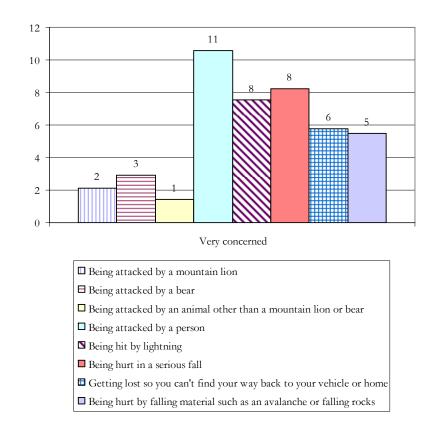
"I think that the nearest mountain lions regularly inhabit areas..." (For this question, consider only wild mountain lions and not mountain lions in zoos or other captivity. I think that the nearest mountain lions regularly inhabit areas... Please check one.)



#### Exhibit 7

Level of Concern During Outdoor Recreational Activities in Natural Areas

(Please rank your level of concern about the following eight potential hazards during your outdoor recreational activities in natural areas. For each item below, please circle one number.)



#### RESPONDENTS HAVE GREATER OUTDOOR CONCERNS THAN BEING ATTACKED BY A MOUNTAIN LION

Mountain lions do not rank high as a concern among outdoor recreationists. Being attacked by another person was the typical recreationist's greatest concern, followed by being hurt in a fall, being hit by lightning, getting lost, being hurt by falling material, and being attacked by a bear. Being attacked by a mountain lion was ranked as the second lowest potential hazard of concern among the potential hazards that were asked. Being attacked by an animal other than a bear or mountain lion was of least concern.

#### SMALL PROPORTIONS OF SURVEY RESPONDENTS VIEW MOUNTAIN LIONS AS A THREAT

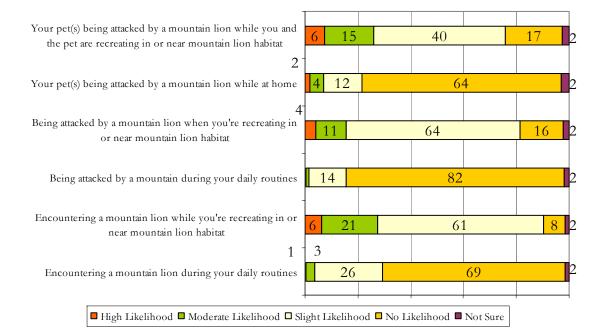
Exhibit 8 shows that a portion of the survey respondents considered mountain lions to be at least a slight threat to them in specific situations, and a small proportion of respondents considered that there was a high likelihood of encountering or being attacked by a mountain lion during daily routines or while recreating in or near mountain lion habitat.

Two-thirds of the proportion who likelihood foresee a high of encountering a mountain lion (6 percent) while recreating in or near mountain lion habitat see a high likelihood of being attacked by a mountain lion (4 percent) in that habitat. These figures may describe a factor" associated "risk with encountering a mountain lion.

#### Exhibit 8

#### Likelihood of Interaction with a Mountain Lion

# (What is the likelihood of you or someone in your household...? For each item below, please circle one number)



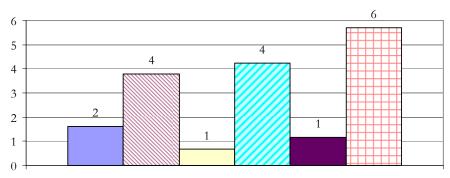
#### Exhibit 9

#### CONCERN FOR PETS WAS GENERALLY HIGHER THAN CONCERN FOR THEMSELVES

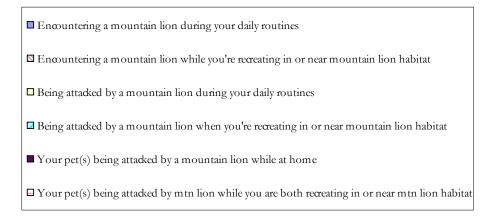
The previous series of questions examined the perceived likelihood of encountering a mountain lion or being attacked by a mountain lion in certain situations. This next series of questions asks about the level of concern about a potential attack or encounter.

Exhibit 9 shows that respondents were more likely to be highly concerned about their pet(s) being attacked by a mountain lion while recreating in mountain lion habitat than about themselves being attacked, or about encountering or being attacked by a mountain lion during their daily routines. Percent of People with a High Level of Concern of you or Someone in your Household Encountering, or Being Attacked by, a Mountain Lion

(What is your level of concern of you or someone in your household...? For each item below, please circle one number)



Very concerned



#### SECTION 3 GENERAL IMPRESSIONS ABOUT MOUNTAIN LIONS

This section of the survey examines survey respondents' general impressions about mountain lions. This section also includes feelings toward the presence of mountain lions in Colorado.

#### Exhibit 10

#### IT WAS IMPORTANT TO PEOPLE TO KNOW THAT MOUNTAIN LIONS EXIST, NOW AND IN THE FUTURE

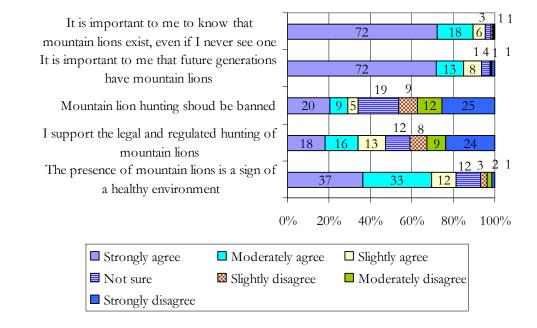
Respondents tend to strongly agreed with the assertion that it was important to them to know that future generations have mountain lions (72 percent), and to know that mountain lions exist, even if they never see one (72 percent).

Among people with strong opinions, people who strongly agreed that mountain lion hunting should be banned were 5 percent less common than people who strongly disagreed. A similar pattern emerges between people who strongly agreed and strongly disagreed with supporting legal and regulated hunting.

37 percent of the respondents strongly agreed with the fact that the presence of mountain lions was a sign of a healthy environment.

#### Presence of Mountain Lions in Colorado

#### (For each of the following statement, please indicate to what extent you disagree or agree. For each item below, please circle one number)

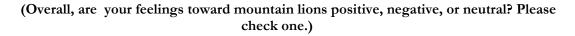


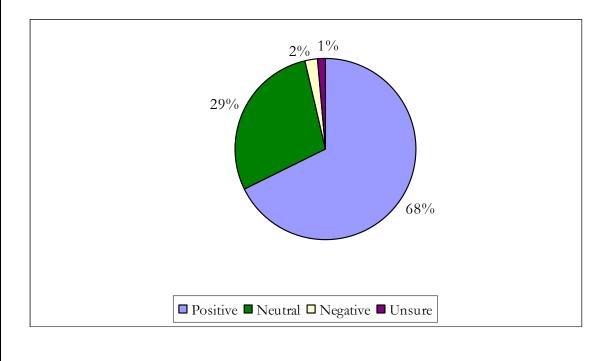
#### A MAJORITY OF RESPONDENTS HAD POSITIVE FEELINGS TOWARD MOUNTAIN LIONS

Two-thirds (68 percent) of statewide respondents had positive feelings toward mountain lions (Exhibit 11) Only 2 percent had negative feelings toward mountain lions.

### Exhibit 11

Feelings Toward Mountain Lions

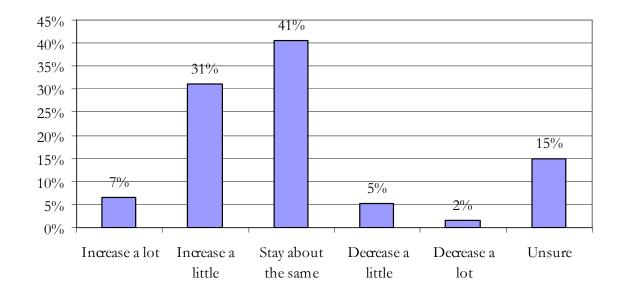




### Exhibit 12

#### Preferred Changes in Mountain Lion Population in Colorado

# (Over the next five years, would you prefer to see the mountain lion population in Colorado...? Please check one.)



#### THE MAJORITY OF THE RESPONDENTS WANT THE MOUNTAIN LION POPULATION TO STAY ABOUT THE SAME OR INCREASE DURING THE NEXT FIVE YEARS.

