

WILDLIFE AND ENVIRONMENTAL ATTITUDES OF SOUTH DAKOTA CITIZENS: A 2012 SURVEY



Progress Report (1-2012)



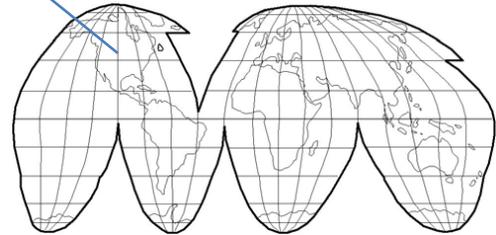
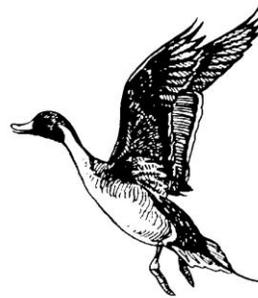
prepared for

South Dakota Game, Fish, and Parks

Division of Wildlife

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This progress report was produced for the South Dakota Game, Fish, and Parks Department as part of their revision of the South Dakota Wildlife Action Plan. This progress report provides a basic description of the survey results. Additional reports will provide more in-depth analyses.

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Overall Project Title: Revision of South Dakota Comprehensive Wildlife Conservation Plan

The South Dakota Comprehensive Wildlife Conservation Plan, hereafter called the South Dakota Wildlife Action Plan (WAP), received approval from the National Advisory Acceptance Team on May 11, 2006, indicating that each of the 8 required elements was satisfactorily addressed. Although revision at least every 10 years is required, SD Game, Fish and Parks (SDGFP) committed to review and revise the plan 5 years following its approval. A revised plan is needed for SDGFP to continue to be eligible to receive State Wildlife Grants (SWG) allocations.

Project Title: Understanding South Dakota Citizens – Wildlife Values

Human Dimensions Component: The human dimensions component addresses the eighth essential element in the WAP, *'each state's provisions to provide the necessary public participation in the development, revisions, and implementation of its strategy.'* The South Dakota WAP included a summary of a number of public opinion studies measuring wildlife values and other opinions concerning various environmental issues. This project conducted a statewide survey (using a traditional mail survey and a special e-mail panel of South Dakota citizens) measuring the wildlife value orientations of citizens and opinions related to various wildlife and environmental issues relative to South Dakota. The mail survey will be used to identify trends as well as mapping current environmental attitudes, providing a better understanding of South Dakota citizens.

Project Objectives:

- (1) Measure South Dakota Citizens' wildlife value orientations
- (2) Determine the relationship between wildlife value orientations and specific attitudes towards various wildlife & environmental issues
- (3) Measure trends in wildlife and environmental attitudes
- (4) Compare results from the two methods of data collection (e-mail panel vs. mail survey)

This progress report provides a basic description of the mail survey results. Additional reports will provide more in-depth analyses.

Methods

The mail survey instruments (11 by 8½ booklets) were developed with input from the South Dakota Game, Fish and Parks (SDGFP) staff. Two versions of the questionnaires were developed to both maximize the number of questions that were asked while minimizing the overall length of the survey (Appendix A). Both survey instruments begin with the same set of six general questions about fish and wildlife management in South Dakota (page 2). Questions 1 through 5 have been used in previous surveys conducted by SDGFP. Both survey instruments contain the same set of 14 questions used to measure respondents Wildlife Value Orientation (WVO) (page 3).

Pages 4 and 5 were different for the two questionnaires. Survey Version 1 had five questions related to prairie ecosystems, five questions related to bats, four questions related to mountain lions, and five miscellaneous questions about some specific wildlife management issues. Survey Version 2 had five questions related to climate change, four questions related to energy development in South Dakota, six questions related to management of rare non-game species versus game animals/fish, and questions measuring the importance of five functions of wetlands. Pages 6 and 7 of both survey instruments measured hunting, fishing and wildlife viewing participation and selected demographic variables were measured on page 8.

Two lists of randomly selected names and addresses of South Dakota residents (N=1,200 each) aged 18 and older were purchased from Survey Sampling International (SSI). Questionnaires were mailed early January 2012 along with a cover letter and full-sized, postage-paid business return envelope (Appendix A). A post-card reminder was mailed mid-February and a second mailing of the questionnaire, return envelope and different cover letter were mailed in early March (Appendix A).

A subset of questions from the two versions of the survey instruments were used to develop an Internet-based survey using SurveyMonkey (Appendix B). The survey was designed to take about 20 minutes. An e-mail panel was purchased from SurveyMonkey. SurveyMonkey uses the survey instrument that you develop to conduct the survey, providing you with the data when the survey is completed. Participants in this web-based survey are volunteers who have agreed to be members of e-mail panels who are periodically offered opportunities to participate in various web-based surveys. Results from this portion of the study will be presented in a separate report.

Results

The return rate (49%) was relatively good for a general public survey (Figure 1). A total of 54 responses were received from the e-mail panel, web-based survey. SurveyMonkey did not have a very large number of e-mail panel volunteers with South Dakota residence. The mail survey under-sampled females and younger age groups (ages: 18-34 and 35-49). A combination of sex-age weights were applied to the mail survey data to adjust for a potential sex-age bias (all 2012 survey data reported in the tables are adjusted by the sex-age weights) (Appendix C).

<u>Parameter</u>	<u>Survey Version 1</u>	<u>Survey Version 2</u>	<u>Combined</u>
Initial Sample Size	1,200	1,200	2,400
Undeliverable	50	44	94
Undeliverable Rate	4.2%	3.7%	3.9%
Final Sample Size	1,150	1,156	2,306
Blank Returns	47	50	97
Usable Returns	574	564	1,138
Usable Return Rate	49.9%	48.9%	49.3%

Figure 1. Return rates for the mail survey of South Dakota residents conducted in 2012.

General Description of the Mail Survey Results

Section 1: *General Questions about Fish and Wildlife Management in South Dakota.*

Most South Dakota residents agree that it is very important that South Dakota conserves/protects as much fish and wildlife as possible where appropriate (Table 1.1). Also, most South Dakota residents feel that healthy fish and wildlife populations are very important to the economy and well-being of South Dakota residents (Table 1.2). Mean attitude has been relatively consistent over the period of measurement (1997 – 2012) for these two variables (Figures 2 and 3). Most people agreed with the statement, “the diversity of wildlife in an area is a sign of the quality of the natural environment” (Table 1.3 and Figure 4). About two-thirds of the general public, excluding people who did not have an opinion, rated GFP’s efforts to conserve and protect the diversity of fish and wildlife of South Dakota as “just about the right amount” (Table 1.4 and Figure 5).

Figure 2. Mean importance: How important is it to you that South Dakota conserves/protects as much fish and wildlife as possible where appropriate?

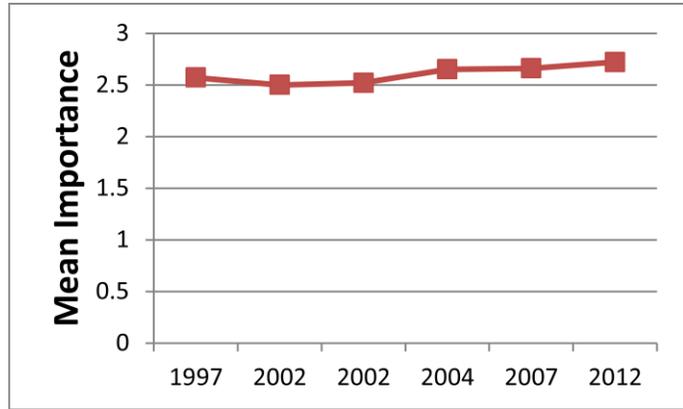


Figure 3. Mean importance: How important do you think healthy fish and wildlife populations are to the economy and well-being of South Dakota residents?

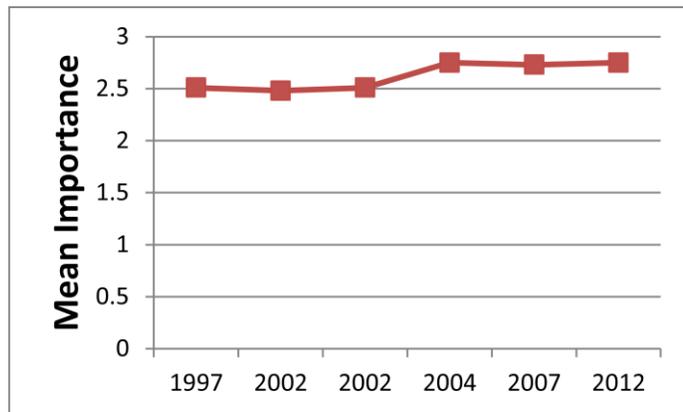


Figure 4. Attitude: Percent agreement/disagreement with the statement, “The diversity of wildlife in an area is a sign of the quality of the natural environment”.

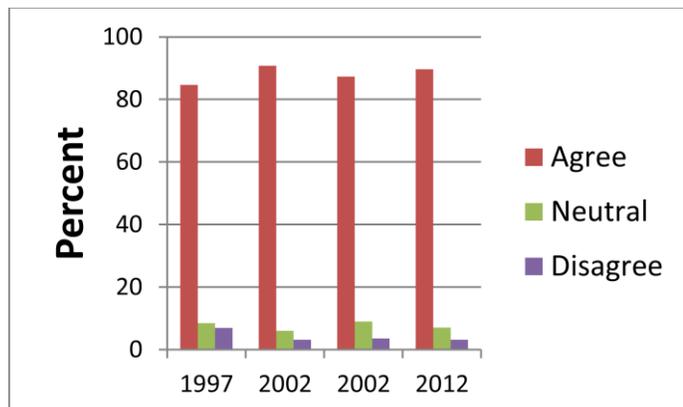
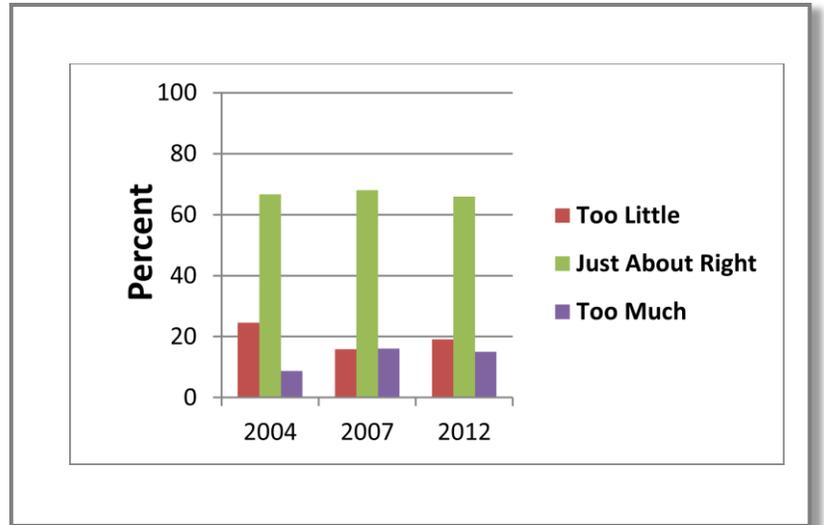


Figure 5. South Dakota residents' rating of GFP's efforts to conserve and protect the diversity of fish and wildlife of South Dakota.



Compared to other places where respondents could consider living most (80%) rated life in South Dakota as “better” and only 8% felt that life was “worse” compared to other places they could consider living (Table 1.5 and Figure 6). About 80% of South Dakota residents reported that fish and wildlife contributes to a high “quality of life” for themselves and less than 2% reported that fish and wildlife detracts from their “quality of life” (Table 1.6 and Figure 7).

Figure 6. South Dakota residents' rating of living in South Dakota compared to other places they could consider living.

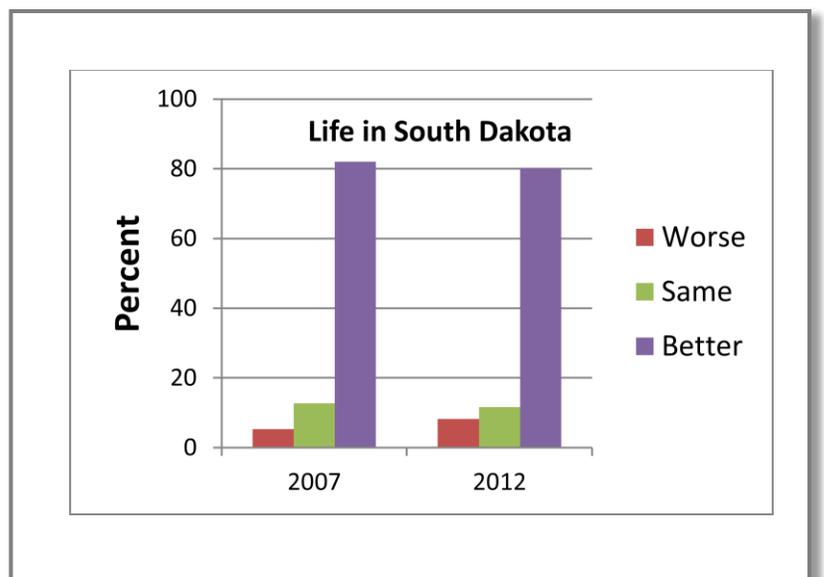
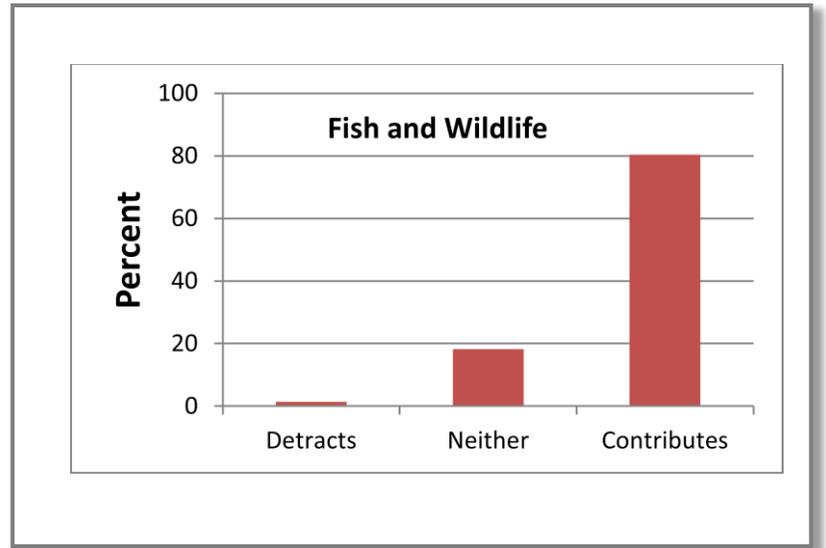


Figure 7. South Dakota residents' rating of the role of fish and wildlife as a factor of their "quality of living" in South Dakota (2012).



Section 2: Wildlife Value Orientations (WVO). Wildlife value orientations are used to classify South Dakota residents in four groups based on their basic beliefs about wildlife and wildlife management (Figure 8). South Dakota residents' WVO measured in 2004 (Teel, et al., 2005) is relatively similar to their WVO measured in 2012 (Table 2.1 and Figure 9). Black Hills residents' WVO measured in 2008 (Gigliotti, et al., 2009) is relatively similar to their WVO measured in 2012 (Table 2.1 and Figure 10). The wildlife value orientations model will be evaluated for its utility in predicting attitudes towards specific wildlife species and management issues, and some general attitudes towards wildlife (Project Objective #2).

UTILITARIAN (53.6%). Believe that wildlife should be used and managed primarily for human benefit. Individuals with a strong utilitarian orientation are more likely to prioritize human well-being over wildlife in their attitudes and behaviors. They are also more likely to find justification for treatment of wildlife in utilitarian terms and to rate actions that result in death or harm to wildlife as being acceptable.

MUTUALIST (15.3%). View wildlife as capable of living in relationships of trust with humans, as if part of an extended family, and deserving of rights and caring. Those with a strong mutualism orientation are less likely to support actions resulting in death or harm to wildlife, more likely to engage in welfare-enhancing behaviors for individual wildlife (e.g., feeding), and more likely to view wildlife in human terms (e.g., Bambi).

PLURALIST (20.9%). Hold both a mutualism and a utilitarian value orientation toward wildlife. Which of the orientations plays a role is dependent upon the given situation. For certain issues, Pluralists are likely to respond in a manner similar to that of Utilitarians, whereas for other issues they may behave more like Mutualists.

DISTANCED (10.2%). Do not hold either a utilitarian or a mutualism orientation. As their label suggests, they tend to be less interested in wildlife and wildlife related issues. The Distanced type is also more likely than the other value types to express fear, or concern for safety, while in the outdoors due to the possibility of negative encounters with wildlife (e.g., risk of being attacked or contracting a disease).

Figure 8. Descriptions of the four wildlife value orientations (measured in 2012 for SD residents).

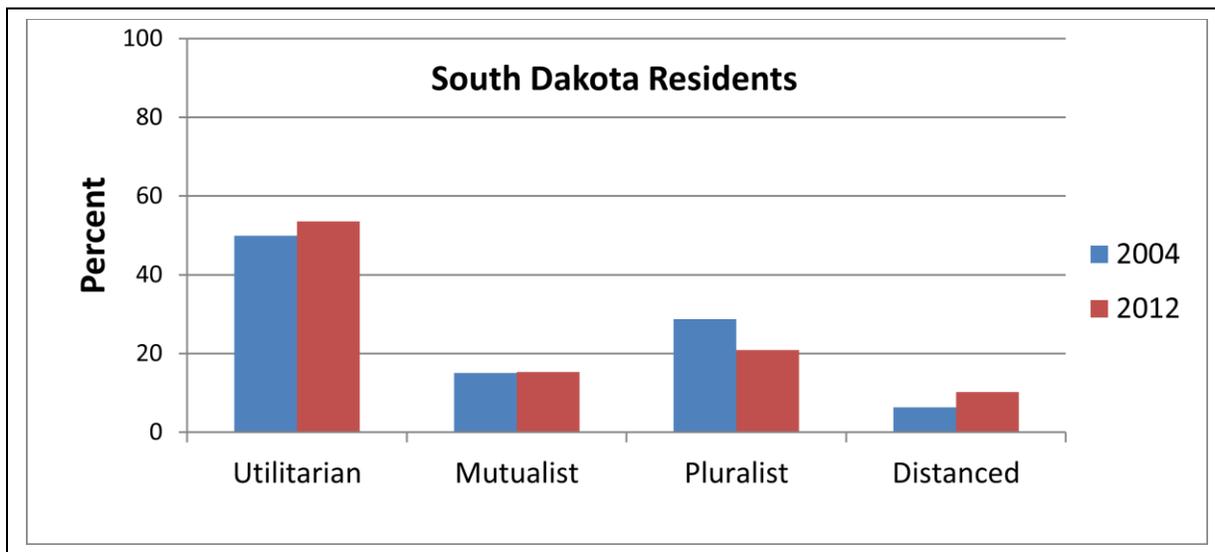


Figure 9. South Dakota residents' wildlife value orientations measured in 2004 and 2012.

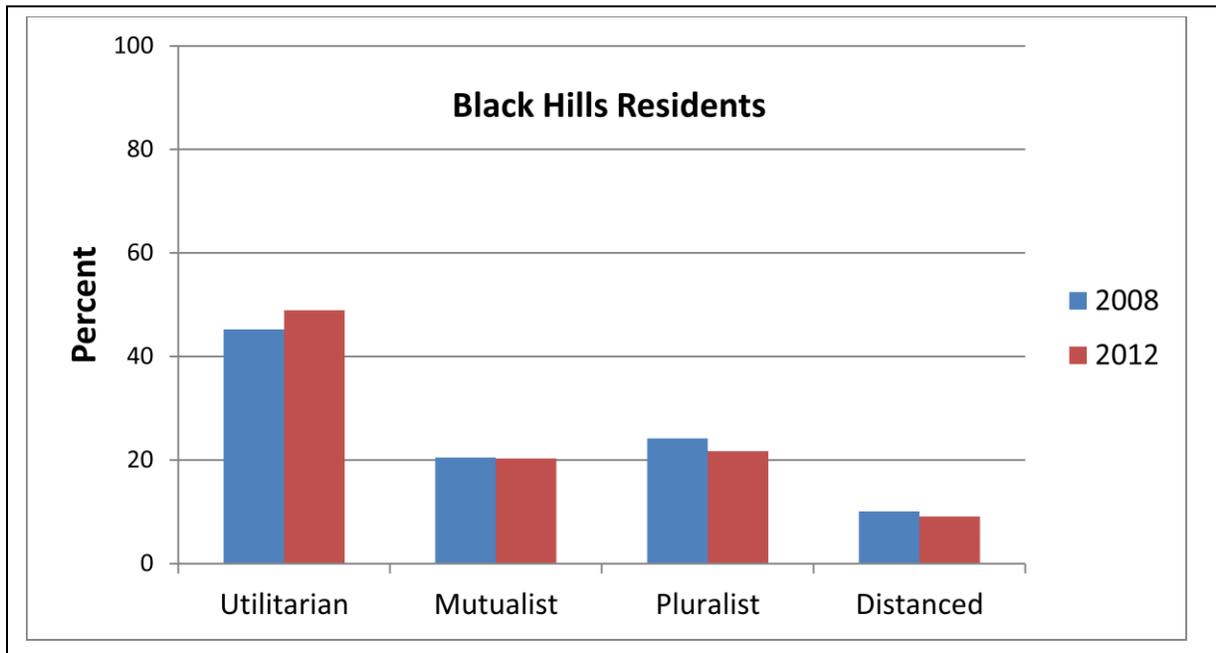


Figure 10. Black Hills residents’ wildlife value orientations measured in 2008 and 2012.

