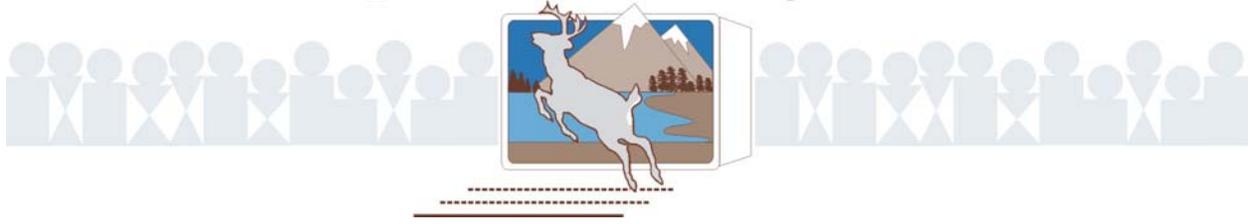


# Responsive Management



## **PENNSYLVANIA RESIDENTS' OPINIONS ON AND ATTITUDES TOWARD BLACK BEARS**

### **EXECUTIVE SUMMARY**

**Conducted for the Pennsylvania Game Commission**

**by Responsive Management**

**2008**

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## **EXECUTIVE SUMMARY**

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## **EXECUTIVE SUMMARY**

### **INTRODUCTION AND METHODOLOGY**

This study was conducted for the Pennsylvania Game Commission (the Commission) to determine Pennsylvanians' opinions on black bears in general, black bear management, and the hunting of black bears. The study entailed a telephone survey of Pennsylvania residents 18 years of age and older.

For the survey, telephones were selected as the preferred sampling medium because of the universality of telephone ownership. The telephone survey questionnaire was developed cooperatively by Responsive Management and the Commission. Responsive Management conducted a pre-test of the questionnaire to ensure proper wording, flow, and logic in the survey. Interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. The survey was conducted in November and December 2008. The software used for data collection was Questionnaire Programming Language.

The study sought to obtain data for individual Wildlife Management Units (WMUs) within Pennsylvania, as well as regional data, with each region consisting of several WMUs. In all, there are 22 WMUs in Pennsylvania that were amalgamated into 5 regions (the main text contains a map of the WMUs and regions), as listed below:

- Western Region: WMUs 1A, 1B, 2A, and 2B
- North Central Region: WMUs 2F, 2G, 3A, and 4D
- South Central Region: WMUs 2C, 2D, 2E, 4A, and 4B
- Northeastern Region: WMUs 3B, 3C, 3D, 4C, and 4E
- Southeastern Region: WMUs 5A, 5B, 5C, and 5D

The sampling plan sought to obtain enough interviews for meaningful data for the WMUs in the North Central, South Central, and Northeastern Regions, which are the regions with the highest bear density. The sampling plan obtained data for the Western and Southeastern Regions as wholes, not broken down into WMUs. The sampling plan obtained at least 270 completed interviews in the Western and Southeastern Regions and 270 interviews in each WMU in the

North Central, South Central, and Northeastern Regions. In all, the researchers obtained 4,411 completed interviews.

For the survey, each telephone number called had to be positively identified within its appropriate WMU. Because the WMU boundaries, which follow roadways and physical land features such as streams, cross county lines (i.e., a single county could be in multiple WMUs), the telephone sample could not be obtained on a county-by-county basis. Instead, the sample had to be obtained for smaller geographical units that do not cross WMU boundaries. The researchers determined that the most appropriate geographical units that could be used were census groups.

The researchers contracted a GIS specialist at Virginia Tech to analyze the WMU map and determine which census groups made up each WMU. The GIS specialist returned a file that identified which census groups made up each WMU, and the sample was then obtained from SSI for the appropriate census groups. The interviewers then called the telephone numbers in the various census groups until the appropriate number of completed interviews were obtained for each WMU. This produced a stratified sample.

The analysis of data was performed using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management. The results were weighted so that the proportions of the sample among the WMUs matched their proportions in the regions, and the regions were weighted to match the distribution of the population statewide, and the weighting included a match of gender and age in the WMUs and regions.

#### **ATTITUDES TOWARD BLACK BEARS IN GENERAL AND OPINIONS ON THE SIZE OF THE BLACK BEAR POPULATION**

- The majority of Pennsylvania residents (59%) are of the opinion that the black bear population in their county should remain the same size as it currently is. Otherwise, the

percentage who think the bear population should increase (12%) is the same as the percentage who think it should decrease (12%).

- Those who want to see the black bear population in their county increase most commonly want it to increase just a moderate amount. On the other hand, those who want to see the population decrease most commonly want it to decrease a lot.
- Another question in the survey that pertains to the black bear population and residents' comfort level with black bears asked residents to indicate which of six statements best describes their feelings about black bears. The statements were in a scale, running from complete comfort regarding black bears in their yard ("I want to see and have black bears in my yard"), through comfort having black bears in their neighborhood (I want to see black bears in my neighborhood, but not in my yard"), and so on through community, township, and county, to the other end of the continuum: complete aversion to black bears in their county ("I feel uncomfortable about having black bears even in my county"). It appears that most residents want some distance between themselves and black bears: 15% are comfortable with having black bears in their yard; 24% do not want them in their yard but are comfortable having them in their township; 40% say that they want black bears in their county, but not in their township or city; and 21% are uncomfortable having black bears in their county at all.

## **OPINIONS ON THE HUNTING OF BLACK BEARS AND BLACK BEAR MANAGEMENT**

- The large majority of residents (79%) agree that black bear populations should be managed to control their population size in Pennsylvania; meanwhile, 14% oppose.
- The survey asked residents to rate the Commission's management of black bears in Pennsylvania. The results are positive: 63% rate the Commission's management as excellent or good (but mostly good rather than excellent), while only 13% rate the Commission as fair or poor (mostly fair). Nearly a quarter cannot say.