Exhibit 12 shows that 41 percent of the respondents would prefer that the mountain lion population stay about the same in the next five years, compared to 38 percent desiring an increase and 7 percent preferring a decrease. Another 15 percent weren't sure.

For every person wanting a decrease in population, five people wanted an increase.

#### SECTION 4 HUMAN COEXISTENCE WITH MOUNTAIN LIONS

This section of the survey examines the survey respondents' perceptions about human coexistence with mountain lions. This section also includes beliefs about what to do if encountering a mountain lion.

#### ALMOST ALL THE RESPONDENTS THINK THAT THEY SHOULD STOP AND BACK AWAY SLOWLY.

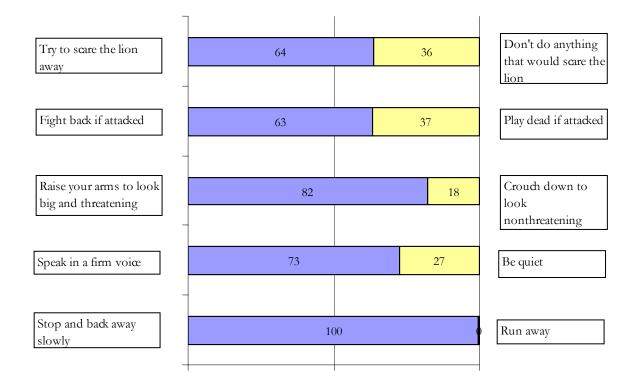
Exhibit 13 shows that nearly all respondents thought that they should stop and back away slowly if they encounter a mountain lion (more than 99.5 percent), as opposed to running away.

A majority of people thought that they should speak in a firm voice (73 percent), raise their arms to look big and threatening (83 percent), fight back if attacked (62 percent), and try to scare the lion away (65 percent) instead of their respective opposites: run away, be quiet, crouch down to look nonthreatening, play dead if attacked, and don't do anything that would scare the lion away.

#### Exhibit 13

What To Do if Encountering a Mountain Lion

#### (The list below provides potential reactions of a person who encounters a mountain lion. For each pair, please select the action that you think a person should do if they encounter a mountain lion. Please circle one action from each pair.)



#### MOST PEOPLE TAKE SOME PRECAUTION WHEN ENTERING MOUNTAIN LION HABITAT

Exhibit 14 shows that 96 percent of respondents would behave differently in some manner if they were recreating in mountain lion habitat, as opposed to recreating in non-habitat.<sup>5</sup>

Approximately 79 percent of statewide respondents would maintain a heightened awareness of what's happening around them while recreating in or near mountain lion habitat. Another 73 percent would be more diligent about keeping their children within sight, and 61 percent would bring another person with them.

#### Plans to Recreate In or Near Mountain Lion Habitat

(If you are planning to recreate in or near mountain lion habitat, are you more likely to do any of the following than if you were recreating in areas where mountain lions are not known to exist? Please check all that apply.)

	Perce	ent of Respo	ndents
	Yes	No	Difference
Maintain a heightened awareness of			
what's happening around me	79.4%	20.6%	58.8%
Keep children within my sight	72.7%	27.3%	45.5%
Bring at least one other person with me	60.9%	39.1%	21.7%
Bring a sturdy walking stick, pepper			
spray, or other self-defense weapon	52.5%	47.5%	5.0%
Intentionally make noise as I walk	51.1%	48.9%	2.1%
Keep my dog on a leash	45.0%	55.0%	-10.0%
Plan my activity for the times of the day			
when I think mountain lions are least			
active	37.1%	62.9%	-25.8%
Bring a dog that might protect me	20.1%	79.9%	-59.7%
Not Applicable	11.8%	88.2%	-76.4%
None. I am not more likely to do any of			
the precautions listed above	4.3%	95.7%	-91.5%

<sup>&</sup>lt;sup>5</sup> Because many respondents would take more than one action, this figure is calculated from the fact that 4.3 percent stated that they would not take any action.

#### THREE QUARTERS OF RESPONDENTS WOULD NOTIFY THE AUTHORITIES IF THEY SAW A MOUNTAIN LION NEAR THEIR HOME.

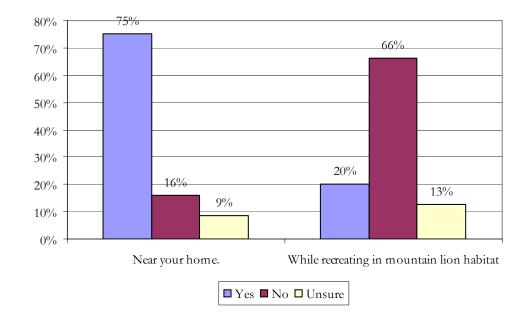
Exhibit 15 shows that 75 percent of the respondents would report it to the authorities if they saw a mountain lion near their home.

However, recreating outdoors produces a different type of responses. Only 20 percent of respondents answered that they would report it to the authorities if they saw a mountain lion while recreating in mountain lion habitat.

#### Exhibit 15

Report to Authorities if Seeing a Mountain Lion

(Would you report it to authorities if you saw a mountain lion...? For each item below, please circle one number.)



#### Responsibility and Acceptance of Presence of Mountain Lions

(For each of the following statements, please indicate to what extent you disagree or agree. For each item below, please circle one number.)

			Perc	ent of Respon	dents		
	Strongly	Moderately	Slightly	-	Slightly	Moderately	Strongly
	Agree	Agree	Agree	Not Sure	Disargee	Disagree	Disagree
People who live in or near mountain lion							
habitats should be responsible for taking							
actions to minimize their chance of							
encountering a mountain lion.	67.3%	20.8%	6.7%	3.6%	0.4%	0.3%	0.9%
Pet owners who live in or near mountain lion							
habitats should be responsible for taking							
actions to minimize their pet's chances of							
encountering a mountain lion.	80.5%	14.3%	2.9%	1.1%	0.7%	0.3%	0.2%
Hobby livestock (i.e. Horse, Llama, Alpaca,							
etc.) owners who live in or near mountain							
lion habitat should accept that there is a							
potential threat to their animals by mountain							
lions.	74.8%	16.6%	5.9%	1.8%	0.2%	0.3%	0.3%
Hobby livestock (i.e. Horse, Llama, Alpaca,							
etc.) owners who live in or near mountain							
lion habitat should be responsible for taking							
actions to minimize their animals' chances of							
encountering a mountain lions.	73.9%	17.4%	6.1%	1.3%	0.8%	0.1%	0.4%
Livestock owners who live in or near							
mountain lion habitat should accept that							
there is a potential threat to their animals by							
mountain lions.	74.0%	18.6%	5.0%	1.5%	0.2%	0.2%	0.5%
Livestock owners who live in or near							
mountain lion habitat should be responsible							
for taking actions to minimize their animals'							
chances of encountering a mountain lions.	70.4%	18.3%	7.1%	3.0%	0.5%	0.1%	0.5%

#### A MAJORITY OF RESPONDENTS STRONGLY AGREED WITH THE ASSERTION THAT PET OWNERS SHOULD TAKE ACTIONS TO MINIMIZE THEIR PET'S CHANCES OF ENCOUNTERING A MOUNTAIN LION.

81 percent of statewide survey respondents strongly agreed that, if they live in or near mountain lion habitat, they should take actions to minimize their pet's chances of encountering a mountain lion (Exhibit 16).

Personal responsibility for one's pets and animals was seen for all types of animals, but was highest for pets, followed by hobby livestock, livestock, and then people themselves.

Note that there were a very small proportion of people who strongly disagree with each of the six questions asked (less than one percent).

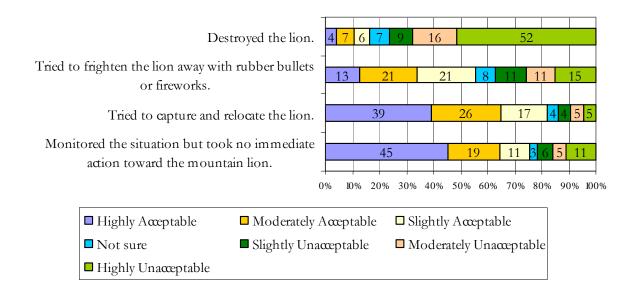
#### SECTION 5 ACCEPTANCE OF VARIOUS STRATEGIES TO DEAL WITH DIFFERENT SITUATIONS INVOLVING MOUNTAIN LIONS

This section of the survey examines survey respondents' level of support or opposition to different strategies to deal with specific situations involving mountain lions. This section also includes respondents' perceptions about what the authorities should do if a mountain lion attacks, kills, or is present in residential areas as well as in outdoor places.