Section 3: *Prairie Ecosystem Issues.*¹ Five questions on this topic were included in the survey questionnaire along with the following information:

Prairie wildlife conservation faces different challenges in different regions of South Dakota. In eastern South Dakota, where most of the prairie has been converted to cropland, one of the challenges is finding and conserving large enough landscapes of prairie vegetation and its associated wildlife. In western South Dakota, where there still are large tracts of native grasslands, the current challenges are more related to the specific needs of certain species like black-footed ferrets, swift fox, black-tailed prairie dogs, and sage grouse.

Four of the five questions were also measured in surveys of South Dakota residents conducted in 2002 and 2004. Most South Dakota residents agreed (81%) with the statement, “Maintaining a healthy native prairie ecosystem in South Dakota is important to me” (Table 3.1 and Figure 11). However, fewer agreed (52%) with the statement, “Prairie dogs are an important component of

¹ Questions in Survey Version 1 (Appendix A).

native ecosystems and need some degree of protection” (Table 3.2 and Figure 12). About 25% of the survey respondents agreed (50% disagreed) with the statement, “Prairie dogs are a destructive agricultural pest that should be eliminated from South Dakota” (Table 3.3 and Figure 13). Most South Dakota residents (78%) would support using some money from hunting license fees for projects designed to conserve and enhance native prairie ecosystems and their associated wildlife (Table 3.4 and Figure 14). About 52% of the respondents reported some level of concern about the accelerated conversion of native prairie habitat (Table 3.5 and Figure 15).

Figure 11. Attitude: Percent agreement/disagreement with the statement, “Maintaining a healthy native prairie ecosystem in South Dakota is important to me.”

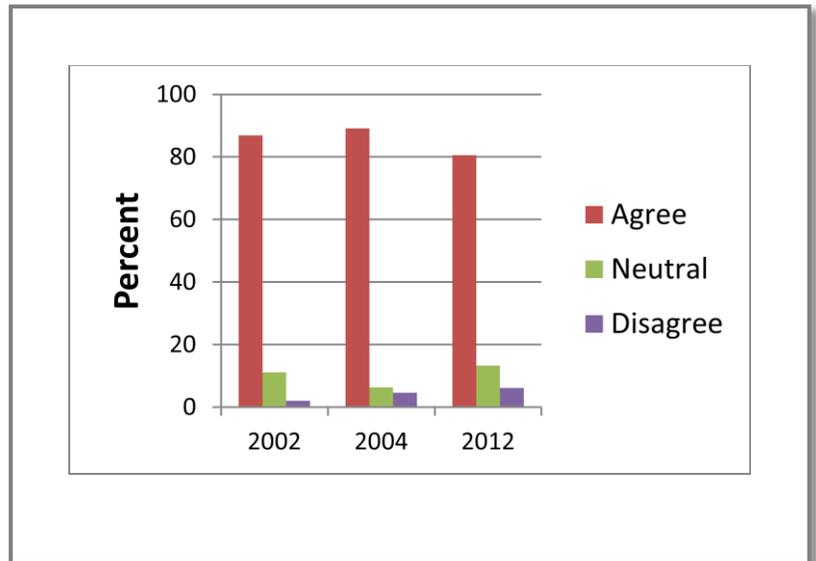


Figure 12. Attitude: Percent agreement/disagreement with the statement, “Prairie dogs are an important component of native prairie ecosystems and need some degree of protection”.

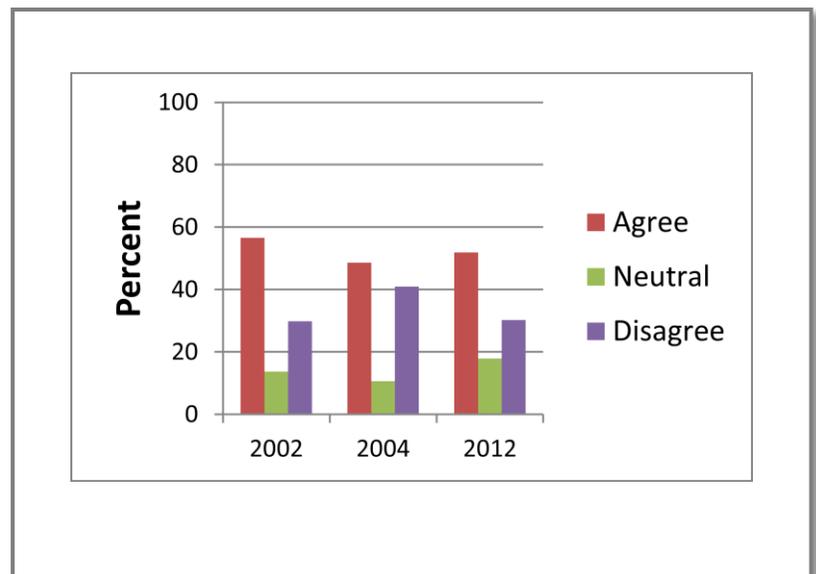


Figure 13. Attitude: Percent agreement/disagreement with the statement, “Prairie dogs are a destructive agricultural pest that should be eliminated from South Dakota.”

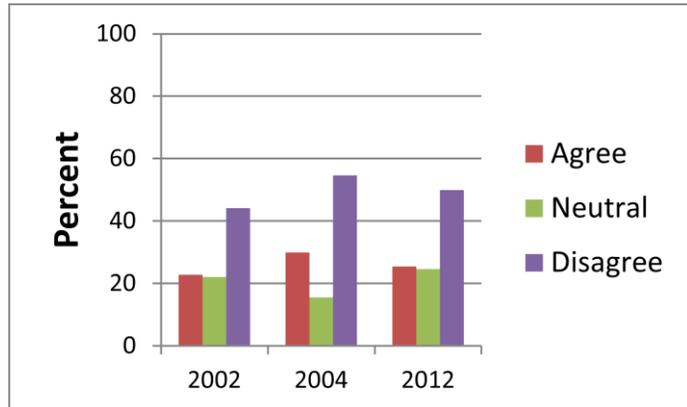


Figure 14. Attitude: Percent agreement/disagreement with the statement, “I support using some money from hunting license fees for projects designed to conserve and enhance native prairie ecosystems and their associated wildlife”.

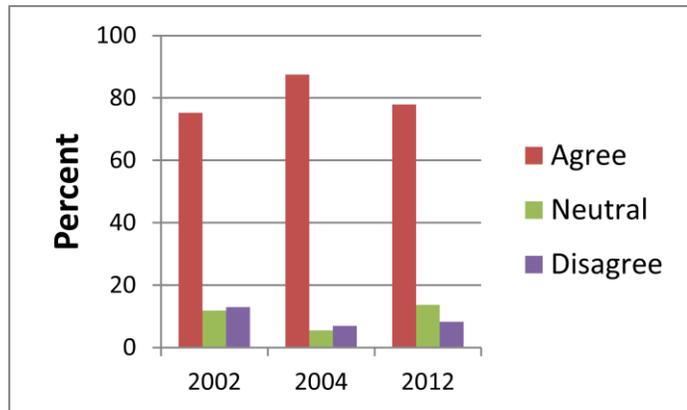
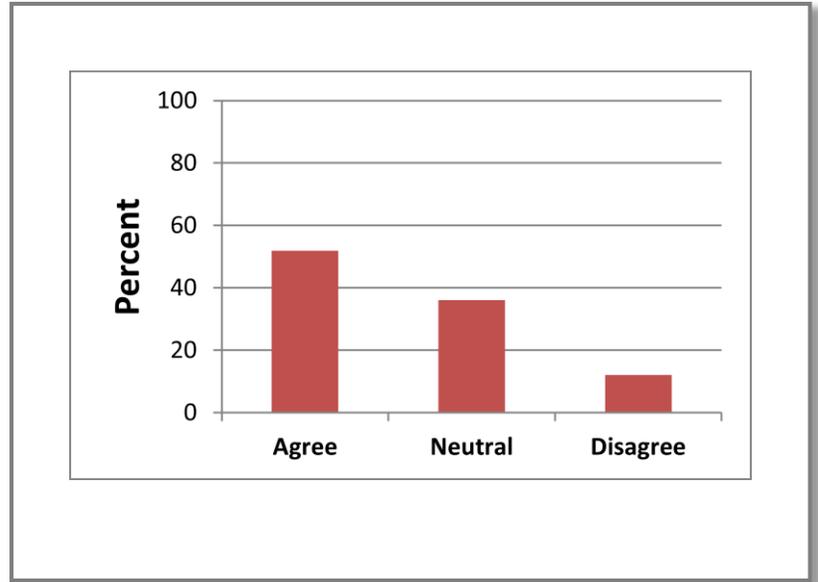


Figure 15. Attitude: Percent agreement/disagreement with the statement, “I am concerned about the accelerated conversion of native prairie habitat” (2012).



Section 4: *Bats in South Dakota.*² Five questions on this topic were included in the survey questionnaire along with the following information:

Thirteen species of bats are found in South Dakota. Bats roost (rest/sleep) in trees, buildings, caves, mines, and crevices. Bats play an important role in nature because they feed on insects. Places where bats feed and roost are vulnerable to disturbance and destruction.

Four of the five questions were also measured in surveys of South Dakota residents conducted in 2004. More South Dakota residents agreed (56%) than disagreed (14%) with the statement, “Maintaining healthy populations and diversity of bat species in South Dakota is important to me” (Table 4.1 and Figure 16). Only about 21% of South Dakota residents believed that bats posed an unacceptable health risk to people (Table 4.2 and Figure 17) and many residents (46%) felt bats are important and should have some legal protection from harm (Table 4.3 and Figure 18). About 35% of South Dakota residents said they would enjoy having bats living and feeding near their house (Table 4.4 and Figure 19) and many reported being concerned about the impact of diseases, such as white-nose syndrome, on bat populations (Table 4.5 and Figure 20).

² Questions in Survey Version 1 (Appendix A).

Figure 16. Attitude: Percent agreement/disagreement with the statement, “Maintaining healthy populations and diversity of bat species in South Dakota is important to me”.

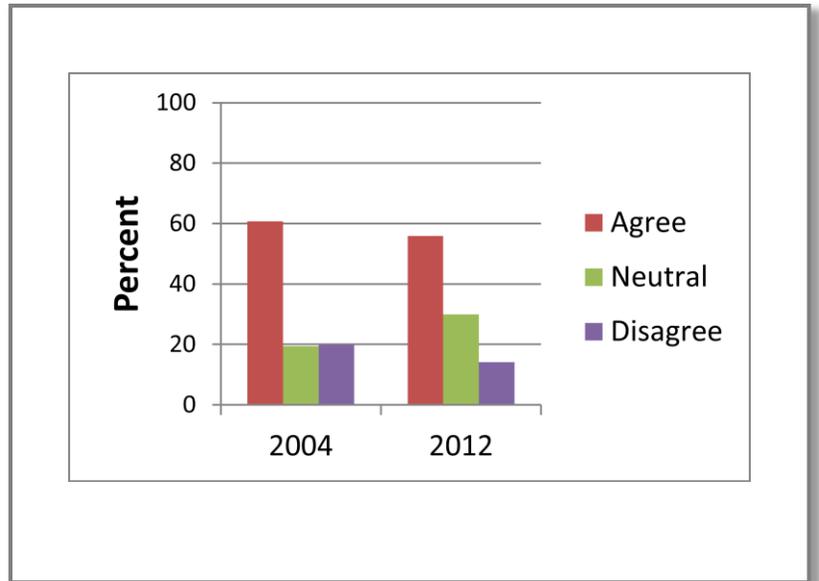


Figure 17. Attitude: Percent agreement/disagreement with the statement, “Bats pose an unacceptable health risk to people”.

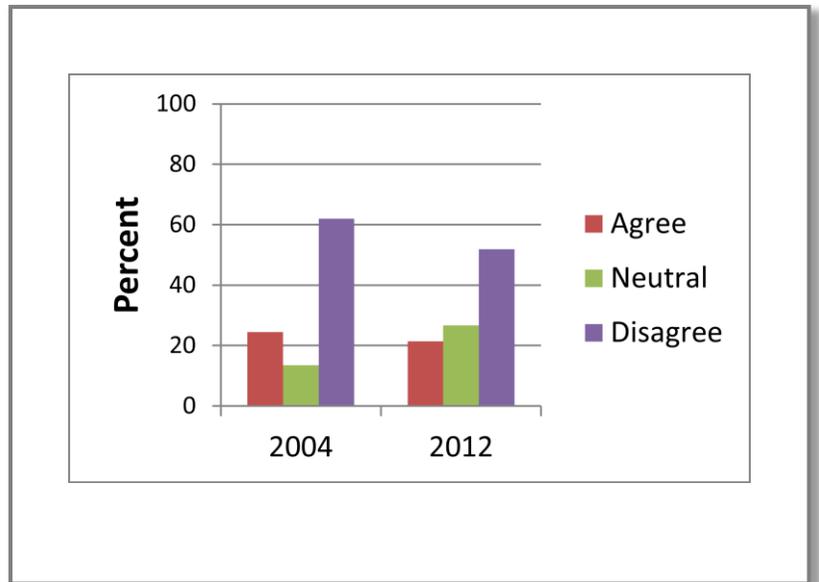


Figure 18. Attitude: Percent agreement/disagreement with the statement, “Bats are important and should have some legal protection from harm”.

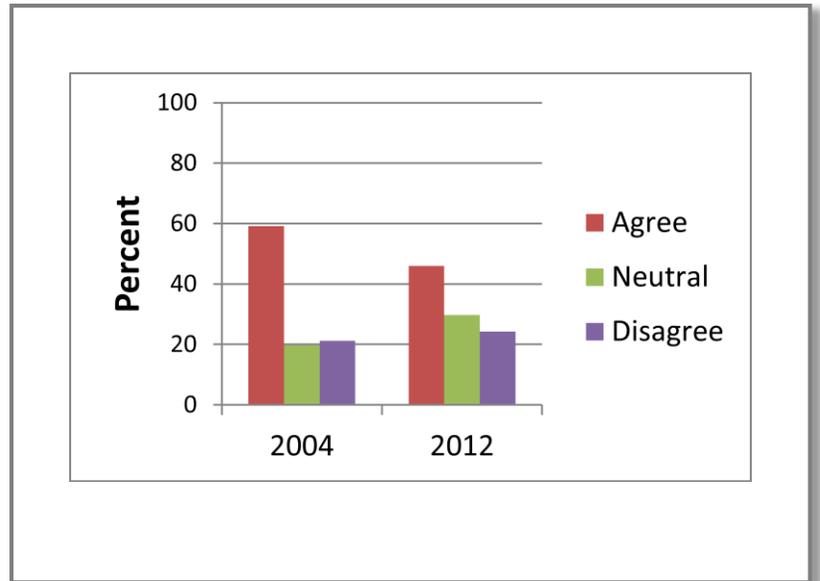


Figure 19. Attitude: Percent agreement/disagreement with the statement, “I would enjoy having bats living and feeding near my house”.

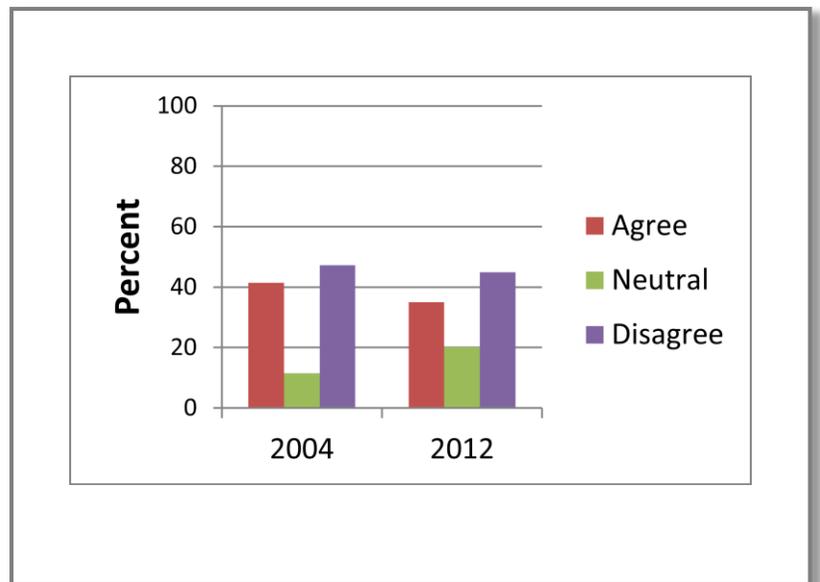
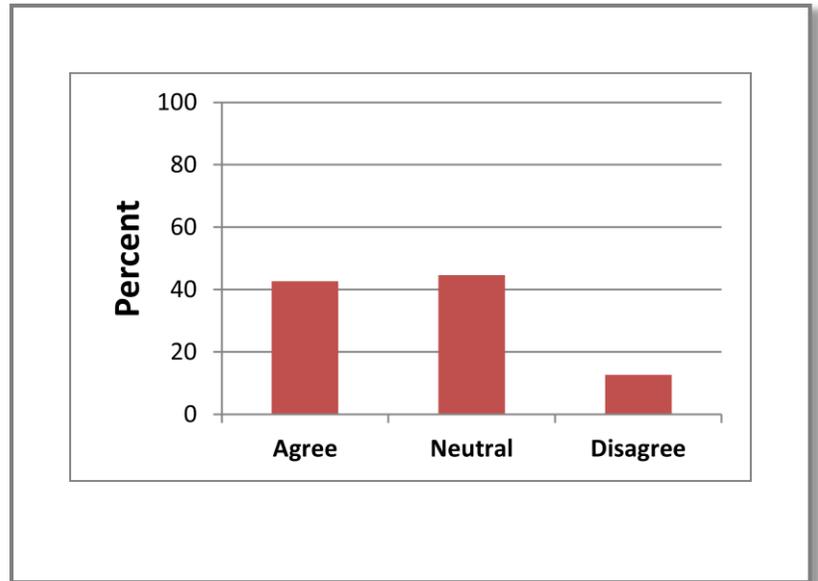


Figure 20. Attitude: Percent agreement/disagreement with the statement, “I am concerned about the impact of diseases, such as white-nose syndrome, on bat populations” (2012).



Section 5: Mountain Lions in South Dakota.³ Four questions on this topic were included in the survey questionnaire. More South Dakota residents agreed (48%) than disagreed (26%) with the statement, “Having a healthy, viable population of mountain lions in South Dakota is important to me” (Table 5.1 and Figure 21). More South Dakota residents were concerned about mountain lions killing too many game animals than the percent not concerned (45% vs. 33%) in 2012, which represents a rather large change in attitude since measured in 2002 (Table 5.2 and Figure 22). However, most South Dakota residents (57%) did not feel that having mountain lions in South Dakota was too dangerous a risk to people, which was very similar to the measurement of this attitude in 2002 (Table 5.3 and Figure 23). Overall, most South Dakota residents (71%) favor a regulated mountain lion hunting season in South Dakota compared to 9% opposed, which was similar to the percent who would favor a mountain lion hunting season when measured in 2002 (Table 5.4 and Figure 24). A percent of Black Hills residents favoring a mountain lion hunting season increased from 63% in 2008 to 75% in 2012 (Table 5.4 and Figure 25).

³ Questions in Survey Version 1 (Appendix A).

Figure 21. Attitude: Percent agreement/disagreement with the statement, “Having a healthy, viable population of mountain lions in South Dakota is important to me”.

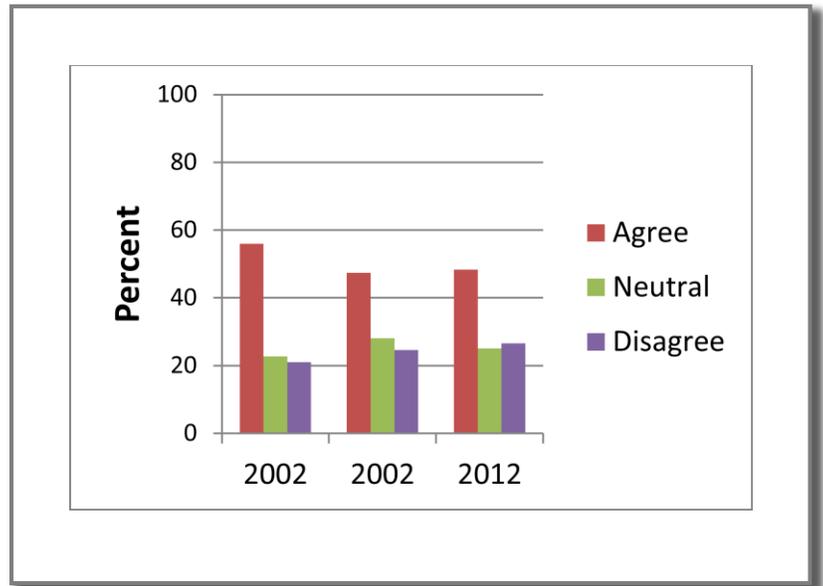


Figure 22. Attitude: Percent agreement/disagreement with the statement, “I am concerned about mountain lions killing too many game (hunted) animals”.