- In a related question, the large majority of Pennsylvania residents (70%) support the legal, regulated hunting of black bears, while 23% oppose.
  - Common reasons for supporting the hunting of black bears include that hunting is the best way to control black bear populations, that population control is needed, that the respondent simply is not opposed to hunting in general, and that hunting black bears in Pennsylvania is a tradition. Note that the feeling that black bears threaten human safety is not a particularly important reason (only 7% of those who support hunting of black bears gave this reason for supporting black bear hunting).
  - The most common reason for opposing the hunting of black bears is a general opposition to hunting—the top reason by far. Other common reasons (but well below the general opposition to hunting) include the respondent’s feeling that other methods of population control are better, an opposition to *trophy* hunting, and that the black bear population is too low.
  
- In follow-up to the question about support or opposition to black bear hunting were five questions about support or opposition to various types of black bear hunting activities, such as hunting over bait or hunting with dogs. These questions found much lower support for various black bear hunting activities than for black bear hunting in general. While 70% support black bear hunting in general, all other permutations of black bear hunting have no more than a third in support: hunting limited to archery equipment (33%), hunting black bear in spring (22%), allowing a training season in which to chase bears with dogs but not hunt (18%), hunting black bear with dogs (13%), and hunting using bait (12%). Conversely, all *except* black bear hunting in general and black bear hunting limited to archery equipment had 69% or more in *opposition*, with the most opposition to hunting using bait (84% oppose).

#### **NUISANCE PROBLEMS AND BLACK BEARS AND THE PENNSYLVANIA GAME COMMISSION’S RESPONSE TO NUISANCE PROBLEMS**

- The survey asked about nuisance bears: 5% of Pennsylvania residents have had property damage and/or other problems with black bears at their primary home within the past 2 years.
  - The most common problems are with birdfeeders (50% of those who had problems cited this) or garbage cans/dumpsters (40%). Other less common problems include agricultural

damage, entry of garage/home/porch, a feeling of being threatened (without actual physical damage), and damage to a building without entry.

- Of those who had experienced black bear problems, 19% contacted the Commission to report the problem. The most common response or service they received from the Commission was simply advice over the telephone at the time of reporting. Other responses or services include having a Commission employee attempt to remove the problem bear or having a Commission employee visit the home (or business) to discuss the problem. Note that 20% of those who reported a black bear problem indicated that the Commission was of no help. However, about half of the people who contacted the Commission (51%) were satisfied with the response or service they received from the Commission, while 30% were dissatisfied (the remainder gave a neutral response).
- The survey asked four questions about residents' support or opposition to non-lethal ways (and in which situations) to control nuisance black bears. For each method/situation to control nuisance black bears, a large majority support it. The most support is for capturing and relocating a bear that is causing property damage (97% support). There is also overwhelming support for using non-lethal repellents (e.g., pepper spray, rubber ammunition) (91%), capturing and relocating a bear that has attempted to enter or has actually entered a building (88%), and capturing and relocating a bear that has caused agricultural damage (87%). Note that most support is *strong* support (in fact, for each, a large majority *strongly* support, ranging from 65% to 84%).
- For the situations above, the survey asked follow-up questions regarding the number of times that the nuisance bear behavior should be documented *before* the decision is made to kill the bear. (Note that the follow-up discussed *killing* the bear rather than using non-lethal means; in other words, the follow-up was for the *situation*, not the *method* for addressing the nuisance bear.) In looking at the results together, Pennsylvania residents show more tolerance for agricultural damage and residential/campground damage than for attempting to enter or actually entering a building. For instance, 39% say the bear should not be killed for causing agricultural damage, 35% say the bear should not be killed for causing residential/campground damage, but only 27% say the bear should not be killed for attempting to enter or actually entering a building. Also, in looking at the

mean number of times the behavior should be documented before the bear is killed, the mean for agricultural damage is 3.31 times, the mean for residential/campground damage is 2.93, but the mean for attempting to enter or actually entering a building is only 1.73 times.

## **KNOWLEDGE OF BLACK BEARS AND SOURCES OF INFORMATION ABOUT BLACK BEARS**

- Self-professed knowledge about black bears among Pennsylvania residents is low: 27% say that they know a great deal or moderate amount (in fact, only 3% say that they know a great deal), while 73% say that they know a little or nothing.
  
- The top information sources about black bears among Pennsylvania residents include newspapers (30% say they get information about black bears from this source), television programs (23%), and family/friends (23%). Magazines (13%) and the Internet (12%) are also common sources.
  - The survey also asked about Commission sources of information, as well. Although most Pennsylvania residents do *not* get information about black bears from the Commission, there are three important Commission sources: *Game News Magazine*, the Commission website, and Commission news releases.
  
- Just less than half of Pennsylvania residents (46%) express interest in receiving information about black bears from the Commission. Topics of most interest (from those who are interested in information) include black bear biology, Pennsylvania's black bear management plan, black bear hunting, addressing black bear nuisance problems, what to do if you encounter a black bear, and who to contact for black bear problems.

## **RESPONDENTS' HUNTING ACTIVITIES**

- The researchers were interested in the species, including black bear, that residents had hunted. So as to not ask non-hunters a question that would not apply to them, the survey first determined who had hunted within the past 2 years (17% had hunted or gone hunting with somebody in that timeframe). Then the survey asked about species they had hunted in the previous 2 years in Pennsylvania. White-tailed deer was the most commonly hunted species

by far (85% of those who had hunted in the previous 2 years). This was followed by six species hunted by at least a fifth of active hunters: wild turkey (39%), squirrel (36%), pheasant (34%), ruffed grouse (31%), rabbit (26%), and black bear (22%).