Detailed descriptions were provided in the survey to educate respondents about the biological risks and benefits of each approach, prior to their answering of these questions.

Seeing a Mountain Lion in a Residential Area

(Someone reports seeing a mountain lion in your residential area. Would it be acceptable or unacceptable to you if authorities...? For each item below, please circle one number.)



#### RESIDENTIAL SIGHTING - MORE THAN HALF OF THE RESPONDENTS STATED THAT IT WOULD BE HIGHLY UNACCEPTABLE TO DESTROY THE MOUNTAIN LION.

52 percent of statewide survey respondents would consider it highly unacceptable if authorities destroyed a mountain lion that was seen in their community (Exhibit 17).

Other methods are considered more acceptable. A total of 45 and 39 percent of the respondents would consider it highly acceptable if authorities monitor the situation but take no immediate action toward the mountain lion, and try to capture and relocate the lion, respectively.

It was observed that almost the same proportion of people consider it highly acceptable versus highly unacceptable that authorities try to frighten the lion away with rubber bullets or fireworks (13 and 15 percent respectively).

#### PET KILLED - THE MAJORITY OF THE RESPONDENTS CONSIDER IT HIGHLY ACCEPTABLE THAT AUTHORITIES TRY TO CAPTURE AND RELOCATE THE LION.

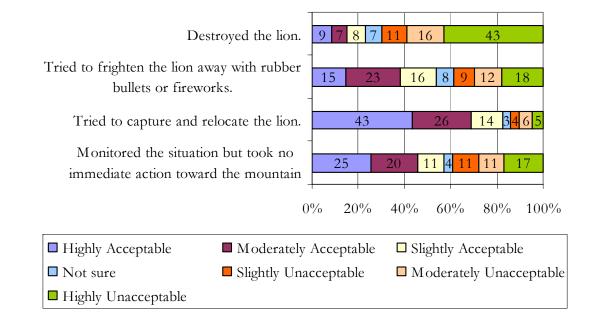
43 percent of statewide survey respondents answered that they would consider it highly acceptable that authorities try to capture and relocate a mountain lion that has killed a pet in a residential area (Exhibit 18).

A slight majority would find it acceptable that authorities try to frighten the lion away with rubber bullets or fireworks, which was slightly lower than the general support for merely monitoring the situation.

43 percent of the respondents consider it highly unacceptable that authorities destroy the lion.

#### A Mountain Lion Kills a Pet in a Residential Area

## (A mountain lion has come into your residential area and killed a pet. Would it be acceptable or unacceptable to you if authorities...? For each item below, please circle one number.)



#### PERSON ATTACKED IN RESIDENTIAL AREA -RESPONDENTS WANT ACTION

Exhibit 19 shows that more than half of statewide respondents consider it highly unacceptable that authorities monitor the situation but take no immediate action toward a mountain lion that has injured or killed a person in a residential area.

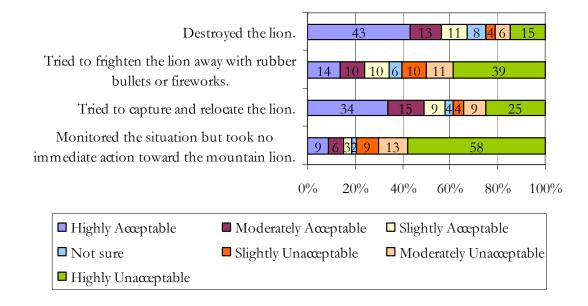
A majority of respondents would also consider it unacceptable to some degree for authorities to try to frighten the mountain lion with rubber bullets and fireworks (39 percent).

Slightly more than half of the population (58 percent) stated that trying to capture and relocate the mountain lion would be acceptable to some degree. However, a larger proportion of the population considers it acceptable that authorities destroy the mountain lion (67 percent).

#### Exhibit 19

A Mountain Lion Attacks and Injures/Kills a Person in a Residential Area

(A mountain lion has come into your residential area and attacked and injured/killed a person. Would it be acceptable or unacceptable to you if authorities...? For each item below, please circle one number.)



#### RECREATIONAL PERSON ATTACKED – RELOCATION WAS THE FAVORED OPTION...BARELY

Exhibit 20 shows that, in the situation that a mountain lion attacks and injures/kills a person outdoors in mountain lion habitat, respondents were more likely to consider it highly acceptable that authorities destroy the lion (25 percent) than any other option. However more people were opposed to it than support it (49 percent versus 44 percent).

On the other hand, more people find it acceptable to some degree to merely monitor the situation, with 47 percent finding this approach acceptable and 49 percent finding it unacceptable to some degree.

Capturing and relocating the lion was acceptable to a small majority (51 percent), with 41 percent finding it unacceptable. This approach also had the least amount of strong opposition of the four options.

Frightening the lion away was the least preferred and most opposed option of the four, with 35 percent finding it acceptable and 57 percent finding it unacceptable.

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#### A Mountain Lion Attacks and Injures/Kills a Person who was Recreating In or Near Mountain Lion Habitat

(A mountain lion has attacked and injured/killed a person who was recreating outdoors in or near mountain lion habitat. Would it be acceptable or unacceptable to you if authorities...? For each item below, please circle one number.)

Destr	oyed the lion.	25	11	86	99		31	
Tried to frighten the lion awa bullets or firewor	-	12 8	15	8 10	16		31	
Tried to capture and rel	o <b>c</b> ate the lion.	23	15	14	69	12	20	
Monitored the situation bu immediate action toward the m		22	15	10 4	10 1	1	28	
	0%	/0 20	%	40%	60%	80	)% 10	000
□ Highly Acceptable	Moderately A	Acceptab	le 🗖	l Sligh	tly Aœ	eptab	ole	
□ Not sure	Slightly Unac	xeptable	e 🗖	Mod	erately	Unac	œptabl	e
Highly Unacceptable								

#### **SECTION 6**

#### ACCEPTANCE OF DIFFERENT POLICIES AND APPROACHES TO DEAL WITH DIFFERENT SITUATIONS INVOLVING MOUNTAIN LIONS

This section of the survey examines survey respondents' level of support or opposition to different policies and approaches toward mountain lions in Colorado.

#### INFORMATION AND PERSONAL RESPONSIBILITY WERE HIGHLY FAVORED APPROACHES TO REDUCING HUMAN/MOUNTAIN LION CONFRONTATIONS

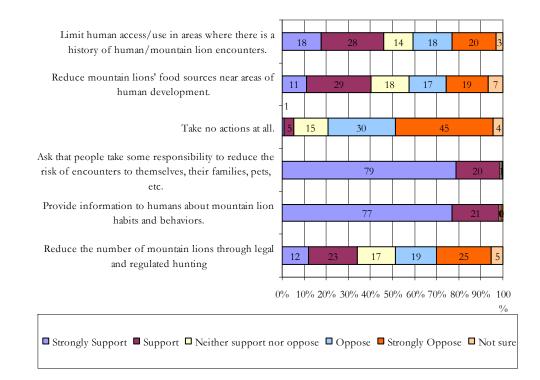
98 percent of the respondents supported providing information to humans about mountain lions. Similarly, 99 percent supported a policy of encouraging personal responsibility.

One-third to one-half of statewide respondents supported reducing the number of mountain lions through legal and regulated hunting, reducing mountain lions' food sources, and limiting human access/use to areas where there is a history of mountain lion/human encounters. However, more people oppose legal and regulated hunting than support it.

Respondents generally opposed taking no actions at all (75 percent).

#### Level of Support for Different Approaches to Reduce Confrontations Between Humans and Mountain Lions

(Please indicate the extent to which you would support or oppose the following approaches to reduce confrontations between humans and mountain lions in locations where there is a history of human/mountain lion encounters. For each item below, please circle one number.)



#### Level of Support for Different Management Goals for Colorado Agencies

(The following represent potential mountain lion management goals for Colorado Agencies. To what extent do you support or oppose them? For each item below, please circle one number.)