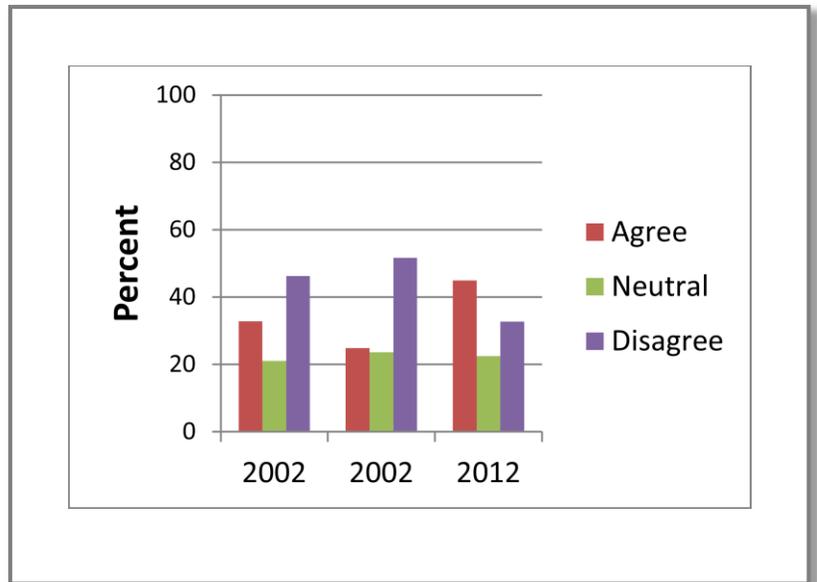


Figure 23. Attitude: Percent agreement/disagreement with the statement, “Having any mountain lions in South Dakota is too dangerous a risk to people”.

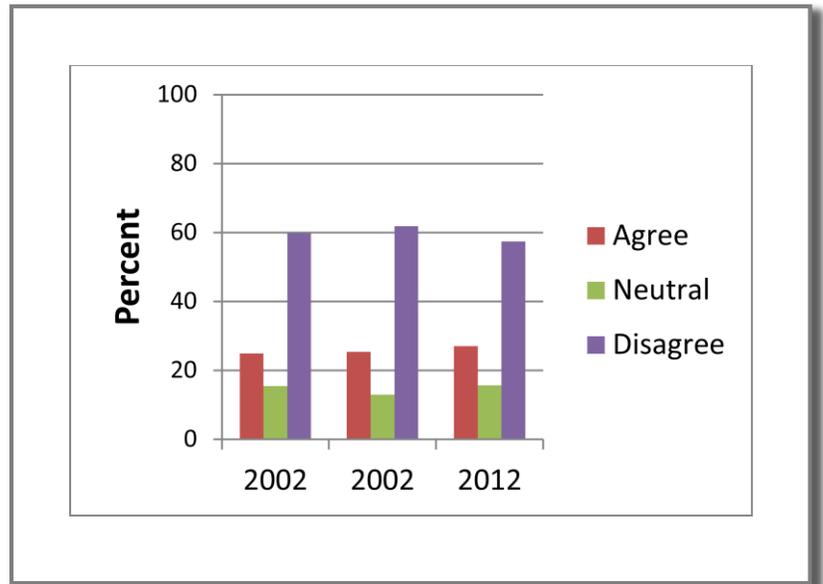


Figure 24. Attitude: Percent of South Dakota residents who oppose/favor having regulated mountain lion hunting seasons in South Dakota (2012).

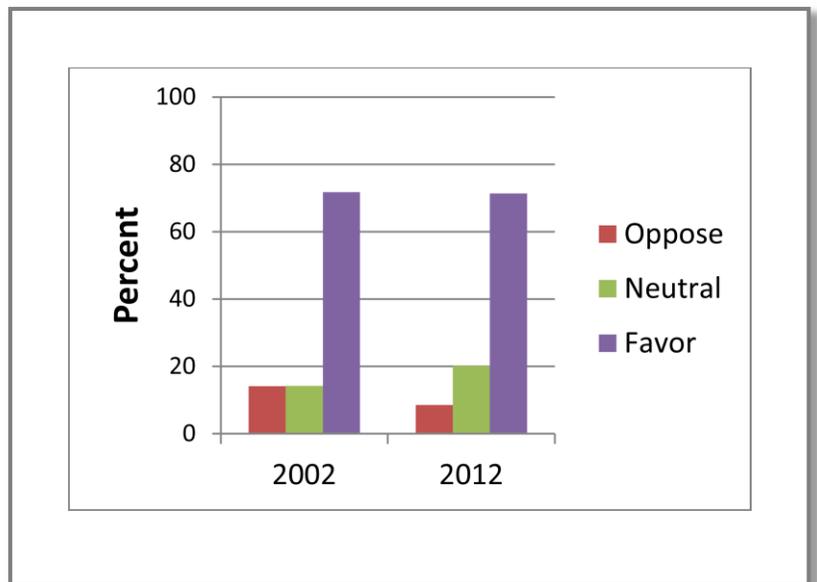
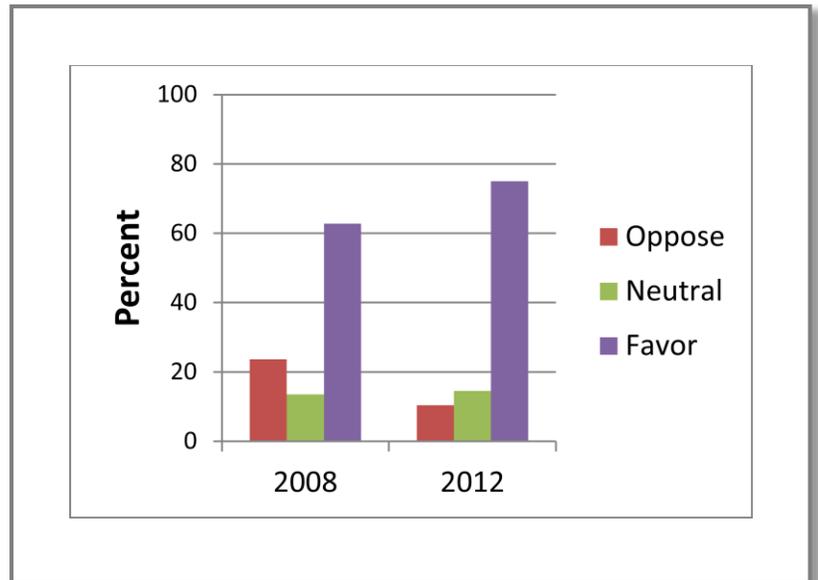


Figure 25. Attitude: Percent of Black Hills residents who oppose/favor having regulated mountain lion hunting seasons in South Dakota.



Section 6: Wildlife Management Issues: Rare Non-game vs. Game Animals/Fish.⁴ Six questions on this topic were included in the survey questionnaire along with the following information:

Some wildlife management issues place wildlife managers in conflicting roles of making decisions to increase numbers of rare species while also providing satisfactory numbers of game animals and game fish for hunters and anglers; below are a couple of examples. We are interested in learning **your views**.

South Dakota residents' attitudes were about evenly split on whether or not they would be concerned about River Otters taking too many game fish if River Otter populations were to increase (Table 6.1 and Figure 26). However, most South Dakota residents would support (50% support vs. 11% opposed) releasing River Otters into suitable habitats in South Dakota (Table 6.2 and Figure 27).

Most South Dakota residents would support (47% support vs. 10% opposed) efforts by SDGFP to increase Osprey numbers in South Dakota (Table 6.3 and Figure 27). About 21% of South Dakota residents reported they would be concerned about Osprey taking too many game fish if Osprey populations were to increase (Table 6.4 and Figure 26).

⁴ Questions in Survey Version 2 (Appendix A).

Figure 26. Attitude: Percent agreement/disagreement with the statement, “I would be concerned about River Otters / Osprey taking too many fish if their populations were to increase” (2012).

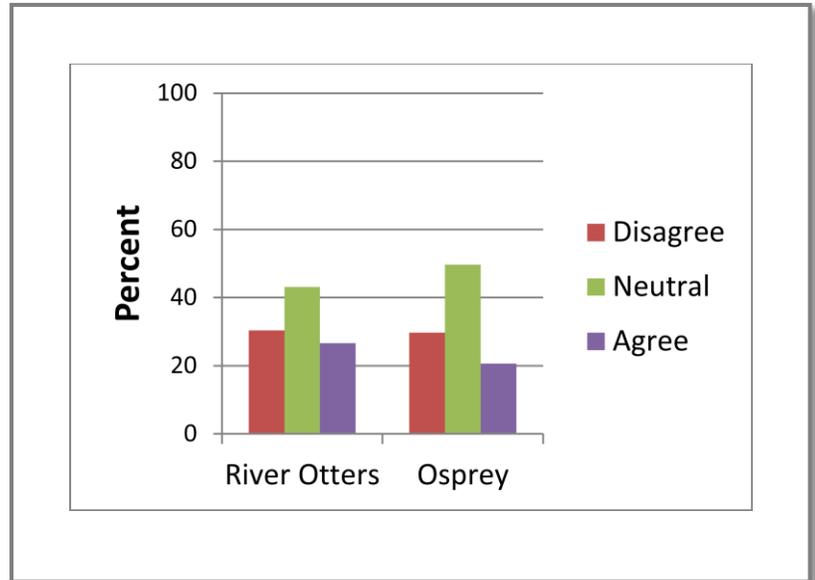
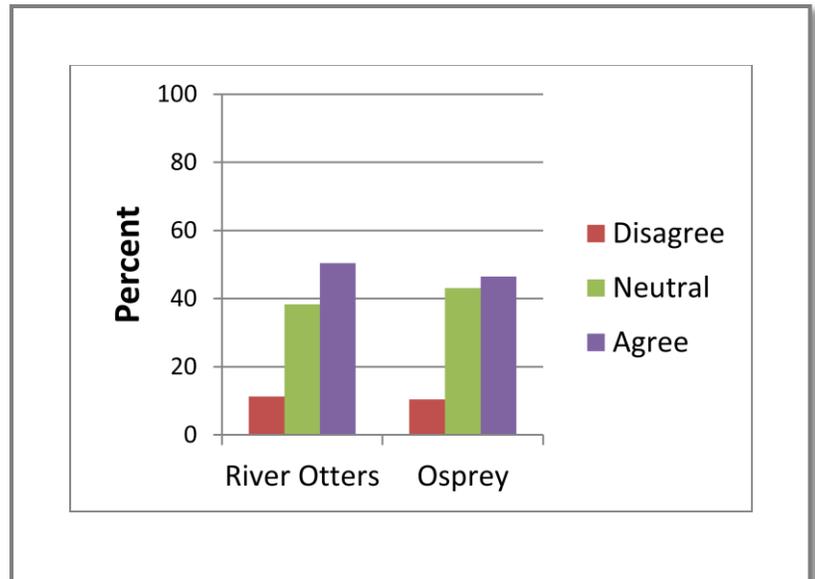


Figure 27. Attitude: Percent agreement/disagreement with the statements, “I would support releasing River Otters into suitable habitats in South,” and “I support efforts by GFP to increase Osprey numbers in South Dakota” (2012).



South Dakota residents’ attitudes were about evenly split regarding the statement, “The Missouri River should not be managed for threatened or endangered species such as terns and plovers, if it would in any way decrease game fish populations (Table 6.5 and Figure 28). In general, most South Dakota residents (54%) favored a “balanced approach” on wildlife management decisions regarding game animals/fish versus rare wildlife species with the remaining residents about split between favoring game animals/fish and rare wildlife species (Table 6.6 and Figure 29).

Figure 28. Attitude: Percent agreement/disagreement with the statements, “The Missouri River should not be managed for threatened or endangered species, such as terns and plovers, if it would in any way decrease game fish populations” (2012).

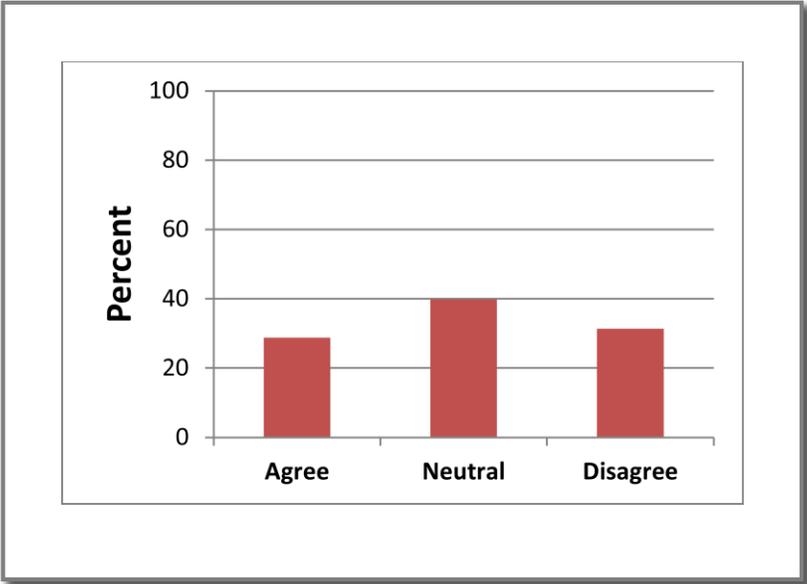
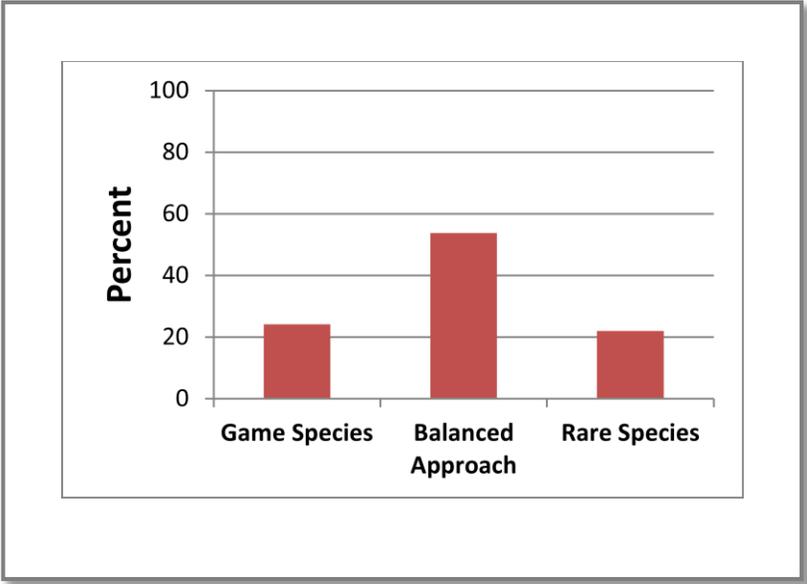


Figure 29. Attitude: Percent response to the question, “In general, should wildlife management decisions favor game animals/fish OR rare wildlife species?” (2012)



Section 7: Climate Change.⁵ Five questions on this topic were included in the survey questionnaire along with the following information:

There has been a lot of talk recently about climate change (global warming) and its potential impacts. Climate change refers to changes occurring over approximately the past 100 years, not changes in climate over geological time periods. We are interested in learning **your views about climate change.**

A little over half (56%) of the South Dakota residents reported that they “believe that climate change is currently affecting South Dakota” (Table 7.1 and Figure 30). A higher percent of Black Hills residents (63%) reported believing that climate change is currently affecting South Dakota and the percent of Black Hills residents believing this has increased 17% since measured in 2008.

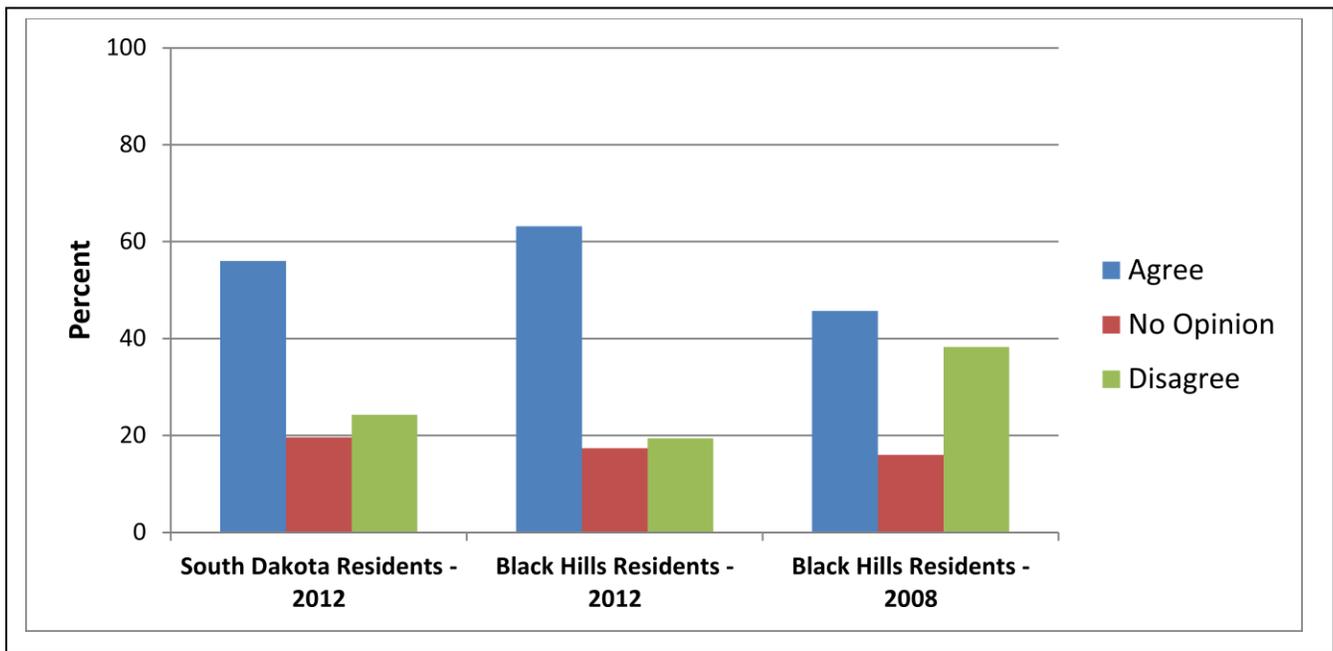


Figure 30. South Dakota and Black Hills residents’ belief that climate change is currently affecting South Dakota.

⁵ Questions in Survey Version 2 (Appendix A).

Almost half (48%) of the South Dakota residents feel that “climate change is a serious threat that requires changes in current life styles” and about 61% would “support regulations to reduce carbon emissions to address climate change” (Tables 7.3 and 7.4 and Figure 31). Also, over half (52%) believe that climate change will result in negative impacts on wildlife populations in South Dakota (Table 7.5 and Figure 32).

Beliefs about the causes of climate change ranged from all natural causes to being totally due to human activities (about 12% did not have an opinion) (Table 7.6 and Figure 33). Summarized attitudes showed about an equal split with about one-third believing climate change was more related to natural causes, one-third about half-and-half natural causes and human activities and one-third more related to human activities (Table 7.6 and Figure 34).

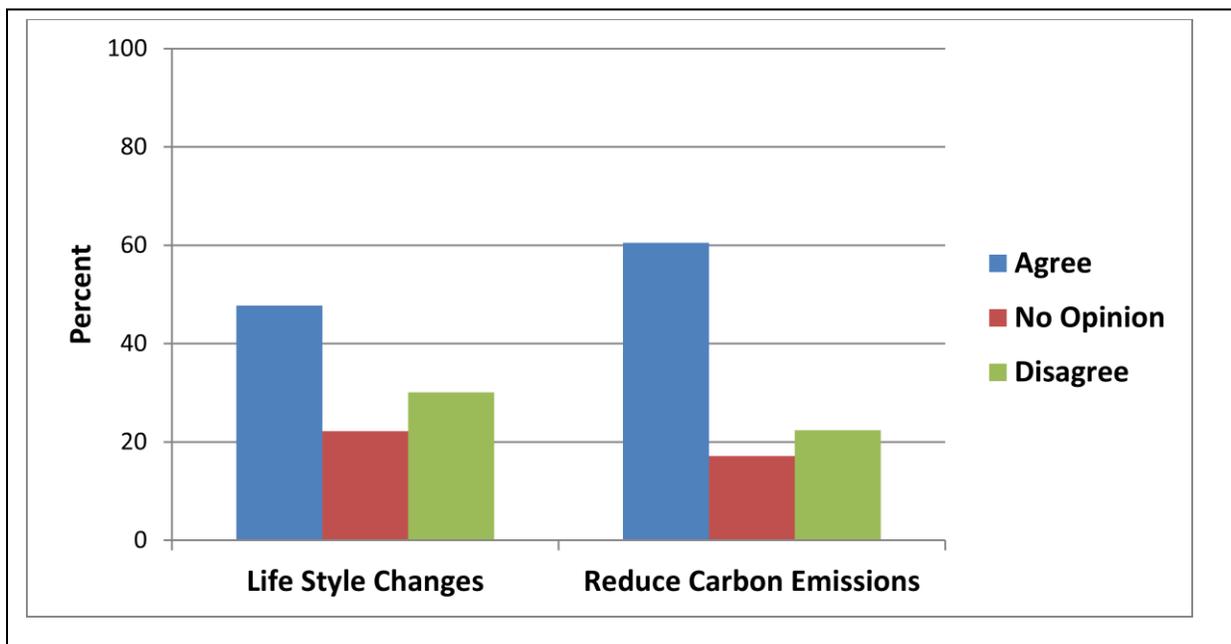


Figure 31. South Dakotas residents’ belief that “climate change is a serious threat that requires changes in current life style” and their support of “regulations to reduce carbon emissions to address climate change”.