		Percent of Respondents Neither								
	Strongly		support nor		Strongly					
	Support	Support	oppose	Oppose	Oppose	Not sure				
Maintain opportunities to hunt										
mountain lions	19.5%	20.7%	17.4%	16.4%	20.7%	5.4%				
Take action toward individual										
mountain lions that are dangerous to										
people	30.6%	48.2%	9.9%	6.0%	3.3%	2.0%				
Conserve mountain lions as a part of										
Colorado's ecology	63.1%	30.2%	4.6%	0.7%	0.2%	1.2%				
Require or expect people who live in										
mountain lion habitat to learn about										
mountain lions and take reasonabble										
actions to minimize their risks	74.7%	22.8%	1.8%	0.6%	0.1%	0.0%				
Require or expect local livestock										
owners in mountain lion habitat to										
learn about mountain lions and take										
reasonable actions to minimize the										
risk to their livestock	70.7%	24.4%	2.8%	0.8%	0.5%	0.8%				
Support and/or conduct research to										
learn more about mountain lion										
populations	58.4%	29.7%	9.3%	0.9%	1.2%	0.5%				

#### MORE THAN THREE QUARTERS OF THE RESPONDENTS SUPPORTED MOST OF THE POTENTIAL MANAGEMENT GOALS PRESENTED IN EXHIBIT 22

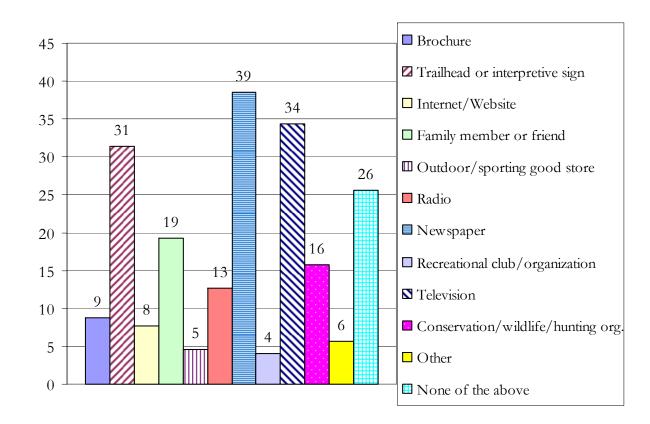
Exhibit 22 shows that more than three-quarters of the respondents supported most of the management goals that were explored. The only exception was maintaining opportunities to hunt mountain lions, which was supported by 40 percent of the respondents and opposed by 37 percent of respondents.

#### SECTION 7 PREFERENCES REGARDING HOW TO OBTAIN INFORMATION ABOUT MOUNTAIN LIONS

This section of the survey examines survey respondents' sources and preferences for obtaining information about mountain lions.

#### Mountain Lion Related Information

### (During the past 12 months, have you seen or heard any mountain lion related information from the following sources? Please check all that apply.)



#### RESPONDENTS WERE MOST LIKELY TO GET MOUNTAIN LION-RELATED INFORMATION FROM THE NEWSPAPER AND THE TELEVISION.

Exhibit 23 shows that statewide respondents were more likely to get information about the mountain lions through the newspaper and the television (39 and 34 percent) than through other sources. The next mostused source was trailheads or signs (31 percent).

One fifth of the population obtained the information through a family member, and another 16 percent obtain information via conservation, wildlife, or hunting organizations.

Note that respondents could check as many sources as they liked. The average respondent cited 2.1 sources.

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#### THE INTERNET AND STATE AGENCIES SUCH AS THE COLORADO DIVISION OF WILDLIFE ARE KEY INFORMATION SOURCES

Exhibit 24 shows that 75 percent of the respondents would search on the Internet to learn more about mountain lions, if they needed information. In a close second, 69 percent would contact a state government agency such as the Division of Wildlife.

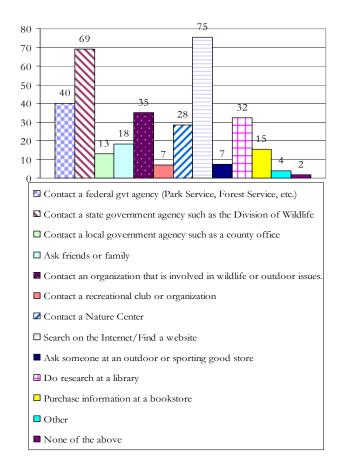
Other key sources included federal government agencies such as the Park Service, etc., and organizations that are involved in outdoor or wildlife issues.

Again, respondents could check as many options as they like. The average respondent cited 3.45 sources.

#### Exhibit 24

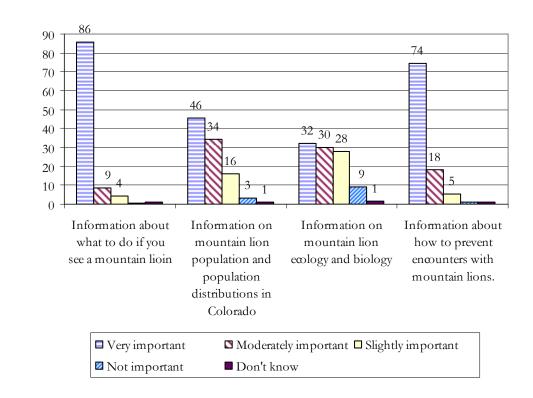
How to get Information About Mountain Lions

### (If you wanted to learn more about mountain lions, how would you try to get that information? Please check all that apply.)



#### Importance of General Information About Mountain Lions

(Please rate each of the following types of mountain lion-related information in terms of its importance to the general public in Colorado. For each item below, please circle one number.)



#### LEARNING TO DEAL WITH SIGHTINGS AND ENCOUNTERS WITH MOUNTAIN LIONS WERE THE MOST IMPORTANT DESIRED EDUCATIONAL CONTENT

Exhibit 25 shows that 86 percent of the respondents considered information about what to do if you see a mountain lion to be very important, and 74 percent believed that information about how to prevent an encounter with mountain lions is very important.

Almost half of the respondents (46 percent) indicated that information about mountain lion populations and population distribution in Colorado is very important.

Slightly less than one-third (32 percent) of the respondents considered information about mountain lion ecology and biology to be very important.

#### SECTION 8 DEMOGRAPHICS

In this section, respondents were asked to provide demographic information. Demographic information is reported after statistical weightings were applied for key population statistics. These statistical weightings adjust age, gender, and region toward the statewide figures, correcting for response bias and intentional oversampling in the data. (For further information, read the methodology section of this report.)

In the exhibits to follow, demographics are reported in total, and also against each other to show relationships and interactions between demographic variables (e.g., what proportion of hunters were female, what proportion of pet/animal owners were rural, etc.).

#### FEMALES AND OLDER PEOPLE WERE THE LEAST LIKELY TO BE FREQUENT OUTDOOR PEOPLE.

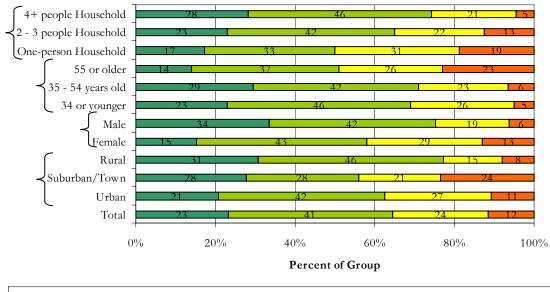
Exhibit 26 shows that after weighting the data, females and older people were the least likely to be frequent outdoor people (15 and 14 percent respectively).

Males were the most likely to be outdoor people (34 percent), and rural people lead more active outdoor lives than do their urban and suburban/town counterparts.

#### Exhibit 26

**Recreation Activities-Weighted Data - Demographic** 

(During the past 12 months, how often have you engaged in each of the following recreation activities? For each item, please circle one number)



Frequent (more than 39 times) Moderate (14 to 39 times) Infrequent (2 to 13 times) None (0 to 1 time)

Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 4+ person households who were frequent, moderate, infrequent, or non-outdoors persons

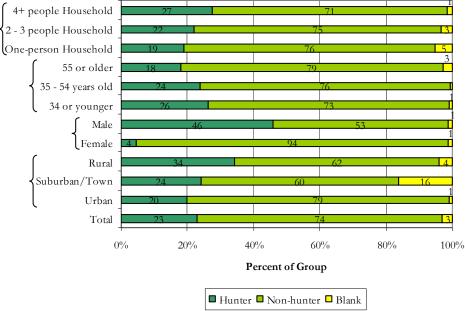
#### MALES WERE THE MOST LIKELY GROUP TO BE HUNTERS.

Exhibit 27 shows that males were the most likely to be self-described hunters (46 percent), and females were the least likely to be hunters (4 percent). Hunting was also more common in rural areas and among younger people.

#### Exhibit 27

Hunters-Weighted Data - Demographic

## (Do you consider yourself to be a hunter? Please, check one)



Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 4+ person households who were hunters or non-hunters.

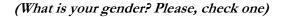
#### THERE WERE MORE MALES THAN FEMALES RESPONDING FROM RURAL LOCATIONS.

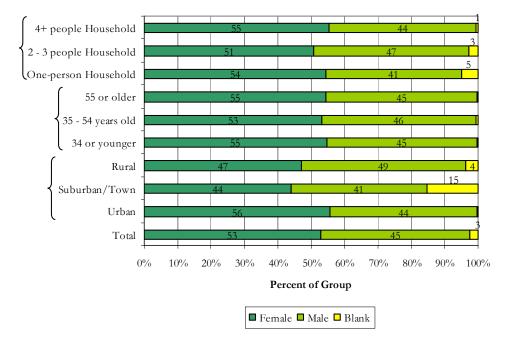
Exhibit 29 shows that responses were slightly tilted toward females, even after weighting factors were applied.

It should be noted that the raw data (prior to weighting) consisted of a majority of males, which is very unusual in survey research. Generally, women are more likely to participate in surveys than are men. The raw survey results may indicate a greater interest by men in the topic of mountain lions, or a lesser interest by women.

#### Exhibit 29

Gender-Weighted Data - Demographic





Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 4+ person households who were female versus male

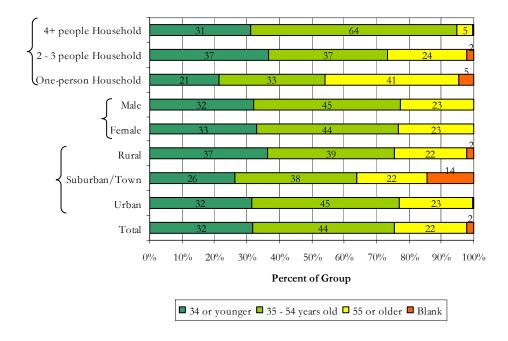
#### PEOPLE WHO LIVE ALONE WERE MORE LIKELY TO BE OLDER THAN YOUNGER.

Exhibit 30 shows that people who live alone were more likely to be age 55 or older, while very few people in large (4+ person) households were in this age group.

#### Exhibit 30

Age-Weighted Data-Demographic

#### (How old are you? Please, check one category.)



Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 4+ person households who fall into each age range

#### HALF OF ALL RESPONDENTS LIVE IN 2- OR 3-PERSON HOUSEHOLDS.

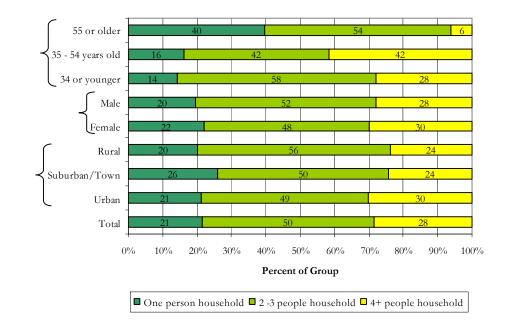
Exhibit 31 shows that for almost all the categories, roughly half of the respondents live in a 2- or 3-person household.

Less than 26 percent of the respondents for each group, except for older people, live alone. A total of 40 percent of older people live alone. In contrast, middle-aged people (age 35 to 54) were more likely than other age groups to live in larger households of four or more people.

#### Exhibit 31

Household Size-Weighted Data-Demographic

(Counting yourself, how many people in your household are in each of the following age categories. Please enter a number in each category. You may leave a category blank if the answer is zero.)



Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 55 or older who live in each size of household.

#### FOR ALMOST EVERY GROUP, MORE THAN TWO-THIRDS OF THE RESPONDENTS HAVE A PET/ANIMAL.

Exhibit 32 shows that for almost every group (with the exception of people who live alone and nonoutdoors people), more than two thirds of the respondents have a pet.

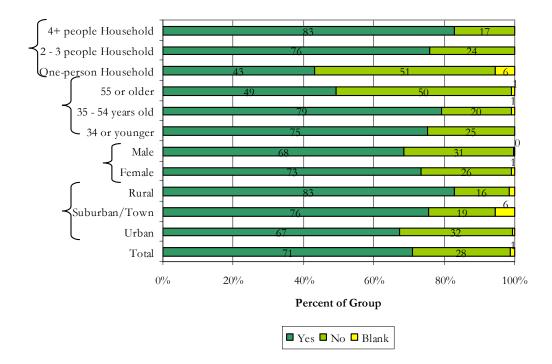
43 percent of people who live alone and 49 percent of non-outdoors people have a pet/animal.

Recall that animal ownership can include pets, hobby livestock, or livestock.

#### Exhibit 32

Pet/Animals Owners-Weighted Data-Demographic

(Do you have a pet/animal?)



Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 4+ person households who have pets/animals.

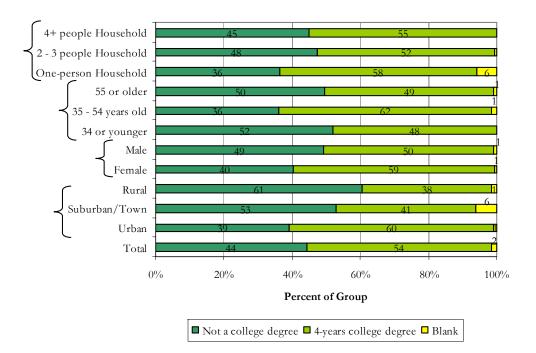
#### URBAN PEOPLE WERE MORE LIKELY THAN RURAL PEOPLE TO HAVE A FOUR-YEAR COLLEGE DEGREE.

Exhibit 33 shows that 60 percent of urban people have a four-year college degree, whereas only 38 percent of rural people and 41 percent of suburban/town people have a four-year college degree.

Middle-aged people (35-54 years old) were more likely than older people (55 or older) to have a four-year college degree (62 and 49 percent respectively). Younger people were most likely to not have a college degree, but some of those people may not have finished a degree yet.

#### Level of Education-Weighted Data-Demographic

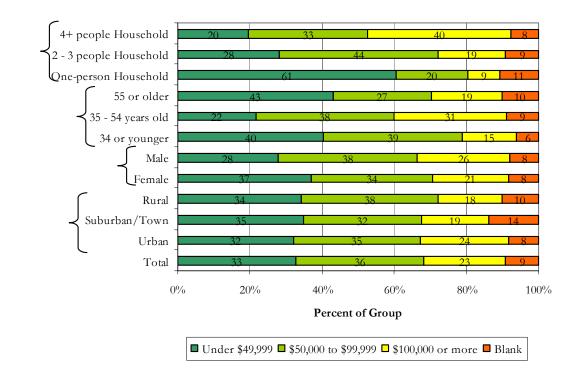
#### (Please indicate the highest level of education that you have completed. Please check one.)



Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 4+ person households who hold college degrees or not.

#### Household Income-Weighted Data-Demographic

### (Please indicate your household's total income before taxes. Please check one. All responses are confidential.)



Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 4+ person households who fall into each income category.

#### 4+ PEOPLE HOUSEHOLDS AND MIDDLE AGE PEOPLE HOUSEHOLD WERE MORE LIKELY TO HAVE AN INCOME GREATER THAN \$100,000.

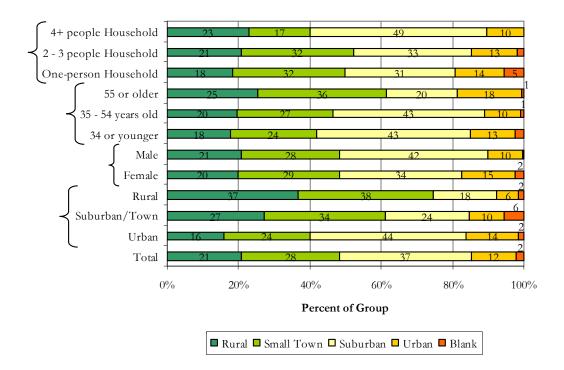
The most likely groups to have an income of more than \$100,000 were 4+ people households, which probably have two or more workers, and middle age people (35-54 years old), which were in their prime earning years.

The most likely group to have incomes less than \$50,000 were people who live alone.

Colorado Division of Wildlife, 2005 Corona Research, Inc.