Figure 32. Attitude: Percent agreement/disagreement with the statement, “I don’t believe that climate change will result in any negative impacts on wildlife populations in South Dakota” (2012).

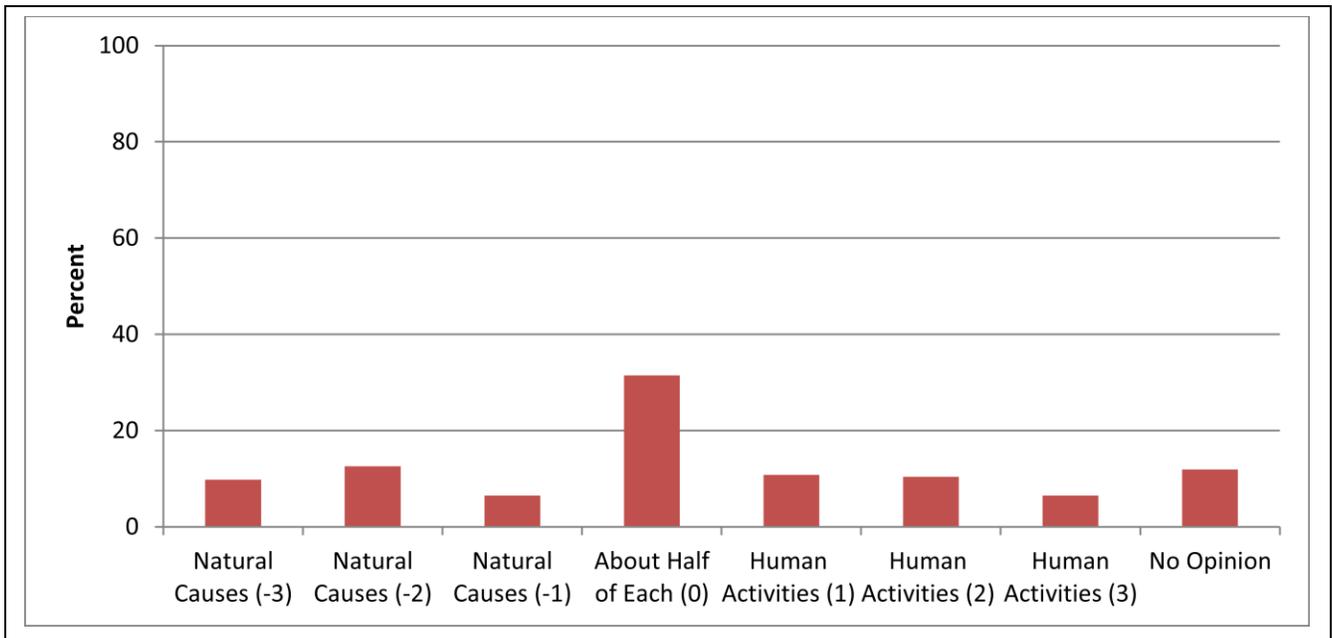
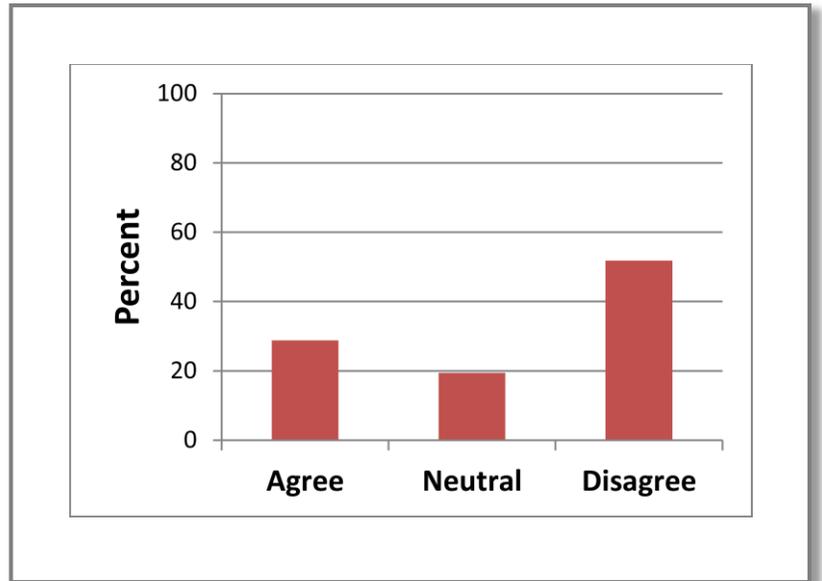
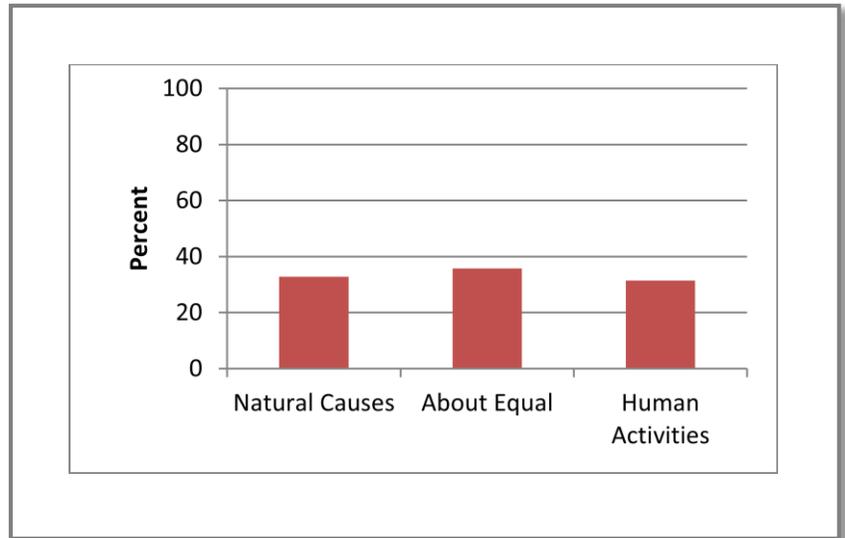


Figure 33. South Dakota residents’ beliefs about the causes of climate change ranging from totally natural causes (-3) to totally human activities (+3) (2012).

Figure 34. South Dakota residents' summarized beliefs regarding the causes of climate change (2012).



Section 8: *Energy Development Issues in South Dakota.*⁶ Four questions on this topic were included in the survey questionnaire along with the following information:

Finding and developing alternative sources of energy as well as concerns over associated impacts of these activities on wildlife and the environment are often topics of discussion in South Dakota. We are interested in learning **your views about energy development in South Dakota.**

Most South Dakota residents (67%) agreed that wildlife impacts and grassland habitat loss should be considered when increasing biofuel production (only 13% disagreed) (Table 8.1 and Figure 35). However, a majority of residents (60%) also supports efforts to increase ethanol production in South Dakota, with 22% not supporting increased ethanol production in South Dakota (Table 8.2 and Figure 35).

Most South Dakota residents (57%) also agreed that negative impacts on wildlife should be considered when developing wind energy in South Dakota (24% disagreed) (Table 8.3 and Figure 36). About half of the South Dakota residents (50%) agreed with the statement, “I think people worry too much about possible environmental problems associated with pipelines for transporting oil across South Dakota” (Table 8.4 and Figure 37).

⁶ Questions in Survey Version 2 (Appendix A).

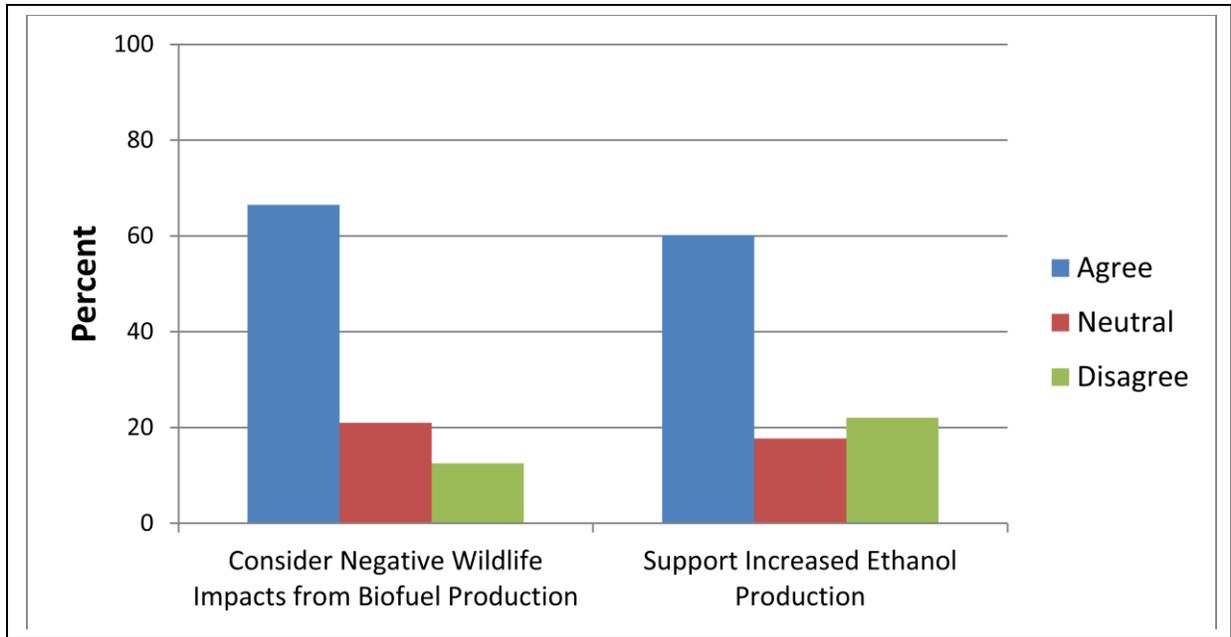


Figure 35. South Dakota residents' attitudes related to biofuel production in South Dakota (2012).

Figure 36. Attitude: Percent agreement/disagreement with the statement, "Negative impacts on wildlife should be considered when developing wind energy in South Dakota" (2012).

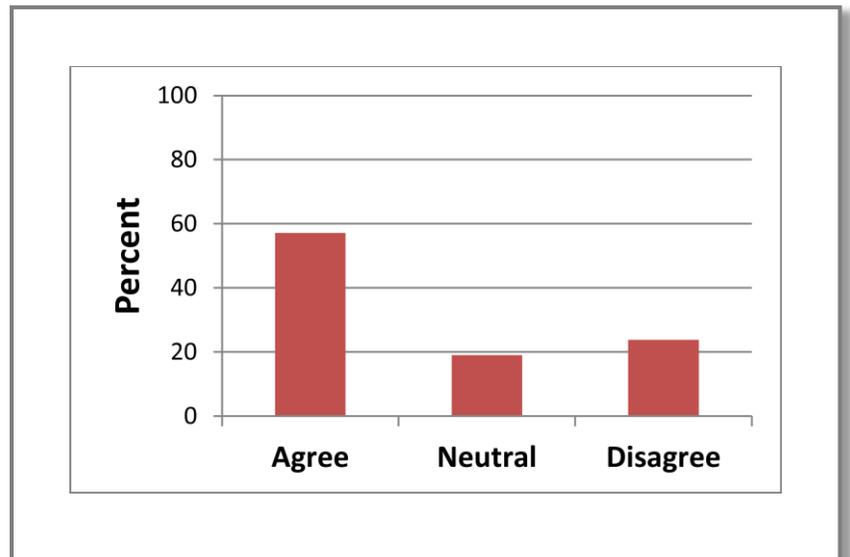
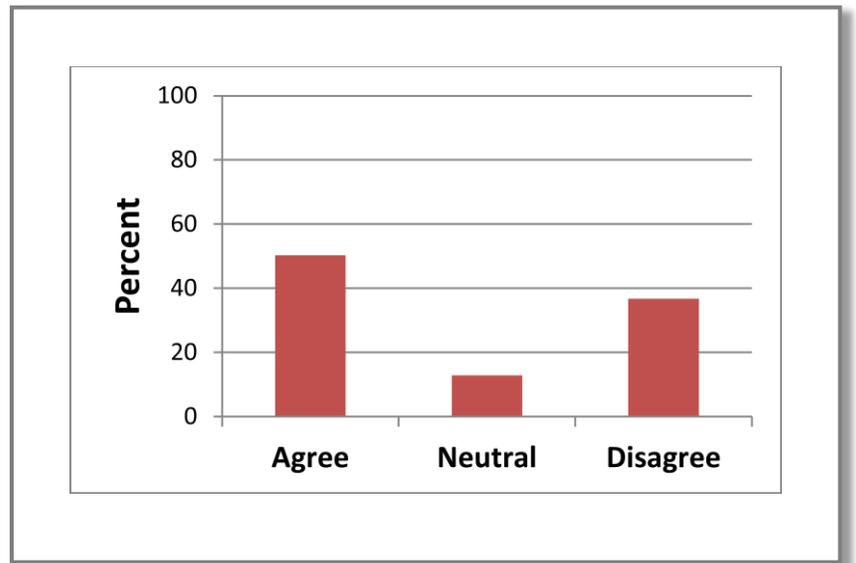


Figure 37. Attitude: Percent agreement/disagreement with the statement, “I think people worry too much about possible environmental problems associated with pipelines for transporting oil across South Dakota” (2012).



Section 9: Miscellaneous Wildlife Management Issues in South Dakota.⁷ Most South Dakota residents (63%) would “support requirements to use non-toxic bullets for shooting prairie dogs to reduce lead poisoning of eagles, hawks and other wildlife” (Table 9.1 and Figure 38). About 42% of South Dakota residents reported that they were “concerned about feral (wild), free ranging house cats killing native birds” and, most residents (69%) would “support regulations to control commercial harvest and unregulated take of turtles, lizards, snakes, frogs and toads if information showed that their populations were declining to unacceptable levels” (Tables 9.2 and 9.3 and Figures 39 and 40). Yet, only 42% of South Dakota residents agreed with the statement that, “Rattlesnakes are an important component of South Dakota’s assemblage of wildlife and should not be killed indiscriminately,” while about 37% disagreed (Table 9.4 and Figure 41). Also, only 42% of South Dakota residents disagreed with the statement, “In general, efforts should be made to reduce predator numbers to help increase the numbers of game animals for hunters,” while 34% agreed (Table 9.5 and Figure 42).

⁷ Questions in Survey Version 1 (Appendix A).

Figure 38. Attitude: Percent agreement/disagreement with the statement, “I would support requirements to use non-toxic bullets for shooting prairie dogs to reduce lead poisoning of eagles, hawks and other wildlife” (2012).

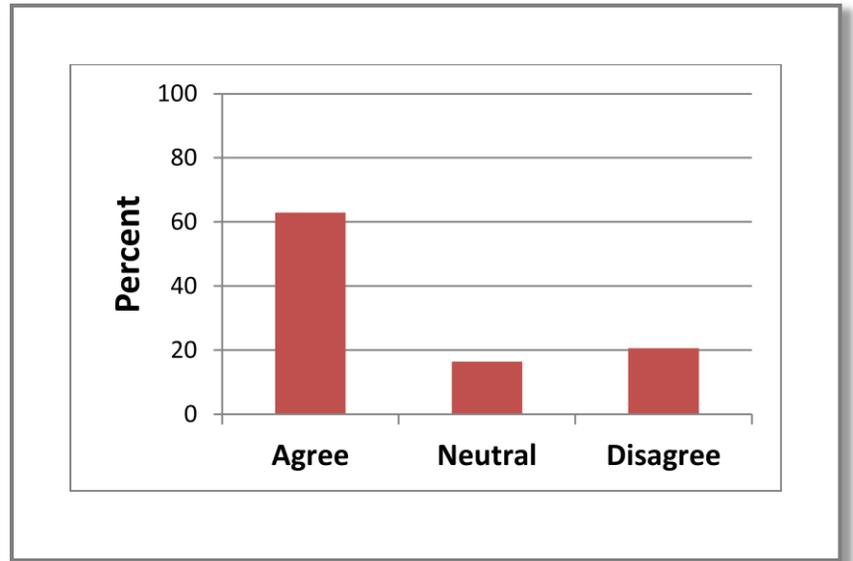


Figure 39. Attitude: Percent agreement/disagreement with the statement, “I am concerned about feral (wild), free ranging house cats killing native birds” (2012).

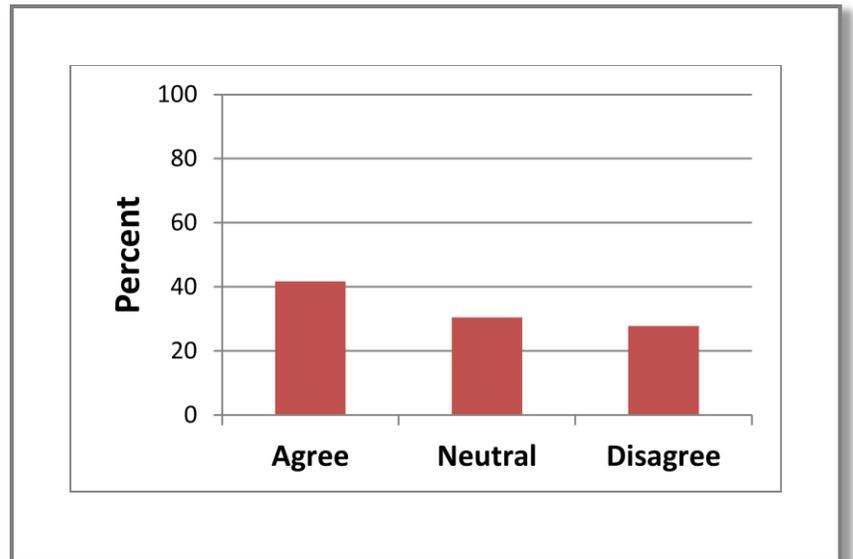


Figure 40. Attitude: Percent agreement/disagreement with the statement, “I would support regulations to control commercial harvest and unregulated take of turtles, lizards, snakes, frogs and toads if information showed that their populations were declining to unacceptable levels” (2012).

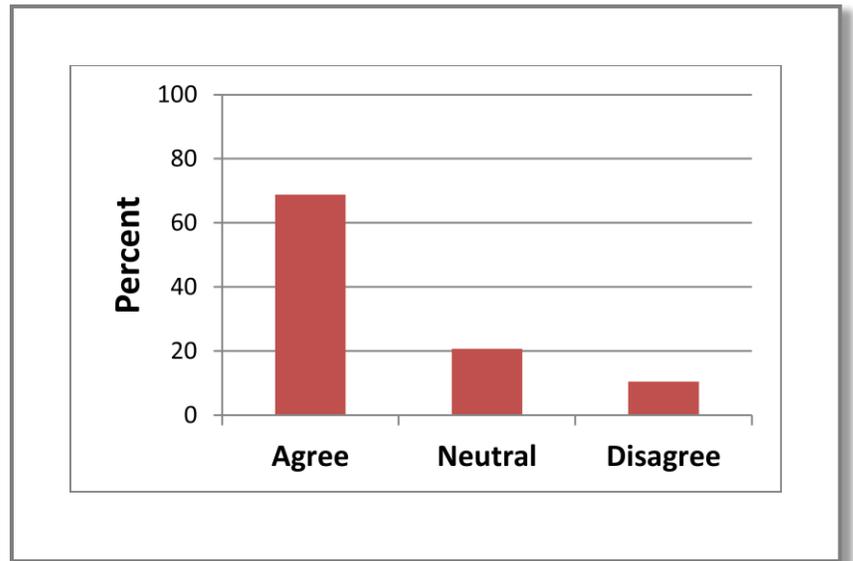


Figure 41. Attitude: Percent agreement/disagreement with the statement, “Rattlesnakes are an important component of South Dakota’s assemblage of wildlife and should not be killed indiscriminately” (2012).

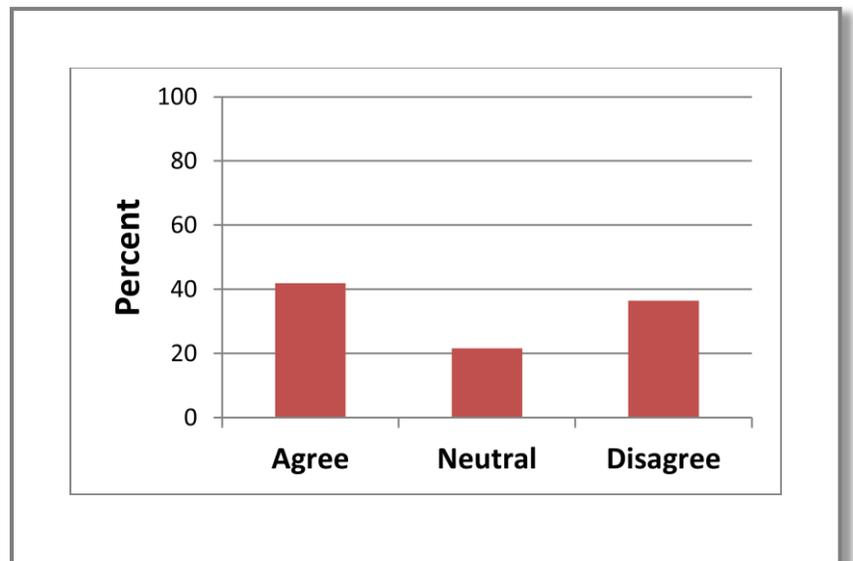
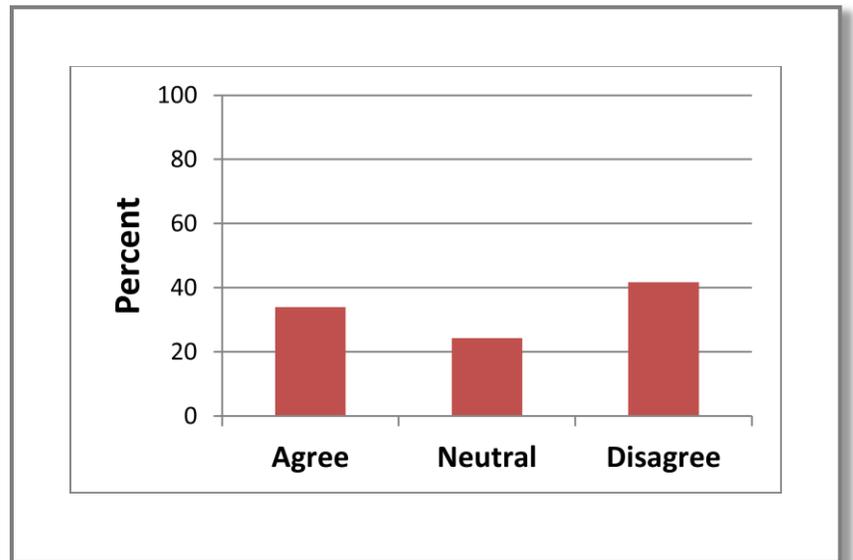


Figure 42. Attitude: Percent agreement/disagreement with the statement, “In general, efforts should be made to reduce predator numbers to help increase the numbers of game animals for hunters” (2012).



Section 10: Wetlands.⁸ South Dakota residents were asked to rate the importance of five wetland functions to themselves on a scale of 0 (not important) to 3 (very important) (Table 10). Providing clean water received the highest mean importance score (2.7) and providing recreational opportunities the lowest mean importance score (1.9) (Figure 43).

Fishing and Hunting Participation. Most South Dakota residents have fished (87%) and hunted (60%) at least sometime in their lives (Tables 11 and 12 and Figure 44). Of the residents who have fished, about 52% fished during the past 2 years. Of the residents who have hunted, about 61% hunted during the past 2 years. About 7% of the anglers and 18% of the hunters reported that fishing/hunting; respectively was their most important recreational activity (Tables 13 and 14 and Figure 45). Overall, hunters’ mean rating of the importance of hunting was higher than anglers’ mean rating of the importance of fishing (Figure 46).

⁸ Questions in Survey Version 2 (Appendix A).

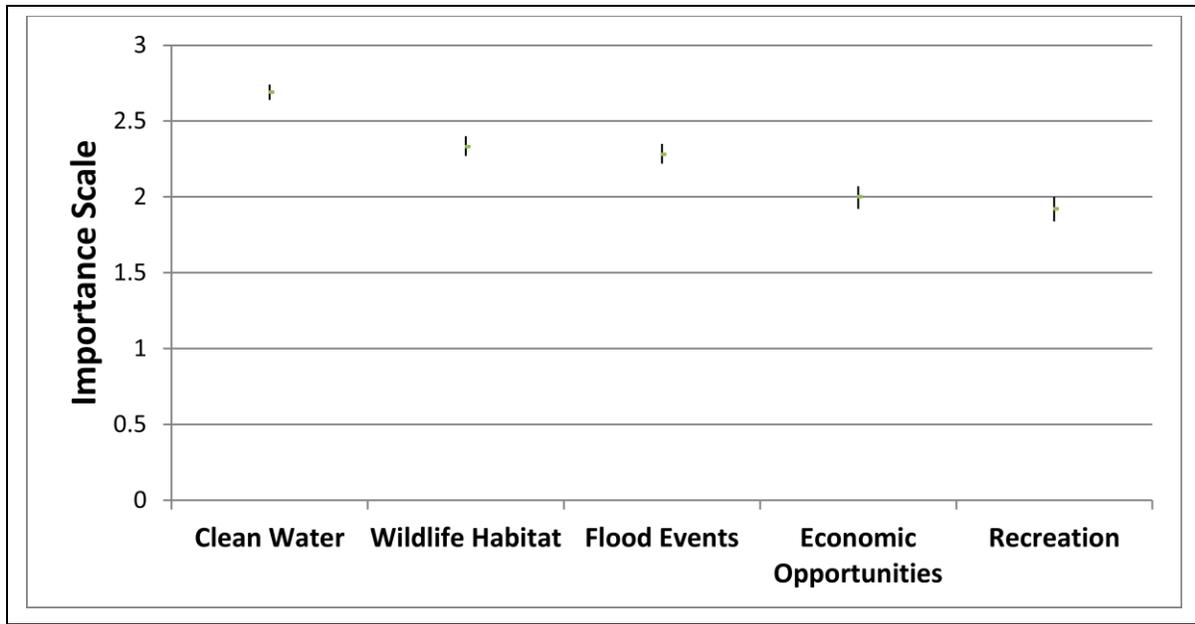


Figure 43. South Dakota residents’ mean rating of the importance of five functions provided by wetlands (0=not important, 1=slightly important, 2=moderately important, and 3 = very important) (mean value with 95% confidence intervals).

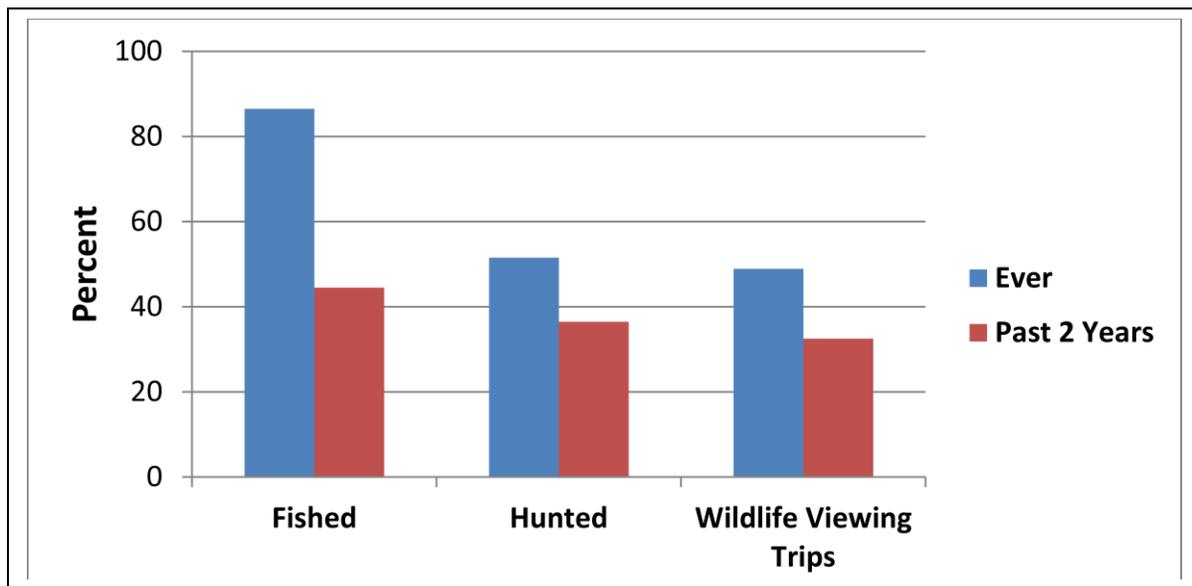


Figure 44. Fishing and hunting participation and taking wildlife viewing trips by South Dakota residents (2012).

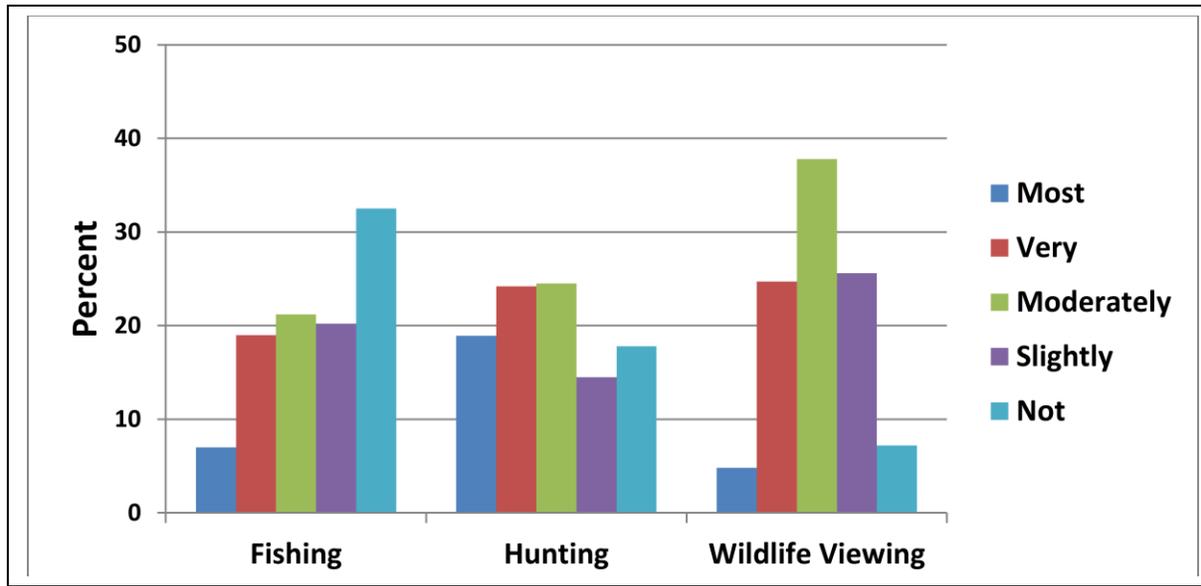


Figure 45. Anglers', hunters' and wildlife viewers' rating of the importance of fishing / hunting / wildlife viewing, respectively (2012).

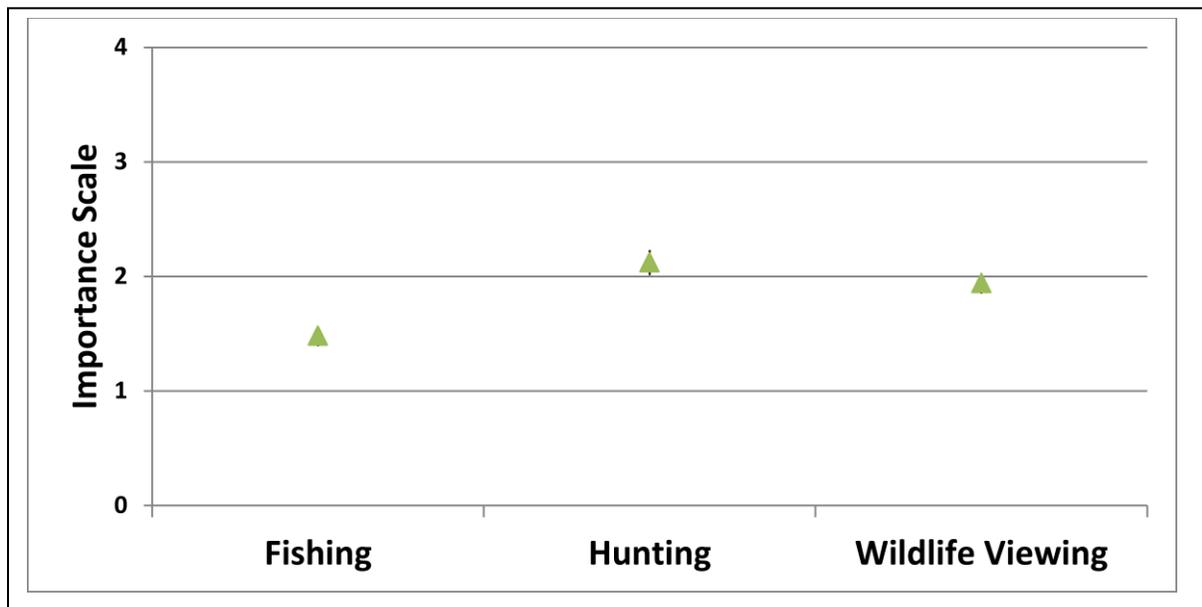


Figure 46. Anglers', hunters' and wildlife viewers' mean rating of the importance of fishing / hunting / wildlife viewing, respectively (2012).

Wildlife Viewing Trips. Almost half of the South Dakota residents (49%) reported that they have taken trips sometime in their lifetime for which fish and wildlife viewing was the primary purpose of the trip, of which 66% reported taking such trips during the past two years (Table 15 and Figure 44). Half of the recent wildlife viewing trips included both South Dakota and other states, and 43% involving travel only within South Dakota (Table 15 and Figure 47). The majority of residents who reported ever taking a primary wildlife viewing trip (83%) rated the importance of wildlife viewing as slightly (24%), moderately (36%), or very (23%) important (Table 16 and Figure 45). Wildlife viewers rated the recreational importance of wildlife viewing almost as high as the hunters' rating of the recreational importance of hunting (Figure 46).

Interest in Future Wildlife Viewing Trips & Wildlife Viewing Near Home. Nearly three-fourths of South Dakota residents reported having some level of interest in taking primary wildlife viewing trips in the future (Table 17 and Figure 47). About 48% of the South Dakota residents reported feeding birds and 19% reported feeding other wildlife for viewing purposes (Tables 18 and 19). About 79% of the residents expressed some level of importance in having wildlife viewing opportunities near their home (Table 20 and Figure 48).

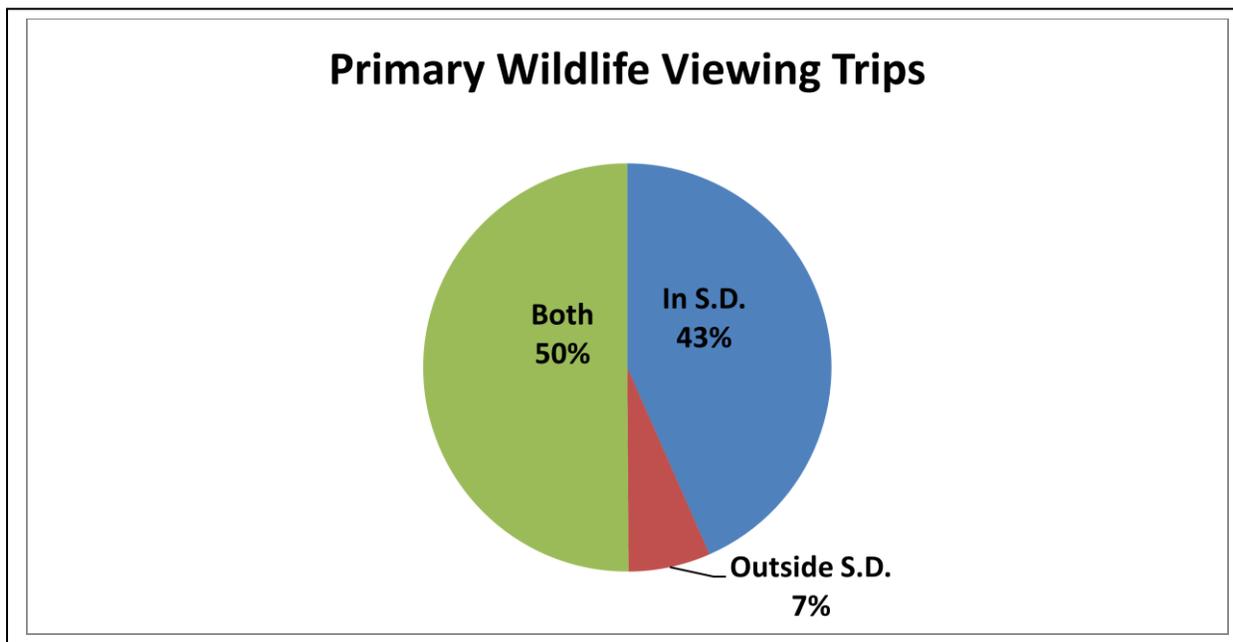


Figure 47. Recreational trips for which fish and wildlife viewing was the primary purpose by South Dakota residents (2012).

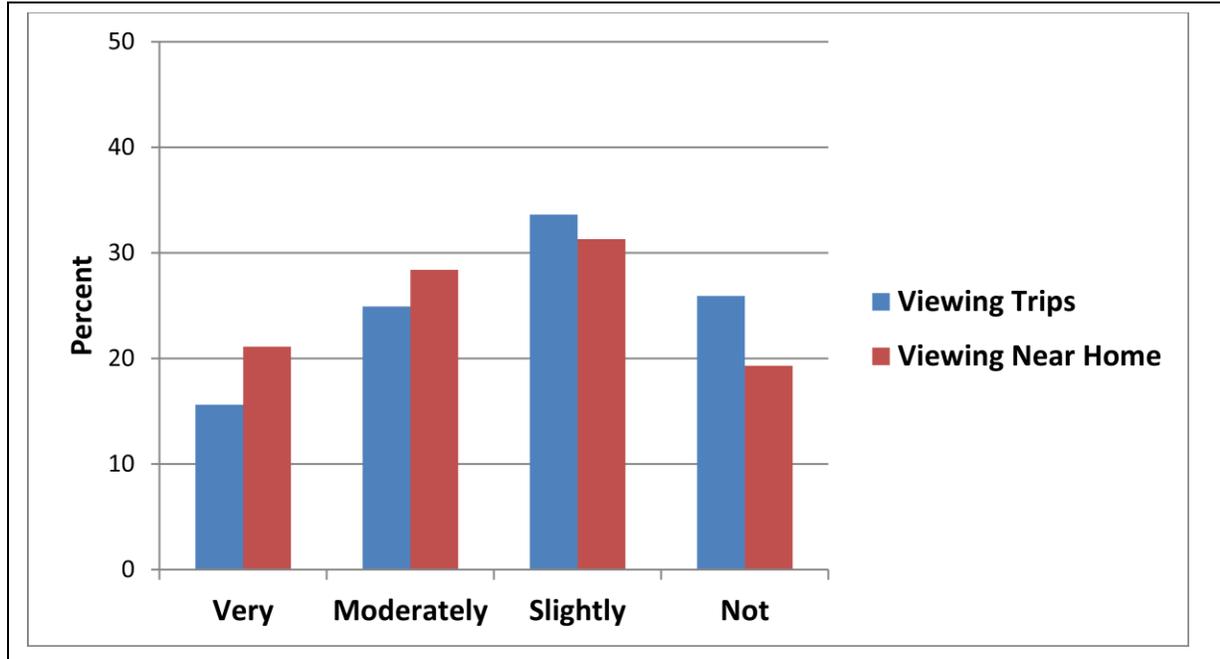


Figure 48. South Dakota residents interest in taking primary wildlife viewing trips in the future and their rating of the importance of having wildlife viewing opportunities near their home (2012).

Demographic Description of South Dakota Resident Sample (2012). The data were weighted by sex and age so the data in Table 21 reflect the weighted values. Average age was 48.5 years and survey respondents lived an average of 37 years in South Dakota (Table 22). About 24% of the respondents lived in a rural residence (Table 22 and Figure 49); 73% lived East River with the majority in SDGFP Region 3 (Table 23 and Figure 50). About 36% owned land outside of city limits and about 13% were farmers/ranches (full-time, part-time or retired) (Table 24). About 30% were raised on a farm/ranch or in a rural area (Table 25).

Comments. A small number of comments were returned with the questionnaire and are provided in Appendix D.

Figure 49. Type of residence of survey respondents (2012).