#### Place Where the Respondents Grew Up-Weighted Data-Demographic

#### (Which of the following best describes the setting in which you grew up? Please check one.)



Interpreting demographic charts: Care must be taken to properly interpret the demographic charts. In each case, the exhibits should be read as the percent of the groups along the left side of the graph that fall into the categories shown in the legend. For example, in the above table, the topmost bar shows the percent of people in 4+ person households who grew up in each setting

#### PEOPLE WERE MORE LIKELY TO LIVE IN A COMMUNITY OF SIMILAR SIZE TO WHERE THEY GREW UP

While there was movement between communities of various size, people tend to remain proportionally more concentrated in areas similar to where they grew up. For example, 75 percent of rural people grew up in a rural location or small town, as opposed to only 40 percent of urban people. 58 percent of suburban/town people grew up in a similar locale.

Other interesting patterns also emerge. For example, people in larger households were more likely to have grown up in suburban settings, and older people (55 and up) were more likely than other age groups to have grown up in a rural setting.

#### APPENDIX: SURVEY INSTRUMENT

The survey instrument is included on the following pages. In some instances, pagination of questions may be altered to allow for inclusion in this report.



June 7, 2005

Dear Colorado Resident,

Your household has been randomly selected to receive a copy of the attached 2005 Colorado Resident Survey on Mountain Lions. The Colorado Division of Wildlife (CDOW) is working with Corona Research, a Colorado-based market research firm, for the purpose of measuring public opinion in Colorado as it pertains to mountain lions and mountain lion management.

By completing the attached survey and returning it in the self-addressed, postage-paid envelope, you will assist the Colorado Division of Wildlife in better understanding the Colorado public's knowledge about, and opinions toward, mountain lions. Information gathered from this survey will be valuable in helping the Division of Wildlife make management decisions.

Regardless of your past experience or knowledge of mountain lion and wildlife issues, your opinions on this subject are very important and we would like to hear from you! We greatly appreciate your time and effort to complete and return the attached survey.

If you have any questions about this survey, you may contact Jerry Apker of the Colorado Division of Wildlife at 719-587-6922 or Kevin Raines of Corona Research at 303-894-8246. Meanwhile, please see the bottom of this page for directions for filling out this questionnaire.

#### Directions for Completing Questionnaire

- Please do <u>not</u> write your name on the survey. Your answers are confidential.
- You will notice a code on this survey that is for recordkeeping only. This does not affect the confidentiality of your responses in any way.
- When responding to questions, please choose answers that are <u>most true for you</u> and most closely reflect your own beliefs and attitudes.
- Please do not look up or research questions before you answer this survey. We are interested in your current thoughts and opinions.
- Please return your questionnaire in the postage-paid business reply envelope by July 16th, 2005.
- This survey is for all citizens of the state! Even if you know little about wildlife, your opinions are needed.

Sincerely,

Jenny A. Apke Jerry Apker

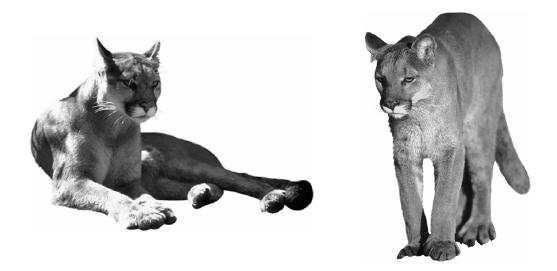
Colorado Division of Wildlife

Kevin Raines Corona Research, Inc.

COLORADO DIVISION OF WILDLIFE, 2005 CORONA RESEARCH, INC. PAGE61

## Before you begin the survey, let us answer two frequently asked questions.

**What is a mountain lion?** This survey will ask a number of questions about mountain lions. A mountain lion is also called a puma or cougar, but we will use only the name "mountain lion" in this survey. Two pictures of mountain lions are shown below.



What do we mean by "recreating in or near mountain lion habitat" or "engaging in outdoor recreation in natural areas"? When we use these terms, we are referring to leisure activities that take place outdoors in areas where it would not be unreasonable to assume that mountain lions exist. Activities could include things such as hiking, mountain biking, jogging on trails, walking on trails, hunting, fishing, or camping. Mountain lions may live in such diverse areas as mountains, foothills, canyons and deserts; they might be found near natural areas, trails and open spaces, camping/hiking/fishing spots, and in rural or suburban open spaces where appropriate habitat is found.

#### Section 1. We would like to begin by asking you some questions about your knowledge of, and experience with, mountain lions in Colorado

1) How common do you think mountain lions are in Colorado? *Please check <u>ONE</u>.* 

Very common	Somewhat common	Somewhat rare
Very rare	They do not exist in Colorado	Unsure

2) For each of the following statements, please indicate to what extent you agree or disagree. For each item below, please circle <u>ONE</u> number.

		Strongly Agree	Moderately Agree	Slightly Agree	Not Sure	Slightly Disagree	Moderately Disagree	Strongly Disagree
А.	Mountain lions are an endangered species in Colorado.	1	2	3	4	5	6	7
В.	Mountain lions are usually found in areas where there are deer.	1	2	3	4	5	6	7
C.	Mountain lions keep the deer population lower.	1	2	3	4	5	6	7
D.	Mountain lions are most active during the daytime.	1	2	3	4	5	6	7

3) Over the past 5 years, do you believe that the mountain lion population in Colorado has...? Please check ONE.

\_\_\_\_\_increased \_\_\_\_\_decreased \_\_\_\_\_stayed about the same \_\_\_\_\_Unsure

4) Please answer each of the following in terms of your own personal experience with mountain lions. *Please check <u>ALL</u> that apply within each category.* 

		Yes, within the past five years	Yes, five years ago or more	No, never
А.	Have you observed a mountain lion in your community? (or within five miles of your home if you live in a rural area.)	1	2	3
B.	Have you observed a mountain lion while recreating?	1	2	3
C.	Have you read or heard of a mountain lion coming into your community? (or within five miles of your home if you live in a rural area.)	1	2	3
D.	Have you read or heard of a mountain lion causing a problem in your community? (or within five miles of your home if you live in a rural area.)	1	2	3

5) To the best of your knowledge, to what extent are each of the following food sources for mountain lions? *For <u>each</u> item below, please circle <u>ONE</u> number.* 

		Major Food Source	Moderate Food Source	Minor Food Source	Not a Food Source	Don't Know
А.	Elk	1	2	3	4	5
В.	Small mammals	1	2	3	4	5
C.	Pets	1	2	3	4	5
D.	Plants and vegetation	1	2	3	4	5
E.	Livestock	1	2	3	4	5
F.	Deer	1	2	3	4	5

## <u>Section 2.</u> In this section, please answer some questions about encountering mountain lions.

 (For this question, consider only wild mountain lions and not mountain lions in zoos or other captivity.) I think that the nearest mountain lions regularly inhabit areas... *Please check <u>ONE</u>.* 

Within 1 mile of where I live	1 to 10 miles from where I live
11 to 25 miles from where I live	26 to 50 miles from where I live
51 to 100 miles from where I live	Are not present within 100 miles of where I live
Not sure	

 Please rank your level of concern about the following eight potential hazards during your outdoor recreational activities in natural areas. For <u>each</u> item below, please circle <u>ONE</u> number.

		Very Concerned	Somewhat Concerned	A little Concerned	Not Concerned	Not Applicable – I don't engage in outdoor recreation
А.	Being attacked by a mountain lion	1	2	3	4	5
В.	Being attacked by a bear	1	2	3	4	5
C.	Being attacked by an animal other than a mountain lion or bear	1	2	3	4	5
D.	Being attacked by a person	1	2	3	4	5
E.	Being hit by lightning	1	2	3	4	5
F.	Being hurt in a serious fall	1	2	3	4	5
G.	Getting lost so you can't find your way back to your vehicle or home.	1	2	3	4	5
Н.	Being hurt by falling material such as an avalanche or falling rocks	1	2	3	4	5

8) What is the <u>likelihood</u> of you or someone in your household ...? For <u>each</u> item below, please circle <u>ONE</u> number.