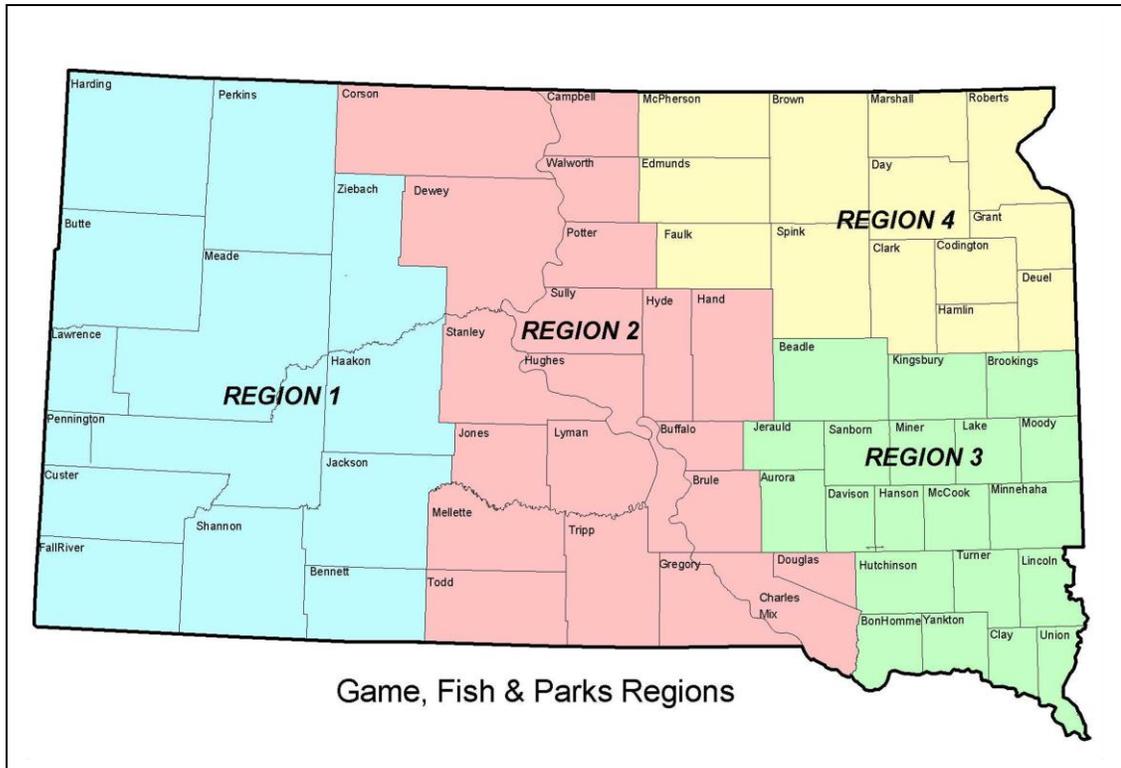
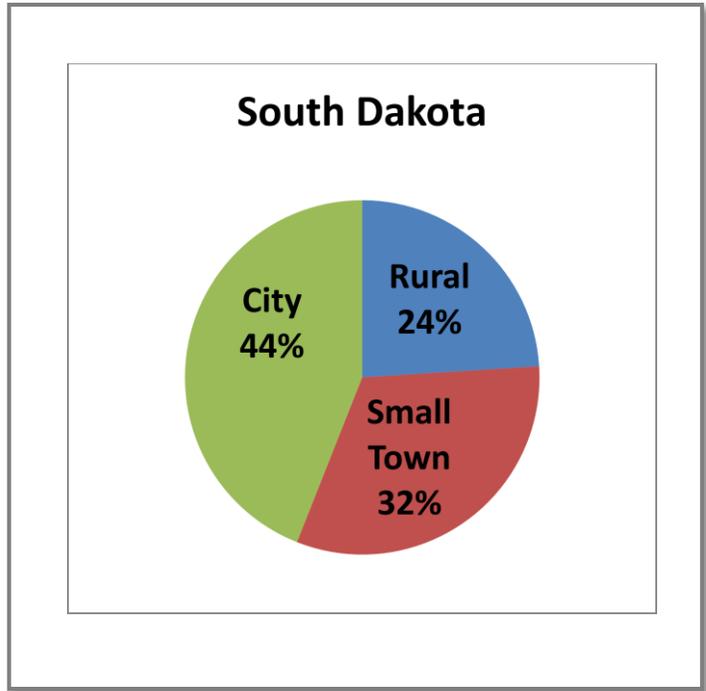


Figure 50. Game, Fish, and Parks' management regions.

Discussion

General Questions about Fish and Wildlife Management in South Dakota. General measures of the importance/value of fish and wildlife indicate that South Dakota citizens place a relatively high value on having healthy populations of fish and wildlife. About 80% of the citizens feel that living in South Dakota is better than other places they could consider living and most South Dakota residents said that fish and wildlife was a contributing factor of their “quality of living” in South Dakota. These values appear to be very stable.

Wildlife Value Orientations (WVO). Values are said to form the foundation of cognitions that shape the formation of beliefs and attitudes held by individuals. Having an understanding of an individual’s basic values can be predictive of certain attitudes and behaviors for specific situations. One basic value orientation related to wildlife was described by Teel and Manfredi (2009) and lists four types of value orientations (*described on page 7*). Most South Dakota residents (54%) have a utilitarian value orientation towards wildlife, which holds that the main value of wildlife stems from wildlife’s potential benefits to humans. Opposite of a utilitarian value orientation is the mutualist value which tends to ascribe human characteristics and rights to wildlife. While the mutualist value orientation represents a small segment of South Dakotans (15%) their view of how wildlife should be treated is often in direct conflict with people holding a utilitarian value. Pluralists (21%) hold both a mutualism and a utilitarian value orientation towards wildlife and their response towards wildlife tends to vary by situation. On the other hand, people classified as having a distanced (10%) WVO do not hold either a utilitarian or a mutualist orientation and tend to be less interested in wildlife and wildlife related issues. The value of knowing the WVO of a group of people lies in the ability to predict peoples’ attitudes towards a range of specific wildlife related issues. This will be further explored in a separate report.

Prairie Ecosystem Issues. Most South Dakota citizens place a high general value on maintaining healthy native prairie ecosystems, however differences in attitudes can be found concerning more specific topics, such as the role of prairie dogs and their management. The findings are supported by the results from the Wildlife Value Orientations with about 90% of the citizens holding a utilitarian, mutualist or a pluralist value orientation. These three orientations

all hold a high general value towards wildlife; the conflicts tend to be related to specific viewpoints in how wildlife should be viewed or managed.

Bats in South Dakota. Bats are a group of animals that some people find less appealing and overall attitudes tend to be more negative compared to general attitudes towards wildlife. However, the majority of South Dakota residents' opinion towards bats is fairly positive with the exception of having bats living and feeding near peoples' houses. Also, many South Dakota residents may not be very knowledgeable about white-nose syndrome and its effect on bat populations given the high percent of "neutral or no opinion" responses (45%).

Mountain Lions in South Dakota. The mountain lion is a species that is often surrounded by controversy. Having been nearly extirpated from South Dakota and rarely observed in South Dakota during the last half of the 1900's the mountain lion's reputation changed from being viewed as a dangerous predator by many people to that of playing an important role in a healthy ecosystem. However, the rarity of mountain lion sightings has changed during the first decade of the 21st century to being a much more common event. The mountain lion population has supported an increasing harvest since the first season in 2005 (Gigliotti, 2011) and an increasing number of problem lions have been removed by the South Dakota Game, Fish and Parks Department or killed by vehicles. When first measured in 2002, people had a very favorable attitude towards mountain lions and for the most part little had changed in regard to mountain lions with the main exception being a belief that mountain lions today (2012) are killing too many game animals and a larger percent of Black Hills residents favoring a mountain lions hunting season.

Wildlife Management Issues: Rare Non-game vs. Game Animals/Fish. Issues involving trade-offs or at least perceptions of trade-offs between managing for game species versus rare non-game species have the potential to be controversial in South Dakota. In general, about half the South Dakota residents say they support a balanced approach between managing for game species and rare non-game species, however, the other half are split between favoring game species and rare species. Two examples of rare non-game species are the river otter and the osprey. While many people would support efforts to increase the numbers of these species in South Dakota an almost equal number were undecided due to concerns about these two species possibly taking too many fish.

Climate Change. A little over half of South Dakota residents believe that climate change is currently affecting South Dakota with the remaining percent split between being undecided and not believing that climate change is occurring. Belief that climate change is “real” appears to be increasing based on a 17% increase among Black Hills residents saying they believe that climate change is affecting South Dakota when measured in 2008 and again in 2012. While many people believe that climate change is “real” and that changes in life style and reductions in carbon emissions are needed a nearly equal percent either are undecided or do not believe that climate change is “real” and changes are needed. The indecision and polarized viewpoints are likely strongly influenced by beliefs held concerning the causes of climate change being either due mainly to natural causes or the result of human activities. If people believe that climate change is a natural event they may be less likely to believe that actions to reverse the change are needed and/or would be effective. Before people are going to be willing to make life-style changes and accept carbon emission reducing regulations they will need to believe that: (1) climate change is real, (2) the main causes are human activities, and (3) actions can be taken that will have positive results.

Energy Development Issues in South Dakota. South Dakota residents can hold both a supportive attitude towards increased ethanol production and an attitude that energy development (from biofuel production and wind energy) needs to consider any negative impacts on wildlife as a result of developing alternative sources of energy. Developing new alternative sources of energy can become controversial, especially when getting into the specific aspects of projects as evidenced by the polarized views towards the statement, “I think people worry too much about possible environmental problems associated with pipelines for transporting oil across South Dakota.”

Miscellaneous Wildlife Management Issues in South Dakota & Wetlands. While South Dakota residents hold a high environmental attitude toward general topics, such as concern about wildlife and associated habitats, attitudes towards specific issues can vary greatly, as evidenced by the wide range of attitudes towards five wildlife issues measured in this survey. The five general functions of wetlands all received relatively high importance ratings, with clean water getting the highest importance rating, wildlife habitat and reducing flood events each having the

second highest ratings, and economic opportunities and recreation each with the third highest ratings.

Fishing, Hunting, and Wildlife Viewing. Fishing is an activity that many people have tried, often while young or being introduced by friends, but have not adopted as an important recreational activity. Fishing, hunting and wildlife viewing all have a very different pattern of importance ratings. Fishing has a low percent of participants claiming it as their most important recreational activity and a high percent rating it as not important; hunting has a relatively high percent of participants claiming it as their most important recreational activity; and wildlife viewing participants had a bell-shaped distribution with most participants rating the activity as moderately important.

Summary

This survey measured a range of general and specific attitudes covering a number of topics. In general, most South Dakota residents have positive attitudes towards wildlife and are supportive of efforts to maintain quality habitat for wildlife. The importance of wildlife is best summarized by the results showing that 80% of South Dakota residents reported fish and wildlife contributes to a high “quality of life” and only about 1% reporting that fish and wildlife detracts from their “quality of life” in South Dakota. However, there can be some controversy when it comes to issues involving specific wildlife species. For example, this survey measured a greater level of disagreement regarding issues involving specific wildlife species, such as, prairie dogs, mountain lions, rattlesnakes, bats, river otters, and ospreys.

Controversy surrounding some species of wildlife generally stems from different opinions on how wildlife should be viewed/treated/managed. These differences are best summarized by the Wildlife Value Orientation (WVO) scale, which measures a general core value people have towards wildlife. The WVO scale measures peoples’ wildlife values along a continuum of utilitarian values at one end and mutualist values at the other end and classifies people into four groups (Utilitarian, Mutualist, Pluralist, and Distanced). Pluralists can hold both value orientations and their attitude towards a specific issue is dependent upon the given situation, while people with a distanced orientation do not hold either orientation. Utilitarians

value wildlife primarily for their use or benefit to humans while mutualists view all wildlife as deserving of rights and caring. Such contrasting viewpoints can create controversial issues involving a range of wildlife species and management actions. The potential for conflict is also supported by the split in peoples' attitudes regarding the degree to which wildlife management decisions should favor game animals/fish or rare wildlife species (*see Figure 29*).

The value of the WVO scale lies in its potential to predict how people may respond to various wildlife issues. Utilitarians will generally be supportive of actions that allow use of wildlife classified as game and control of species deemed as harmful to humans, their property, or valued game species. Mutualists will generally be opposed to any management actions that are harmful to any wildlife species. Thus, the WVO of South Dakota residents measured in this survey can be used to estimate attitudes towards wildlife issues not measured by this survey. This will be further explored in a separate report.

Wildlife and Environmental Attitudes of South Dakota Citizens – A 2012 Survey

Section 1: Tables

General Questions about Fish & Wildlife Management in South Dakota

Table 1.1. South Dakota has a great diversity (variety) of fish and wildlife. How important is it to you that South Dakota conserves/protects as much fish and wildlife as possible where appropriate? Results of South Dakota citizen surveys conducted in 1997, 2002, 2004, 2007 and 2012.

Importance (Scale)	South Dakota General Public Opinion Surveys – Year Conducted					
	1997 ¹	2002 ²	2002 ³	2004 ⁴	2007 ⁵	2012
Very (3)	64.2%	60.7%	62.3%	69.3%	68.9%	77.1%
Moderately (2)	20.0%	28.9%	26.9%	25.6%	25.3%	16.8%
Slightly (1)	5.6%	7.9%	7.9%	4.0%	4.6%	3.4%
Not (0)	1.2%	1.5%	1.7%	0.5%	1.2%	1.1%
No Opinion (missing)	2.0%	1.0%	1.2%	0.6%	N/A	1.5%
Sample Size	2,147	1,101	400	735	961	1,094
Mean	2.57	2.50	2.52	2.65	2.66	2.72
95% C.I.	N/A	N/A	N/A	2.61 – 2.69	2.62 – 2.70	2.69 – 2.76

¹Question in the “Environmental and Wildlife Attitudes of South Dakota Residents” survey (Gigliotti, 1998)

²Question included at the beginning of the mountain lion public opinion survey (Gigliotti, et al., 2002)

³Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

⁴Question included in the “Wildlife Values in the West” survey (Gigliotti, 2006)

⁵Question in the “South Dakota Citizens’ Evaluation of GFP” survey (Gigliotti, 2008)

Table 1.2. How important do you think healthy fish and wildlife populations are to the economy and well-being of South Dakota residents? Results of South Dakota citizen surveys conducted in 1997, 2002, 2004, 2007 and 2012.

Importance (Scale)	South Dakota General Public Opinion Surveys – Year Conducted					
	1997 ¹	2002 ²	2002 ³	2004 ⁴	2007 ⁵	2012
Very (3)	59.3%	58.8%	58.6%	78.2%	77.5%	76.9%
Moderately (2)	29.4%	30.4%	32.5%	18.7%	18.4%	19.8%
Slightly (1)	7.3%	8.5%	7.5%	2.3%	3.5%	2.1%
Not (0)	1.1%	1.3%	0.5%	0.4%	0.6%	0.3%
No Opinion (missing)	2.8%	1.1%	0.9%	0.4%	N/A	0.9%
Sample Size	2,147	1,106	404	738	976	1,096
Mean	2.51	2.48	2.51	2.75	2.73	2.75
95% C.I.	N/A	N/A	N/A	2.72 – 2.79	2.69 – 2.76	2.72 – 2.78

¹Question in the “Environmental and Wildlife Attitudes of South Dakota Residents” survey (Gigliotti, 1998)

²Question included at the beginning of the mountain lion public opinion survey (Gigliotti, et al., 2002)

³Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

⁴Question included in the “Wildlife Values in the West” survey (Gigliotti, 2006)

⁵Question in the “South Dakota Citizens’ Evaluation of GFP” survey (Gigliotti, 2008)

Table 1.3. How strongly do you agree or disagree with the statement, “the diversity of wildlife in an area is a sign of the quality of the natural environment”? Results of South Dakota citizen surveys conducted in 1997, 2002 and 2012.

Attitude (Scale)	South Dakota General Public Opinion Surveys - Year			
	1997 ¹	2002 ²	2002 ³	2012
Strongly Agree (+3)	N/A ¹	52.4%	42.2%	44.9%
Moderately Agree (+2)		29.9%	32.7%	31.6%
Slightly Agree (+1)		8.5%	12.4%	13.2%
Neutral / No Opinion (0)		6.0%	9.0%	7.1%
Slightly Disagree (-1)		0.9%	1.1%	1.0%
Moderately Disagree (-2)		1.3%	0.7%	0.9%
Strongly Disagree (-3)		1.0%	1.8%	1.4%
Sample Size	N/A ¹	1,101	400	1,091
Mean		2.19	1.97	2.04
95% C.I.		N/A	N/A	1.97 – 2.11
SUMMARIZED RESULTS				
ATTITUDE	1997 ¹	2002 ²	2002 ³	2012
AGREE	84.6%	90.8%	87.3%	89.6%
NEUTRAL / NO OPINION	8.5%	6.0%	9.0%	7.1%
DISAGREE	6.9%	3.2%	3.6%	3.2%

¹The 1997 survey only had two levels of agreement (strongly & slightly)

²Question included at the beginning of the mountain lion public opinion survey (Gigliotti, et al., 2002)

³Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

Table 1.4. In general, how would you rate Game, Fish and Parks' efforts to conserve and protect the diversity (variety) of fish and wildlife of South Dakota? Results of South Dakota citizen surveys conducted in 2004, 2007 and 2012.

The SD GFP's focus on wildlife diversity issues is...	South Dakota General Public Opinion Surveys - Year		
	2004 ¹	2007 ²	2012
Far too little (-3)	1.7%	1.3%	0.9%
Moderately too little (-2)	4.1%	2.8%	3.5%
Slightly too little (-1)	14.4%	8.4%	11.3%
Just about the right amount (0)	54.7%	53.8%	54.2%
Slightly too much (+1)	4.6%	6.7%	6.5%
Moderately too much (+2)	1.7%	4.5%	4.3%
Far too much (+3)	0.9%	1.6%	1.6%
No Opinion (missing)	17.9%	20.9%	17.7%
Sample Size	731	1,066	1,084
Mean	-0.21	0.03	-0.01
95% C.I.	-0.28 – -0.14	-0.03 – 0.09	-0.08 – 0.05
SUMMARIZED RESULTS			
The SD GFP's focus on wildlife diversity issues is...	South Dakota General Public Opinion Surveys - Year		
	2004 ¹	2007 ²	2012
TOO LITTLE	24.6%	15.9%	19.1%
JUST ABOUT RIGHT	66.7%	68.0%	65.9%
TOO MUCH	8.7%	16.1%	15.0%
TOTAL (MISSING REMOVED)	600	843	892

¹Question included in the "Wildlife Values in the West" survey (Gigliotti, 2006)

²Question in the "South Dakota Citizens' Evaluation of GFP" survey (Gigliotti, 2008)

Table 1.5. Compared to other places where you could consider living, how would you rate life in South Dakota? Results of South Dakota citizen surveys conducted in 2007 and 2012.

Would you say that life in South Dakota is...	South Dakota General Public Opinion Surveys	
	2007 ¹	2012
Very Much Worse (-3)	0.8%	0.6%
Moderately Worse (-2)	1.0%	2.0%
Slightly Worse (-1)	3.5%	5.2%
About the Same (0)	12.7%	11.1%
Slightly Better (+1)	11.3%	12.9%
Moderately Better (+2)	30.1%	26.3%
Very Much Better (+3)	40.6%	37.4%
No Opinion (missing)	N/A	4.3%
Sample Size	1,043	1,094
Mean	1.88	1.74
95% C.I.	1.81 – 1.96	1.66 – 1.83
SUMMARIZED RESULTS		
Would you say that life in South Dakota is...	South Dakota General Public Opinion Surveys	
	2007 ¹	2012
WORSE	5.3%	8.2%
ABOUT THE SAME	12.7%	11.6%
BETTER	82.0%	80.2%
TOTAL (MISSING REMOVED)	1,043	1,047

¹Question in the “South Dakota Citizens’ Evaluation of GFP” survey (Gigliotti, 2008)

Table 1.6. In general, how much does fish and wildlife detract or contribute to a high “quality of life” for you? Results of South Dakota citizen survey conducted in 2012.

Fish & Wildlife... (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Detracts Greatly (-3)	4	0.4%
Detracts Moderately (-2)	4	0.4%
Detracts Slightly (-1)	7	0.6%
Neither (0)	193	17.6%
Contributes Slightly (+1)	153	14.0%
Contributes Moderately (+2)	366	33.5%
Contributes Greatly (+3)	331	30.3%
No Opinion (missing)	36	3.3%
Total	1,094	100%
Mean / 95% C.I.	1.75	1.68 – 1.82
SUMMARIZED RESULTS		
DETRACTS	15	1.4%
NEITHER	193	18.2%
CONTRIBUTES	850	80.4%
TOTAL	1,058	100%

Section 2: Tables

Wildlife Value Orientation

Table 2.1. Wildlife value orientation of South Dakota citizens measured in 2004 and 2012 and Black Hills residents measured in 2008 and 2012.

Wildlife Value Orientation ¹	S.D. Citizens 2004	S.D. Citizens 2012	Black Hills 2008	Black Hills 2012
Utilitarian	49.9%	53.6%	45.2%	48.9%
Mutualist	15.1%	15.3%	20.5%	20.3%
Pluralist	28.7%	20.9%	24.2%	21.7%
Distanced	6.3%	10.2%	10.1%	9.1%

¹Model based on 13 of the 14 questions under the Wildlife Value Orientation section on page 3 of the survey instrument (see Appendix A).

Section 3: Tables

Prairie Ecosystem Issues (questions in Survey Version 1 – Appendix A)

Prairie wildlife conservation faces different challenges in different regions of South Dakota. In eastern South Dakota, where most of the prairie has been converted to cropland, one of the challenges is finding and conserving large enough landscapes of prairie vegetation and its associated wildlife. In western South Dakota, where there still are large tracts of native grasslands, the current challenges are more related to the specific needs of certain species like black-footed ferrets, swift fox, black-tailed prairie dogs, and sage grouse.

How strongly do you disagree or agree with each statement?

Table 3.1. Maintaining a healthy native prairie ecosystem in South Dakota is important to me. Results of South Dakota citizen surveys conducted in 2002, 2004 and 2012.

Opinion (scale)	South Dakota General Public Opinion Surveys		
	2002 ¹	2004 ²	2012
Strongly Disagree (-3)	0.4%	1.6%	1.6%
Moderately Disagree (-2)	0.7%	1.9%	1.6%
Slightly Disagree (-1)	1.0%	1.1%	2.8%
Neither / No Opinion (0)	11.1%	6.3%	13.3%
Slightly Agree (+1)	18.5%	27.8%	21.3%
Moderately Agree (+2)	31.8%	34.1%	28.4%
Strongly Agree (+3)	36.6%	27.2%	30.9%
Total	404	728	100%
Mean	188	1.68	1.60
95% C.I.	1.77 – 1.99	1.59 – 1.77	1.49 – 1.71
SUMMARIZED RESULTS			
DISAGREE	2.0%	4.6%	6.1%
NEITHER / NO OPINION	11.1%	6.3%	13.3%
AGREE	86.9%	89.1%	80.6%

¹Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

²Question included in the “Wildlife Values in the West” survey (Gigliotti, 2006)

Table 3.2. Prairie dogs are an important component of native ecosystems and need some degree of protection. Results of South Dakota citizen surveys conducted in 2002, 2004 and 2012.

Opinion (scale)	South Dakota General Public Opinion Surveys		
	2002 ¹	2004 ²	2012
Strongly Disagree (-3)	9.8%	14.1%	11.7%
Moderately Disagree (-2)	7.0%	10.1%	8.8%
Slightly Disagree (-1)	13.0%	16.7%	9.8%
Neither / No Opinion (0)	13.7%	10.6%	17.9%
Slightly Agree (+1)	30.2%	27.1%	32.1%
Moderately Agree (+2)	13.2%	13.7%	10.8%
Strongly Agree (+3)	13.2%	7.8%	9.0%
Total	404	738	563
Mean	0.40	-0.01	0.18
95% C.I.	0.22 – 0.57	-0.15 – 0.12	0.04 – 0.33
SUMMARIZED RESULTS			
DISAGREE	29.8%	40.9%	30.2%
NEITHER / NO OPINION	13.7%	10.6%	17.9%
AGREE	56.6%	48.6%	51.9%

¹Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

²Question included in the “Wildlife Values in the West” survey (Gigliotti, 2006)

Table 3.3. Prairie dogs are a destructive agricultural pest that should be eliminated from South Dakota. Results of South Dakota citizen surveys conducted in 2002, 2004 and 2012.

Opinion (scale)	South Dakota General Public Opinion Surveys		
	2002 ¹	2004 ²	2012
Strongly Disagree (-3)	20.8%	17.4%	13.8%
Moderately Disagree (-2)	18.5%	12.4%	18.4%
Slightly Disagree (-1)	15.9%	24.8%	17.7%
Neither / No Opinion (0)	22.1%	15.5%	24.6%
Slightly Agree (+1)	10.1%	12.1%	11.3%
Moderately Agree (+2)	7.6%	9.3%	6.9%
Strongly Agree (+3)	4.9%	8.5%	7.2%
Total	403	737	563
Mean	-0.75	-0.46	-0.49
95% C.I.	-0.92 – -0.58	-0.59 – -0.32	-0.64 – -0.35
SUMMARIZED RESULTS			
DISAGREE	55.1%	54.6%	49.9%
NEITHER / NO OPINION	22.1%	15.5%	24.6%
AGREE	22.8%	29.9%	25.4%

¹Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

²Question included in the “Wildlife Values in the West” survey (Gigliotti, 2006)

Table 3.4. I support using some money from hunting license fees for projects designed to conserve and enhance native prairie ecosystems and their associated wildlife. Results of South Dakota citizen surveys conducted in 2002, 2004 and 2012.

Opinion (scale)	South Dakota General Public Opinion Surveys		
	2002 ¹	2004 ²	2012
Strongly Disagree (-3)	3.5%	1.6%	4.9%
Moderately Disagree (-2)	3.6%	1.8%	1.8%
Slightly Disagree (-1)	5.9%	3.6%	1.7%
Neither / No Opinion (0)	11.9%	5.5%	13.7%
Slightly Agree (+1)	22.9%	27.3%	27.5%
Moderately Agree (+2)	25.9%	32.3%	27.5%
Strongly Agree (+3)	26.4%	27.9%	22.9%
Total	404	731	562
Mean	1.30	1.64	1.31
95% C.I.	1.15 – 1.46	1.54 – 1.73	1.19 – 1.44
SUMMARIZED RESULTS			
DISAGREE	13.0%	7.0%	8.3%
NEITHER / NO OPINION	11.9%	5.5%	13.7%
AGREE	75.2%	87.5%	77.9%

¹Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

²Question included in the “Wildlife Values in the West” survey (Gigliotti, 2006)

Table 3.5. I am concerned about the accelerated conversion of native prairie habitat. Results of South Dakota citizen survey conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	34	6.0%
Moderately Disagree (-2)	15	2.7%
Slightly Disagree (-1)	19	3.4%
Neither / No Opinion (0)	202	36.0%
Slightly Agree (+1)	106	18.8%
Moderately Agree (+2)	114	20.3%
Strongly Agree (+3)	72	12.8%
Total	562	100%
Mean / 95% C.I.	0.71	0.58 – 0.84
SUMMARIZED RESULTS		
DISAGREE	68	12.1%
NEITHER / NO OPINION	202	36.0%
AGREE	291	51.9%

Section 4: Tables**Managing Bats in South Dakota (questions in Survey Version 1 – Appendix A)**

Thirteen species of bats are found in South Dakota. Bats roost (rest/sleep) in trees, buildings, caves, mines, and crevices. Bats play an important role in nature because they feed on insects. Places where bats feed and roost are vulnerable to disturbance and destruction.

How strongly do you disagree or agree with each statement?

Table 4.1. Maintaining healthy populations and diversity of bat species in South Dakota is important to me. Results of South Dakota citizen surveys conducted in 2004 and 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - Year	
	2004 ¹	2012
Strongly Disagree (-3)	6.7%	7.1%
Moderately Disagree (-2)	6.1%	4.4%
Slightly Disagree (-1)	7.2%	2.6%
Neither / No Opinion (0)	19.4%	30.0%
Slightly Agree (+1)	27.3%	25.8%
Moderately Agree (+2)	19.4%	19.2%
Strongly Agree (+3)	14.0%	10.9%
Total	733	560
Mean	0.69	0.64
95% C.I.	0.57 – 0.81	0.51 – 0.77
SUMMARIZED RESULTS		
DISAGREE	20.0%	14.1%
NEITHER / NO OPINION	19.4%	30.0%
AGREE	60.7%	55.9%

¹Question included in the “Wildlife Values in the West” survey (Gigliotti, 2006)

Table 4.2. Bats pose an unacceptable health risk to people. Results of South Dakota citizen surveys conducted in 2004 and 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - Year	
	2004	2012
Strongly Disagree (-3)	16.1%	15.7%
Moderately Disagree (-2)	21.4%	18.3%
Slightly Disagree (-1)	24.5%	17.9%
Neither / No Opinion (0)	13.5%	26.7%
Slightly Agree (+1)	14.1%	12.9%
Moderately Agree (+2)	6.4%	4.5%
Strongly Agree (+3)	4.0%	4.0%
Total	725	562
Mean	-0.77	-0.68
95% C.I.	-0.89 – -0.65	-0.81 – -0.55
SUMMARIZED RESULTS		
DISAGREE	62.0%	51.9%
NEITHER / NO OPINION	13.5%	26.7%
AGREE	24.5%	21.4%

Table 4.3. Bats are important and should have some legal protection from harm. Results of South Dakota citizen surveys conducted in 2004 and 2012.

Opinion (scale)	South Dakota General Public Opinion Survey – Year	
	2004	2012
Strongly Disagree (-3)	6.1%	7.0%
Moderately Disagree (-2)	4.8%	4.4%
Slightly Disagree (-1)	10.2%	12.9%
Neither / No Opinion (0)	19.7%	29.7%
Slightly Agree (+1)	29.4%	25.1%
Moderately Agree (+2)	17.0%	14.2%
Strongly Agree (+3)	12.7%	6.7%
Total	728	561
Mean	0.63	0.31
95% C.I.	0.51 – 0.75	0.18 – 0.43
SUMMARIZED RESULTS		
DISAGREE	21.2%	24.3%
NEITHER / NO OPINION	19.7%	29.7%
AGREE	59.1%	46.0%

Table 4.4. I would enjoy having bats living and feeding near my house. Results of South Dakota citizen surveys conducted in 2004 and 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - Year	
	2004	2012
Strongly Disagree (-3)	20.0%	22.0%
Moderately Disagree (-2)	13.5%	12.5%
Slightly Disagree (-1)	13.7%	10.3%
Neither / No Opinion (0)	11.5%	20.1%
Slightly Agree (+1)	15.0%	14.9%
Moderately Agree (+2)	14.1%	10.8%
Strongly Agree (+3)	12.3%	9.3%
Total	733	561
Mean	-0.20	-0.37
95% C.I.	-0.35 – -0.06	-0.53 – - 0.21
SUMMARIZED RESULTS		
DISAGREE	47.2%	44.9%
NEITHER / NO OPINION	11.5%	20.1%
AGREE	41.4%	35.0%

Table 4.5. I am concerned about the impact of diseases, such as white nose syndrome, on bat populations. Results of South Dakota citizen survey conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	23	4.1%
Moderately Disagree (-2)	19	3.4%
Slightly Disagree (-1)	29	5.2%
Neither / No Opinion (0)	250	44.6%
Slightly Agree (+1)	131	23.4%
Moderately Agree (+2)	58	10.3%
Strongly Agree (+3)	51	9.1%
Total	561	100%
Mean / 95% C.I.	0.47	0.36 – 0.58
SUMMARIZED RESULTS		
DISAGREE	71	12.7%
NEITHER / NO OPINION	250	44.6%
AGREE	240	42.7%

Section 5: Tables**Mountain Lions in South Dakota (questions in Survey Version 1–Appendix A)**

How strongly do you disagree or agree with each statement?

Table 5.1. Having a healthy, viable population of mountain lions in South Dakota is important to me. Results of South Dakota citizen surveys conducted in 2002 and 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - Year		
	2002 ¹	2002 ²	2012
Strongly Disagree (-3)	7.6%	11.4%	12.5%
Moderately Disagree (-2)	6.4%	6.3%	6.8%
Slightly Disagree (-1)	7.2%	6.9%	7.3%
Neither / No Opinion (0)	22.7%	28.1%	25.1%
Slightly Agree (+1)	18.0%	19.1%	21.5%
Moderately Agree (+2)	21.3%	14.9%	15.9%
Strongly Agree (+3)	16.8%	13.3%	10.8%
Total	405	1,098	564
Mean	0.68	0.35	0.27
95% C.I.	N/A	N/A	0.12 – 0.42
SUMMARIZED RESULTS			
DISAGREE	21.2%	24.6%	26.6%
NEITHER / NO OPINION	22.7%	28.1%	25.1%
AGREE	56.0%	47.4%	48.3%

¹Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

²Question included in the mountain lion public opinion survey (Gigliotti, et al., 2002)

Table 5.2. I am concern about mountain lions killing too many game (hunted) animals. Results of South Dakota citizen surveys conducted in 2002 and 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - Year		
	2002 ¹	2002 ²	2012
Strongly Disagree (-3)	18.5%	20.2%	8.6%
Moderately Disagree (-2)	10.1%	16.2%	12.5%
Slightly Disagree (-1)	17.5%	15.2%	11.6%
Neither / No Opinion (0)	21.0%	23.6%	22.4%
Slightly Agree (+1)	15.3%	12.4%	18.7%
Moderately Agree (+2)	9.6%	6.8%	12.3%
Strongly Agree (+3)	7.9%	5.6%	13.9%
Total	405	1,098	562
Mean	-0.35	-0.66	0.23
95% C.I.	N/A	N/A	0.08 – 0.38
SUMMARIZED RESULTS			
DISAGREE	46.2%	51.6%	32.7%
NEITHER / NO OPINION	21.0%	23.6%	22.4%
AGREE	32.8%	24.8%	44.9%

¹Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

²Question included in the mountain lion public opinion survey (Gigliotti, et al., 2002)

Table 5.3. Having any mountain lions in South Dakota is too dangerous a risk to people. Results of South Dakota citizen surveys conducted in 2002 and 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - Year		
	2002 ¹	2002 ²	2012
Strongly Disagree (-3)	28.5%	23.7%	23.3%
Moderately Disagree (-2)	13.8%	19.6%	20.6%
Slightly Disagree (-1)	17.4%	18.5%	13.5%
Neither / No Opinion (0)	15.4%	12.9%	15.6%
Slightly Agree (+1)	7.3%	10.8%	12.9%
Moderately Agree (+2)	10.8%	7.3%	6.6%
Strongly Agree (+3)	6.8%	7.2%	7.5%
Total	405	1,100	562
Mean	-0.82	-0.82	-0.76
95% C.I.	N/A	N/A	-0.92 – -0.61
SUMMARIZED RESULTS			
DISAGREE	59.8%	61.8%	57.4%
NEITHER / NO OPINION	15.4%	12.9%	15.6%
AGREE	24.9%	25.35	27.0%

¹Question included in the “Wildlife Values in the West” survey (Gigliotti, 2002)

²Question included in the mountain lion public opinion survey (Gigliotti, et al., 2002)

Table 5.4. South Dakota Residents: Do you oppose or favor a regulated mountain lion season in South Dakota? Results of South Dakota citizen surveys conducted in 2002 and 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	2002 ¹	2012
Strongly Oppose (-3)	7.5%	5.3%
Moderately Oppose (-2)	4.0%	1.5%
Slightly Oppose (-1)	2.6%	1.7%
Neither / No Opinion (0)	14.2%	20.2%
Slightly Favor (+1)	15.1%	19.2%
Moderately Favor (+2)	26.0%	18.8%
Strongly Favor (+3)	30.6%	33.3%
Total	1,081	555
Mean	1.26	1.36
95% C.I.	N/A	1.23 – 1.50
SUMMARIZED RESULTS		
OPPOSE	14.1%	8.5%
NEITHER / NO OPINION	14.2%	20.2%
FAVOR	71.7%	71.3%

¹Question included in the mountain lion public opinion survey (Gigliotti, et al., 2002)

Table 5.5. Do you oppose or favor a regulated mountain lion season in South Dakota? Results of the Black Hills resident survey conducted in 2008 and the South Dakota resident survey conducted in 2012.

Opinion (scale)	Black Hills Residents – Year	
	2008 ¹	2012
Strongly Oppose (-3)	11.1%	6.4%
Moderately Oppose (-2)	5.7%	2.7%
Slightly Oppose (-1)	6.9%	1.4%
Neither / No Opinion (0)	13.5%	14.6%
Slightly Favor (+1)	13.3%	19.6%
Moderately Favor (+2)	17.2%	23.0%
Strongly Favor (+3)	32.3%	32.4%
Total	4,381	120
Mean	0.93	1.37
95% C.I.	0.87 – 0.99	1.06 – 1.68
SUMMARIZED RESULTS		
OPPOSE	23.7%	10.4%
NEITHER / NO OPINION	13.5%	14.5%
FAVOR	62.8%	75.0%

¹ Gigliotti, et. al, 2009.

Section 6: Tables**Wildlife Management Issues: Rare Non-game Species vs. Game Animals/Fish
(Questions in Survey Version 2 – Appendix A)**

Some wildlife management issues place wildlife managers in conflicting roles of making decisions to increase numbers of rare species while also providing satisfactory numbers of game animals and game fish for hunters and anglers; below are a couple of examples. We are interested in learning **your views**.

How strongly do you disagree or agree with each statement?

Table 6.1. I would be concerned about River Otters taking too many game fish if their populations were to increase. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	35	6.6%
Moderately Disagree (-2)	61	11.5%
Slightly Disagree (-1)	65	12.2%
Neither / No Opinion (0)	229	43.1%
Slightly Agree (+1)	90	16.9%
Moderately Agree (+2)	39	7.3%
Strongly Agree (+3)	13	2.4%
Total	532	100%
Mean / 95% C.I.	-0.17	-0.28 – -0.05
SUMMARIZED RESULTS		
DISAGREE	162	30.4%
NEITHER / NO OPINION	229	43.1%
AGREE	141	26.6%

Table 6.2. I would support releasing River Otters into suitable habitats in South Dakota. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	15	2.9%
Moderately Disagree (-2)	16	2.9%
Slightly Disagree (-1)	30	5.6%
Neither / No Opinion (0)	204	38.3%
Slightly Agree (+1)	128	24.1%
Moderately Agree (+2)	84	15.8%
Strongly Agree (+3)	56	10.5%
Total	532	100%
Mean / 95% C.I.	0.67	0.56 – 0.79
SUMMARIZED RESULTS		
DISAGREE	60	11.3%
NEITHER / NO OPINION	204	38.3%
AGREE	268	50.4%

Table 6.3. I support efforts by GFP to increase Osprey numbers in South Dakota. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	12	2.3%
Moderately Disagree (-2)	17	3.2%
Slightly Disagree (-1)	26	4.9%
Neither / No Opinion (0)	229	43.1%
Slightly Agree (+1)	94	17.7%
Moderately Agree (+2)	83	15.7%
Strongly Agree (+3)	70	13.2%
Total	530	100%
Mean / 95% C.I.	0.70	0.58 – 0.82
SUMMARIZED RESULTS		
DISAGREE	55	10.4%
NEITHER / NO OPINION	229	43.1%
AGREE	247	46.5%

Table 6.4. I would be concerned about Osprey taking too many game fish if their populations were to increase. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	40	7.6%
Moderately Disagree (-2)	52	9.8%
Slightly Disagree (-1)	65	12.3%
Neither / No Opinion (0)	264	49.7%
Slightly Agree (+1)	70	13.1%
Moderately Agree (+2)	26	4.9%
Strongly Agree (+3)	14	2.6%
Total	531	100%
Mean / 95% C.I.	-0.24	-0.35 – -0.13
SUMMARIZED RESULTS		
DISAGREE	158	29.7%
NEITHER / NO OPINION	264	49.7%
AGREE	110	20.6%

Table 6.5. The Missouri River should not be managed for threatened or endangered species, such as terns and plovers, if it would in any way decrease game fish populations. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	45	8.5%
Moderately Disagree (-2)	60	11.2%
Slightly Disagree (-1)	62	11.6%
Neither / No Opinion (0)	212	39.8%
Slightly Agree (+1)	72	13.5%
Moderately Agree (+2)	52	9.8%
Strongly Agree (+3)	29	5.5%
Total	532	100%
Mean / 95% C.I.	-0.10	-0.23 – 0.03
SUMMARIZED RESULTS		
DISAGREE	167	31.4%
NEITHER / NO OPINION	212	39.8%
AGREE	153	28.8%

Table 6.6. In general, should wildlife management decisions favor game animals/fish OR rare wildlife species. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Favor Game Species (-3)	39	7.3%
Moderately Favor Game Species (-2)	50	9.5%
Slightly Favor Game Species (-1)	39	7.3%
Balanced Approach (0)	284	53.8%
Slightly Favor Rare Wildlife Species (+1)	57	10.8%
Moderately Favor Rare Wildlife Species (+2)	32	6.1%
Strongly Favor Rare Wildlife Species (+3)	27	5.1%
Total	528	100%
Mean / 95% C.I.	-0.10	-0.22 – 0.02
SUMMARIZED RESULTS		
FAVOR GAME SPECIES	128	24.2%
BALANCED APPROACH	284	53.8%
FAVOR RARE WILDLIFE SPECIES	116	22.0%

Section 7: Tables**Climate Change (Questions in Survey Version 2 – Appendix A)**

There has been a lot of talk recently about climate change (global warming) and its potential impacts. Climate change refers to changes occurring over approximately the past 100 years, not changes in climate over geological time periods. We are interested in learning **your views about climate change**.

How strongly do you disagree or agree with each statement?

Climate Change

How strongly do you disagree or agree with each statement?

Table 7.1. I believe that climate change is currently affecting South Dakota. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	47	8.6%
Moderately Disagree (-2)	52	9.7%
Slightly Disagree (-1)	33	6.0%
Neither / No Opinion (0)	106	19.6%
Slightly Agree (+1)	148	27.4%
Moderately Agree (+2)	81	15.0%
Strongly Agree (+3)	73	13.6%
Total	538	100%
Mean / 95% C.I.	0.47	0.32 – 0.62
SUMMARIZED RESULTS		
DISAGREE	131	24.3%
NEITHER / NO OPINION	106	19.6%
AGREE	302	56.0%

Table 7.2. I believe that climate change is currently affecting South Dakota. Results of Black Hills, S.D. resident surveys conducted in 2008 and 2012.