		High Likelihood	Moderate Likelihood	Slight Likelihood	No Likelihood	Not Sure/ No Opinion	Not Applicable
А.	Encountering a mountain lion during your daily routines.	1	2	3	4	5	
В.	Encountering a mountain lion while you're recreating in or near mountain lion habitat.	1	2	3	4	5	6
C.	Being attacked by a mountain lion during your daily routines.	1	2	3	4	5	
D.	Being attacked by a mountain lion when you're recreating in or near mountain lion habitat.	1	2	3	4	5	6
E.	Your pet(s) being attacked by a mountain lion while at home.	1	2	3	4	5	6
F.	Your pet(s) being attacked by a mountain lion while you and the pet are recreating in or near mountain lion habitat.	1	2	3	4	5	6

		Very Concerned	Somewhat Concerned	A little Concerned	Not Concerned	Not Applicable
А.	Encountering a mountain lion during your daily routines.	1	2	3	4	
В.	Encountering a mountain lion while you're recreating in or near mountain lion habitat.	1	2	3	4	5
C.	Being attacked by a mountain lion during your daily routines.	1	2	3	4	
D.	Being attacked by a mountain lion when you're recreating in or near mountain lion habitat.	1	2	3	4	5
E.	Your pet(s) being attacked by a mountain lion while at home.	1	2	3	4	5
F.	Your pet(s) being attacked by a mountain lion while you and the pet are recreating in or near mountain lion habitat.	1	2	3	4	5

## 9) What is your <u>level of concern</u> of you or someone in your household...? For <u>each</u> item below, please circle <u>ONE</u> number.

## <u>Section 3.</u> In this section, please answer some questions about your general impressions about mountain lions and mountain lion populations in Colorado.

10) For each of the following statements, please indicate to what extent you disagree or agree. *For <u>each</u> item below, please circle <u>ONE</u> number.* 

		Strongly Agree	Moderately Agree	Slightly Agree	Not Sure	Slightly Disagree	Moderately Disagree	Strongly Disagree
А.	The presence of mountain lions is a sign of a healthy environment.	1	2	3	4	5	6	7
В.	I support the legal and regulated hunting of mountain lions.	1	2	3	4	5	6	7
C.	Mountain lion hunting should be banned.	1	2	3	4	5	6	7
D.	It is important to me that future generations have mountain lions.	1	2	3	4	5	6	7
E.	It is important to me to know that mountain lions exist, even if I never see one in the wild.	1	2	3	4	5	6	7

11) Overall, are your feelings toward mountain lions positive, negative, or neutral? *Please check <u>ONE</u>.* 

Positive Neutral Negative Unsure

12) Over the next five years, would you prefer to see the mountain lion population in Colorado...? *Please check ONE.* 

Increase a lot	Increase a little	Stay about the same
Decrease a little	Decrease a lot	Unsure

## <u>Section 4.</u> In the next section, please answer some questions about human coexistence with mountain lions.

13) The list below provides potential reactions of a person who encounters a mountain lion. For each pair, please select the action that <u>you think</u> a person should do if they encounter a mountain lion. *Please <u>CIRCLE ONE</u> action from <u>EACH</u> pair.* 

#### Is it better to:

Run away	OR	Stop and back away slowly
Speak in a firm voice	OR	Be quiet
Raise your arms to look big and threatening	OR	Crouch down to look nonthreatening
Fight back if attacked	OR	Play dead if attacked
Don't do anything that would scare the lion	OR	Try to scare the lion away

- 14) If you are planning to recreate in or near mountain lion habitat, are you <u>more likely</u> to do any of the following than if you were recreating in areas where mountain lions are not known to exist? *Please check <u>ALL</u> that apply.* 
  - \_\_\_\_Not Applicable I don't recreate in or near mountain lion habitat.
  - \_\_\_\_Bring at least one other person with me.
  - \_\_\_\_Intentionally make noise as I walk.
  - \_\_\_Bring a dog that might protect me.
  - \_\_\_\_Keep children within my sight.
  - \_\_\_\_Keep my dog on a leash.
  - Plan my activity for the times of day when I think mountain lions are least active.
  - \_\_\_\_Maintain a heightened awareness of what's happening around me.
  - Bring a sturdy walking stick, pepper spray, or other self-defense weapon.
  - \_\_\_\_None- I am not more likely to do any of the precautions listed above.

	Yes	No	Unsure	Not Applicable
A. Near your home?	1	2	3	
B. While recreating in mountain lion habitat?	1	2	3	4

15) Would you report it to authorities if you saw a mountain lion ...? For <u>each</u> item below, please circle <u>ONE</u> number.

16) For each of the following statements, please indicate to what extent you disagree or agree. *For <u>each</u> item below, please circle <u>ONE</u> number.* 

		Strongly Agree	Moderately Agree	Slightly Agree	Not Sure	Slightly Disagree	Moderately Disagree	Strongly Disagree
А.	People who live in or near mountain lion habitats should be responsible for taking actions to minimize their chance of encountering a mountain lion.	1	2	3	4	5	6	7
В.	Pet owners who live in or near mountain lion habitats should be responsible for taking actions to minimize their pets' chances of encountering a mountain lion.	1	2	3	4	5	6	7
C.	Hobby livestock (i.e. Horse, Llama, Alpaca, etc.) owners who live in or near mountain lion habitats should accept that there is a potential threat to their animals by mountain lions.	1	2	3	4	5	6	7
D.	Hobby livestock (i.e. Horse, Llama, Alpaca, etc.) owners who live in or near mountain lion habitats should be responsible for taking actions to minimize their animals' chances of encountering a mountain lion.	1	2	3	4	5	6	7
Е.	Livestock owners who live in or near mountain lion habitats should accept that there is a potential threat to their animals by mountain lions.	1	2	3	4	5	6	7
F.	Livestock owners who live in	1	2	3	4	5	6	7

or near mountain lion habitats should be responsible for taking actions to minimize their animals' chances of encountering a mountain lion.

## <u>Section 5.</u> Please answer the following questions related to your acceptance of various strategies to deal with specific situations involving mountain lions.

#### Background information for your consideration

When a mountain lion is reported in a residential area, authorities usually approach the situation in one of four ways:

- Authorities might take no immediate action toward the mountain lion, but monitor the situation and educate people in the area about protecting their families and pets from mountain lions. However as the situation develops, the authorities might need to take further action
- Authorities might try to capture and relocate the mountain lion. This approach may be successful in moving the lion to another area, but it has several drawbacks. A relocated lion sometimes dies, sometimes causes problems elsewhere, or sometimes wanders back into the same area where it was caught. If the lion stays away, a new lion normally takes its place.
- Authorities might try to frighten the mountain lion away with rubber bullets or fireworks. This approach may be effective in immediately frightening the lion away, but it has several drawbacks. The lion may be injured. This approach may have only a temporary effect, in that the lion may return to the same area. If the lion stays away, a new lion normally takes its place.
- Authorities might destroy the mountain lion. This approach prevents further encounters with this individual mountain lion, but it has several drawbacks. It results in the loss of the mountain lion, and normally a new mountain lion will move into the empty territory.

17)	Someone reports seeing a mount	ain lion in your resi	idential area.	Would it be acceptable or
	unacceptable to you if authorities	? For <u>each</u> item	n below, plea	se circle <u>ONE</u> number.

		Highly Acceptable	Moderately Acceptable	Slightly Acceptable	Not Sure	Slightly Unacceptable	Moderately Unacceptable	Highly Unacceptable
А.	Monitored the situation but took no immediate action toward the mountain lion?	1	2	3	4	5	6	7
В.	Tried to capture and relocate the lion?	1	2	3	4	5	6	7
C.	Tried to frighten the lion away with rubber bullets or fireworks?	1	2	3	4	5	6	7
D.	Destroyed the lion?	1	2	3	4	5	6	7

18) A mountain lion has come into your residential area and killed a pet.. Would it be acceptable or unacceptable to you if authorities...? *For <u>each</u> item below, please circle <u>ONE</u> <i>number.* 

		Highly Acceptable	Moderately Acceptable	Slightly Acceptable	Not Sure	Slightly Unacceptable	Moderately Unacceptable	Highly Unacceptable	
E.	Monitored the situation but took no immediate action toward the mountain lion?	1	2	3	4	5	6	7	
F.	Tried to capture and relocate the lion?	1	2	3	4	5	6	7	
G.	Tried to frighten the lion away with rubber bullets or fireworks?	1	2	3	4	5	6	7	
Н.	Destroyed the lion?	1	2	3	4	5	6	7	

19) A mountain lion has come into your residential area and attacked and injured/killed a person. Would it be acceptable or unacceptable to you if authorities...? *For <u>each</u> item below, please circle <u>ONE</u> number.* 

		Highly Acceptable	Moderately Acceptable	Slightly Acceptable	Not Sure	Slightly Unacceptable	Moderately Unacceptable	Highly Unacceptable
I.	Monitored the situation but took no immediate action toward the mountain lion?	1	2	3	4	5	6	7
J.	Tried to capture and relocate the lion?	1	2	3	4	5	6	7
K.	Tried to frighten the lion away with rubber bullets or fireworks?	1	2	3	4	5	6	7
L.	Destroyed the lion?	1	2	3	4	5	6	7

20) A mountain lion has attacked and injured/killed a person who was recreating outdoors in or near mountain lion habitat. Would it be acceptable or unacceptable to you if authorities...? *For <u>each</u> item below, please circle <u>ONE</u> number.* 

		Highly Acceptable	Moderately Acceptable	Slightly Acceptable	Not Sure	Slightly Unacceptable	Moderately Unacceptable	Highly Unacceptable
M.	Monitored the situation but took no immediate action toward the mountain lion?	1	2	3	4	5	6	7
N.	Tried to capture and relocate the lion?	1	2	3	4	5	6	7
О.	Tried to frighten the lion away with rubber bullets or fireworks?	1	2	3	4	5	6	7
Р.	Destroyed the lion?	1	2	3	4	5	6	7

## <u>Section 6.</u> Please answer the following questions related to your level of acceptance of policies and approaches toward mountain lions in Colorado.

Please indicate the extent to which you would support or oppose the following approaches to reduce confrontations between humans and mountain lions in locations where there is a history of human/mountain lion encounters. For each item below, please circle ONE number.

		Strongly Support	Support	Neither Support Nor Oppose	Oppose	Strongly Oppose	Not sure
А.	Reduce the number of mountain lions through legal and regulated hunting.	1	2	3	4	5	6
В.	Provide information to humans about mountain lion habits and behaviors.	1	2	3	4	5	6
C.	Ask that people take some responsibility to reduce the risk of encounters to themselves, their families, pets, etc.	1	2	3	4	5	6
D.	Take no actions at all.	1	2	3	4	5	6
E.	Reduce mountain lions' food sources near areas of human development.	1	2	3	4	5	6
F.	Limit human access/use in areas where there is a history of human/mountain lion encounters.	1	2	3	4	5	6

22) The following represent potential mountain lion management goals for Colorado agencies. To what extent do you support or oppose them? For <u>each</u> item below, please circle <u>ONE</u> number

		Strongly Support	Support	Neither Support Nor Oppose	Oppose	Strongly Oppose	Not sure
А.	Maintain opportunities to hunt mountain lions	1	2	3	4	5	6
В.	Take action toward individual mountain lions that are dangerous to people	1	2	3	4	5	6
C.	Conserve mountain lions as a part of Colorado's ecology	1	2	3	4	5	6
D.	Require or expect people who live in mountain lion habitat to learn about mountain lions and take reasonable actions to minimize their risk	1	2	3	4	5	6
E.	Require or expect local livestock owners in mountain lion habitat to learn about mountain lions and take reasonable actions to minimize the risk to their livestock	1	2	3	4	5	6
F.	Support and/or conduct research to learn more about mountain lion populations	1	2	3	4	5	6
G.	Work with local governments to plan development to minimize human/wildlife conflicts	1	2	3	4	5	6
H.	Allow people to kill mountain lions that are threatening their livestock	1	2	3	4	5	6
I.	Allow people to kill mountain lions that are threatening them or their families	1	2	3	4	5	6

J.	Allow people to kill mountain lions that are threatening their pets	1	2	3	4	5	6
K.	Reduce mountain lion populations in areas where mountain lions have	1	2	3	4	5	6
	been involved in recurring conflicts with people	1	2	5	4	5	0
L.	Work with other agencies to restrict human activities where mountain lions	1	2	3	4	5	6
	have recently been unusually active	1	4	5	-	5	0

## <u>Section 7.</u> Next, we would like to ask some questions about your preferences for obtaining information about mountain lions.

23) During the past 12 months, have you seen or heard any mountain-lion related information from the following sources? *Please check <u>ALL</u> that apply.* 

Brochure	Trailhead or interpretive sign	Internet/Website
Family member or friend	Outdoor or sporting good store	Radio
Newspaper	Recreational club or organization	Television
<u>Conservation</u> , wildlife, or hunting organization	Other	None of the above

24) If you wanted to learn more about mountain lions, how would you try to get that information? *Please check <u>ALL</u> that apply.* 

\_\_\_\_Contact a federal government agency such as the Park Service, Forest Service, etc.

\_\_\_\_Contact a state government agency such as the Division of Wildlife

- \_\_\_\_Contact a local government agency such as a county office
- \_\_\_\_Ask friends or family
- \_\_\_\_Contact an organization that is involved in wildlife or outdoor issues
- <u>Contact a recreational club or organization</u>
- \_\_\_\_Contact a Nature Center
- \_\_\_\_Search on the Internet/Find a website
- \_\_\_\_Ask someone at an outdoor or sporting good store
- \_\_\_\_Do research at a library
- \_\_\_\_Purchase information at a bookstore
- \_\_\_Other \_\_\_\_\_
- \_\_\_\_None of the above

25) Please rate each of the following types of mountain lion-related information in terms of its importance to the general public in Colorado. For <u>each</u> item below, please circle <u>ONE</u> number.

		Very Important	Moderately Important	Slightly Important	Not Important	Don't Know
А.	Information about what to do if you see a mountain lion	1	2	3	4	5
В.	Information on mountain lion population and population distributions in Colorado	1	2	3	4	5
C.	Information on mountain lion ecology and biology	1	2	3	4	5
D.	Information about how to prevent encounters with mountain lions	1	2	3	4	5

# <u>Section 8.</u> The final section of this survey includes questions to learn about your interests and background. Please remember that your survey responses are confidential and we will use this information for analysis purposes only.

26) During the past 12 months, how often have you engaged in each of the following recreation activities? *For <u>each</u> item, please circle ONE number* 

		12 times or more	4 to 11 times	2 to 3 times	Once	Zero (I have done it more than a year ago.)	Zero (I have never done It)
А.	Biking or Cycling	1	2	3	4	5	6
В.	Camping	1	2	3	4	5	6
C.	Fishing	1	2	3	4	5	6
D.	Hiking/ Backpacking	1	2	3	4	5	6
E.	Hunting	1	2	3	4	5	6
F.	Water Recreation (Boating, Kayaking, etc)	1	2	3	4	5	6
G.	Bird Watching	1	2	3	4	5	6
H.	Riding ATVs or OHVs (All-Terrain Vehicles or Off-Highway Vehicles)	1	2	3	4	5	6

I.	Horseback Riding	1	2	3	4	5	6		
J.	Wildlife Viewing (Other than birds)	1	2	3	4	5	6		
27)	27) Do you consider yourself to be a hunter? <i>Please check <u>ONE</u>.</i>								
	Yes	No	t	Jnsure					
28)	What is your zip code?			_					
29)	) What is your gender? <i>Please check <u>ONE</u></i> .								
	Female	Male							
30)	How old are you? Pleas	se check <u>ON</u>	<u>E</u> category						
	17 or Younger	18-24	2	5-34	35-44				
	45-54	55-64	6	5 or over					
31)	Counting yourself, how categories. <i>Please enteranswer is zero.</i>								
	17 or Younger		18 to 2	25		26 to 34			
	35 to 44	—	45 to .	54		55 to 64			
	65 to 74		75 or	Older					
32)	What types of pets or an Dog Cat Livestock (cattle, sh Hobby Livestock (h Other	neep, etc.) orse, llamas, al		se check <u>Ai</u>	<u>LL that app</u>	<u>ly</u> .			
	I have no pets or an	imals							

33) Please indicate the highest level of education that you have completed. *Please check* <u>ONE</u>.

9 <sup>th</sup> grade or less	Some high school but no diploma or GED			
High School Diploma or GED	Some college, but no degree			
Associate degree	4-Year College Degree			

\_\_\_\_Graduate or Professional Degree

34) Please indicate your household's total 2004 income before taxes. *Please check <u>ONE</u>*. (All responses are confidential.)

<u>\$0 to \$10,000</u>	\$10,000 to \$19,999	\$20,000 to \$29,999
\$30,000 to \$39,999	<u>\$40,000 to</u>	\$50,000 to \$74,999
\$75,000 to \$99,999	\$100,000 to \$149,999	\$150,000 or more

35) Which of the following best describes the setting in which you grew up? Please check <u>ONE</u>.

Rural	Small Town	Suburban	Urban
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#### Thank you for your time. Your opinions will greatly assist the Colorado Division of Wildlife