Opinion (scale)	Black Hills, S.D. Resident Survey – Year	
	Black Hills – 2008 ¹	2012
Strongly Disagree (-3)	20.4%	6.4%
Moderately Disagree (-2)	11.3%	7.2%
Slightly Disagree (-1)	6.5%	5.8%
Neither / No Opinion (0)	16.0%	17.4%
Slightly Agree (+1)	21.1%	33.9%
Moderately Agree (+2)	15.5%	16.4%
Strongly Agree (+3)	9.1%	12.8%
Number	4,437	117
Mean	-0.11	0.66
95% C.I.	-0.17 – -0.05	0.36 – 0.96
SUMMARIZED RESULTS		
DISAGREE	38.3%	19.4%
NEITHER / NO OPINION	16.0%	17.4%
AGREE	45.7%	63.2%

¹ I believe that climate change is currently affecting the area near my home (Gigliotti, et al. 2009).

Table 7.3. I believe that climate change is a serious threat that requires changes in current life styles. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	86	16.0%
Moderately Disagree (-2)	42	7.8%
Slightly Disagree (-1)	34	6.3%
Neither / No Opinion (0)	119	22.2%
Slightly Agree (+1)	105	19.6%
Moderately Agree (+2)	75	14.0%
Strongly Agree (+3)	76	14.1%
Total	538	100%
Mean / 95% C.I.	0.20	0.04 – 0.37
SUMMARIZED RESULTS		
DISAGREE	162	30.1%
NEITHER / NO OPINION	119	22.2%
AGREE	257	47.7%

Table 7.4. I support regulations to reduce carbon emissions to address climate change. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	57	10.5%
Moderately Disagree (-2)	39	7.2%
Slightly Disagree (-1)	25	4.6%
Neither / No Opinion (0)	92	17.1%
Slightly Agree (+1)	117	21.7%
Moderately Agree (+2)	90	16.8%
Strongly Agree (+3)	119	22.1%
Total	539	100%
Mean / 95% C.I.	0.71	0.55 – 0.87
SUMMARIZED RESULTS		
DISAGREE	121	22.4%
NEITHER / NO OPINION	92	17.1%
AGREE	326	60.5%

Table 7.5. I don't believe that climate change will result in any negative impacts on wildlife populations in South Dakota. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	91	16.9%
Moderately Disagree (-2)	95	17.6%
Slightly Disagree (-1)	93	17.3%
Neither / No Opinion (0)	104	19.4%
Slightly Agree (+1)	56	10.3%
Moderately Agree (+2)	60	11.1%
Strongly Agree (+3)	40	7.4%
Total	537	100%
Mean / 95% C.I.	-0.49	-0.64 – -0.33
SUMMARIZED RESULTS		
DISAGREE	278	51.8%
NEITHER / NO OPINION	104	19.4%
AGREE	155	28.8%

Table 7.6. Beliefs concerning the causes of climate change generally range from totally natural causes to totally human activities or some approximate combination of both. On this scale of 1 (all climate change is due to natural causes) to 7 (all climate change is from human activities), please indicate your personal belief about the causes of climate change.

Belief about Climate Change (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
1— Climate change is due to natural causes (-3)	53	9.8%
2 (-2)	68	12.6%
3 (-1)	35	6.5%
4— about half of each cause (0)	171	31.5%
5 (+1)	58	10.8%
6 (+2)	56	10.4%
7— Climate change is the full result of activities by humans (+3)	35	6.5%
8 (missing)	65	11.9%
Total	542	100%
Mean / 95% C.I.	-0.11	-0.27 – 0.04
SUMMARIZED RESULTS		
MORE NATURAL CAUSES	157	32.8%
ABOUT EQUAL	171	35.8%
MORE HUMAN ACTIVITIES	150	31.4%
TOTAL	477	100%

Section 8: Tables**Energy Development in S.D. (Questions in Survey Version 2 – Appendix A)**

Finding and developing alternative sources of energy as well as concerns over associated impacts of these activities on wildlife and the environment are often topics of discussion in South Dakota. We are interested in learning **your views about energy development in South Dakota.**

How strongly do you disagree or agree with each statement?

Table 8.1. Wildlife impacts and grassland habitat loss should be considered when increasing biofuel production. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	11	2.1%
Moderately Disagree (-2)	32	6.0%
Slightly Disagree (-1)	24	4.4%
Neither / No Opinion (0)	112	21.0%
Slightly Agree (+1)	124	23.1%
Moderately Agree (+2)	131	24.4%
Strongly Agree (+3)	102	19.0%
Total	535	100%
Mean / 95% C.I.	1.06	0.93 – 1.19
SUMMARIZED RESULTS		
DISAGREE	67	12.5%
NEITHER / NO OPINION	112	21.0%
AGREE	356	66.5%

Table 8.2. I support efforts to increase ethanol production in South Dakota. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	41	7.6%
Moderately Disagree (-2)	30	5.6%
Slightly Disagree (-1)	48	8.9%
Neither / No Opinion (0)	95	17.7%
Slightly Agree (+1)	121	22.5%
Moderately Agree (+2)	111	20.6%
Strongly Agree (+3)	92	17.1%
Total	539	100%
Mean / 95% C.I.	0.72	0.57 – 0.87
SUMMARIZED RESULTS		
DISAGREE	119	22.0%
NEITHER / NO OPINION	95	17.7%
AGREE	325	60.2%

Table 8.3. Negative impacts on wildlife should be considered when developing wind energy in South Dakota. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	25	4.7%
Moderately Disagree (-2)	26	4.8%
Slightly Disagree (-1)	77	14.3%
Neither / No Opinion (0)	103	19.0%
Slightly Agree (+1)	141	26.2%
Moderately Agree (+2)	96	17.8%
Strongly Agree (+3)	71	13.1%
Total	539	100%
Mean / 95% C.I.	0.63	0.50 – 0.77
SUMMARIZED RESULTS		
DISAGREE	128	23.8%
NEITHER / NO OPINION	103	19.0%
AGREE	308	57.2%

Table 8.4. I think people worry too much about possible environmental problems associated with pipelines for transporting oil across South Dakota. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	100	18.6%
Moderately Disagree (-2)	61	11.2%
Slightly Disagree (-1)	37	6.9%
Neither / No Opinion (0)	70	12.9%
Slightly Agree (+1)	110	20.5%
Moderately Agree (+2)	76	14.1%
Strongly Agree (+3)	85	15.8%
Total	539	100%
Mean / 95% C.I.	0.11	-0.07 – 0.28
SUMMARIZED RESULTS		
DISAGREE	198	36.8%
NEITHER / NO OPINION	70	12.9%
AGREE	271	50.3%

Section 9: Tables**Wildlife Management in South Dakota – Miscellaneous Questions
(Questions in Survey Version 1 – Appendix A)****How strongly do you disagree or agree with each statement?**

Table 9.1. I would support requirements to use non-toxic bullets for shooting prairie dogs to reduce lead poisoning of eagles, hawks and other wildlife. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	57	10.2%
Moderately Disagree (-2)	25	4.5%
Slightly Disagree (-1)	33	6.0%
Neither / No Opinion (0)	92	16.5%
Slightly Agree (+1)	109	19.4%
Moderately Agree (+2)	91	16.1%
Strongly Agree (+3)	154	27.4%
Total	562	100%
Mean / 95% C.I.	0.88	0.73 – 1.04
SUMMARIZED RESULTS		
DISAGREE	116	20.6%
NEITHER / NO OPINION	92	16.5%
AGREE	353	62.9%

Table 9.2. I am concerned about feral (wild), free ranging house cats killing native birds. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	43	7.7%
Moderately Disagree (-2)	57	10.1%
Slightly Disagree (-1)	56	9.9%
Neither / No Opinion (0)	171	30.5%
Slightly Agree (+1)	93	16.6%
Moderately Agree (+2)	74	13.2%
Strongly Agree (+3)	67	12.0%
Total	561	100%
Mean / 95% C.I.	0.26	0.11 – 0.40
SUMMARIZED RESULTS		
DISAGREE	156	27.8%
NEITHER / NO OPINION	171	30.5%
AGREE	234	41.7%

Table 9.3. I would support regulations to control commercial harvest and unregulated take of turtles, lizards, snakes, frogs and toads if information showed that their populations were declining to unacceptable levels. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	23	4.1%
Moderately Disagree (-2)	18	3.1%
Slightly Disagree (-1)	18	3.2%
Neither / No Opinion (0)	116	20.7%
Slightly Agree (+1)	138	24.6%
Moderately Agree (+2)	120	21.4%
Strongly Agree (+3)	128	22.8%
Total	562	100%
Mean / 95% C.I.	1.14	1.01 – 1.27
SUMMARIZED RESULTS		
DISAGREE	59	10.5%
NEITHER / NO OPINION	116	20.7%
AGREE	386	68.8%

Table 9.4. Rattlesnakes are an important component of South Dakota's assemblage of wildlife and should not be killed indiscriminately. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	76	13.5%
Moderately Disagree (-2)	43	7.6%
Slightly Disagree (-1)	86	15.4%
Neither / No Opinion (0)	121	21.6%
Slightly Agree (+1)	100	17.8%
Moderately Agree (+2)	82	14.6%
Strongly Agree (+3)	54	9.5%
Total	562	100%
Mean / 95% C.I.	0.05	-0.11 – 0.20
SUMMARIZED RESULTS		
DISAGREE	205	36.5%
NEITHER / NO OPINION	121	21.6%
AGREE	236	41.9%

Table 9.5. In general, efforts should be made to reduce predator numbers to help increase the numbers of game animals for hunters. Results of South Dakota citizen surveys conducted in 2012.

Opinion (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Strongly Disagree (-3)	70	12.5%
Moderately Disagree (-2)	51	9.0%
Slightly Disagree (-1)	113	20.2%
Neither / No Opinion (0)	136	24.3%
Slightly Agree (+1)	86	15.4%
Moderately Agree (+2)	45	8.0%
Strongly Agree (+3)	59	10.6%
Total	561	100%
Mean / 95% C.I.	-0.12	-0.27 – 0.02
SUMMARIZED RESULTS		
DISAGREE	234	41.7%
NEITHER / NO OPINION	136	24.3%
AGREE	191	34.0%

Section 10: Tables**Citizens' Rating of the Important Functions of Wetlands
(Questions in Survey Version 2 – Appendix A)**Table 10. Wetlands perform many functions: please rate the importance of each function to you. Results of South Dakota citizen surveys conducted in 2012.

How important is →	Reducing Flood Events	
Opinion (rating scale)	Number	Percent
Not Important (0)	18	3.4%
Slightly Important (1)	64	12.0%
Moderately Important (2)	201	37.4%
Very Important (3)	254	47.2%
Total	537	100%
Mean / 95% C.I.	2.28	2.22 – 2.35
How important is →	Providing Wildlife Habitat	
Opinion (rating scale)	Number	Percent
Not Important (0)	9	1.7%
Slightly Important (1)	62	11.5%
Moderately Important (2)	207	38.6%
Very Important (3)	259	48.3%
Total	537	100%
Mean / 95% C.I.	2.33	2.27 – 2.40
How important is →	Providing Recreational Opportunities	
Opinion (rating scale)	Number	Percent
Not Important (0)	52	9.6%
Slightly Important (1)	107	19.9%
Moderately Important (2)	212	39.5%
Very Important (3)	166	30.9%
Total	537	100%
Mean / 95% C.I.	1.92	1.84 – 2.00

Table continued on next page.

Table 10 – Continued. Wetlands perform many functions: please rate the importance of each function to you. Results of South Dakota citizen surveys conducted in 2012.

How important is →	Providing Clean Water	
Opinion (rating scale)	Number	Percent
Not Important (0)	7	1.4%
Slightly Important (1)	18	3.4%
Moderately Important (2)	110	20.4%
Very Important (3)	402	74.8%
Total	537	100%
Mean / 95% C.I.	2.69	2.64 – 2.74
How important is →	Providing Economic Opportunity	
Opinion (rating scale)	Number	Percent
Not Important (0)	40	7.5%
Slightly Important (1)	98	18.2%
Moderately Important (2)	222	41.3%
Very Important (3)	177	33.0%
Total	536	100%
Mean / 95% C.I.	2.00	1.92 – 2.07
SUMMARIZED RESULTS		
Wetland Function	Weighted Mean	95% C.I.
Providing Clean Water	2.69	2.64 – 2.74
Providing Wildlife Habitat	2.33	2.27 – 2.40
Reducing Flood Events	2.28	2.22 – 2.35
Providing Economic Opportunity	2.00	1.92 – 2.07
Providing Recreational Opportunities	1.92	1.84 – 2.00

Fishing and Hunting Participation

Table 11. Have you ever participated in recreational fishing? Results of South Dakota citizen surveys conducted in 2012.

Ever fish?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	147	13.5%
Yes	946	86.5%
Total	1,093	100%
If Yes, did you do any fishing during the past 2 years?		
Fished during the past 2 years?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	458	48.5%
Yes	487	51.5%
Total	946	100%

Table 12. Have you ever participated in hunting? Results of South Dakota citizen surveys conducted in 2012.

Ever hunt?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	442	40.5%
Yes	651	59.5%
Total	1,093	100%
If Yes, did you do any hunting during the past 2 years?		
Hunted during the past 2 years?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	254	39.0%
Yes	397	61.0%
Total	651	100%

Table 13. How important is fishing in relation to all your other types of recreation?¹ Results of South Dakota citizen surveys conducted in 2012.

Importance of fishing? (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
My MOST important recreational activity (4)	62	6.5%
VERY important, but not the most important (3)	169	17.9%
Moderately important (2)	188	19.9%
Slightly important (1)	179	19.0%
NOT important (0)	289	30.6%
No Opinion (missing)	58	6.1%
Total	946	100%
Mean / 95% C.I.	1.48	1.39 – 1.56

¹People who never fished did not answer this question.

Table 14. How important is hunting in relation to all your other types of recreation?¹ Results of South Dakota citizen surveys conducted in 2012.

Importance of hunting? (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
My MOST important recreational activity (4)	119	18.2%
VERY important, but not the most important (3)	152	23.4%
Moderately important (2)	154	23.6%
Slightly important (1)	91	14.0%
NOT important (0)	112	17.2%
No Opinion (missing)	23	3.5%
Total	651	100%
Mean / 95% C.I.	2.12	2.01 – 2.23

¹People who never hunted did not answer this question.

Wildlife Viewing Trips

Table 15. Have you ever taken any trips for which fish and wildlife viewing was the primary purpose of the trip? Results of South Dakota citizen surveys conducted in 2012.

Ever take trips primarily for viewing fish & wildlife?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	558	51.1%
Yes	533	48.9%
Total	1,091	100%
If Yes, did you take any trips during the past two years for which fish and wildlife viewing was the <u>primary</u> purpose of the trip?		
Taken viewing trips during the past 2 years?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	179	33.6%
Yes	354	66.4%
Total	533	100%
If Yes, were these wildlife viewing trips during the past 2 years...		
Where?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
In South Dakota	153	43.4%
Outside South Dakota	23	6.5%
Both in SD and outside SD	177	50.1%
Total	353	100%

Table 16. How important is taking wildlife viewing trips in relation to all your other types of recreation?¹ Results of South Dakota citizen surveys conducted in 2012.

Importance of wildlife viewing? (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
My MOST important recreational activity (4)	24	4.5%
VERY important, but not the most important (3)	124	23.2%
Moderately important (2)	190	35.7%
Slightly important (1)	129	24.2%
NOT important (0)	36	6.8%
No Opinion (missing)	30	5.7%
Total	533	100%
Mean / 95% C.I.	1.94	1.85 – 2.03

¹People who have never taken wildlife viewing trips did not answer this question.

Interest in Future Wildlife Viewing Trips & Wildlife Viewing Near Home

Table 17. How interested are you in taking recreational trips in the future for which fish and wildlife viewing is the primary purpose of the trip? Results of South Dakota citizen surveys conducted in 2012.

Interest in Wildlife Viewing Trips (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Not at all interested (0)	283	25.4%
Slightly interested (1)	368	33.0%
Moderately interested (2)	272	24.4%
Very interested (3)	171	15.3%
No Opinion (missing)	20	1.8%
Total	1,114	100%
Mean / 95% C.I.	1.30	1.24 – 1.36

Table 18. Do you feed birds near your home for viewing purposes? Results of South Dakota citizen surveys conducted in 2012.

Feed Birds?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	570	51.9%
Yes	527	48.1%
Total	1,097	100%

Table 19. Do you feed other wildlife near your home for viewing purposes? Results of South Dakota citizen surveys conducted in 2012.

Feed Other Wildlife?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	884	80.9%
Yes	209	19.1%
Total	1,094	100%

Table 20. How important is it to have wildlife viewing opportunities near your home? Results of South Dakota citizen surveys conducted in 2012.

Importance of having wildlife viewing opportunities. (scale)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Not at all important (0)	211	18.9%
Slightly important (1)	343	30.8%
Moderately important (2)	311	27.9%
Very important (3)	231	20.7%
No Opinion (missing)	18	1.6%
Total	1,114	100%
Mean / 95% C.I.	1.51	1.45 – 1.57

Demographic Information

Table 21. What is your gender and age?¹ Results of South Dakota citizen surveys conducted in 2012.

Gender	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Male	561	50.3%
Female	554	49.7%
Total	1,114	100%
Age Group		
Age Group	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
18 – 34	342	30.7%
35 – 49	273	24.5%
50 – 64	287	25.8%
65+	213	19.1%
Total	1,114	100%
Mean Years / 95% C.I.	48.5	47.5 – 49.5

¹Note: Sex and age were the two variables used to weight the survey data.

Table 22. About how long have you lived in South Dakota and what type of residence do you currently have? Results of South Dakota citizen surveys conducted in 2012.

Lived in S.D. (years)	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
0 — 4 years	56	5.1%
5 — 9 years	66	6.0%
10 — 19 years	107	9.6%
20 — 29 years	180	16.2%
30 or more years	703	63.2%
Total	1,113	100%
Mean Years / 95% C.I.	37.2	35.9 – 38.4
South Dakota General Public Opinion Survey - 2012		
Type of Residence	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Rural	267	24.1%
Small Town	353	31.9%
City	490	44.1%
Total	1,110	100%

Table 23. Where do you live in South Dakota? Results of South Dakota citizen surveys conducted in 2012.

Residence:	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
East River	807	73.3%
West River	294	26.7%
Total	1,101	100%
South Dakota General Public Opinion Survey - 2012		
GFP Region:	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
Region 1	265	24.0%
Region 2	96	8.7%
Region 3	542	49.2%
Region 4	199	18.1%
Total	1,101	100%

Table 24. Do you own land outside town/city and are you a farmer/rancher? Results of South Dakota citizen surveys conducted in 2012.

Own rural land?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	709	64.0%
Yes	398	36.0%
Total	1,108	100%
Farmer/rancher?		
Farmer/rancher?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
No	956	86.6%
Yes — but retired	35	3.1%
Yes — part-time	67	6.1%
Yes — full-time	46	4.2%
Total	1,104	100%

Table 25. How would you describe the community in which you were raised?

Community where raised?	South Dakota General Public Opinion Survey - 2012	
	Number	Percent
large city w/ 250,000+ people	46	4.2%
city w/ 100,000 — 249,999	84	7.6%
small city w/ 50,000 — 99,999	86	7.8%
town w/ 10,000 — 49,999	169	15.2%
small town/village < 10,000	389	35.1%
Farm/ranch or rural area	335	30.2%
Total	1,110	100%

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Appendix A-1

Copy of Version 1 of the mail questionnaire for the 2012 wildlife and environmental attitudes of South Dakota citizen survey.

[8 pages: 80 – 87]

WILDLIFE AND ENVIRONMENTAL ATTITUDES OF SOUTH DAKOTA CITIZENS – A 2012 SURVEY

Dear South Dakota Resident,

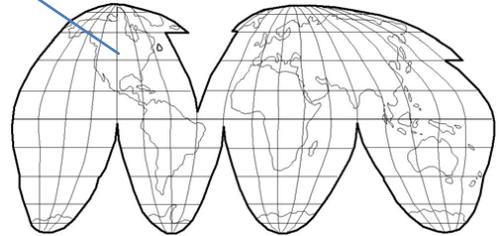
South Dakota State University on behalf of Game, Fish & Parks (GFP), is conducting a research study aimed at understanding how people feel about wildlife, wildlife management and environmental issues in the South Dakota. This survey is part of GFP five-year revision of South Dakota's Wildlife Action Plan. Information about the South Dakota Wildlife Action Plan and this survey can be found on the GFP website at:

<http://gfp.sd.gov/wildlife/management/plans/wildlife-action-plan.aspx>



For this study we are requesting your participation in this survey. Any adult residing at this address can complete the survey. The survey is designed to take approximately 15-20 minutes to complete. It is important to us that your survey be completed and returned in order to ensure that the results will truly represent the target population for this study. **Even if you have little knowledge about or interest in wildlife in South Dakota, your opinions are important to us.**

S.D. Citizen Survey – Wildlife Action Plan
Attention: Larry Gigliotti
South Dakota State University
Box 2140B, SNP 201C
Brookings, SD 57007



Survey Version 1:

General Questions about Fish & Wildlife Management in South Dakota

Please circle one number for your response to each question.

1. South Dakota has a great diversity (variety) of fish and wildlife. How important is it to you that South Dakota conserves/protects as much fish and wildlife as possible where appropriate?

<u>Not Important</u>	<u>Slightly Important</u>	<u>Moderately Important</u>	<u>Very Important</u>	<u>No Opinion</u>
1	2	3	4	5

2. How important do you think healthy fish and wildlife populations are to the economy and well-being of South Dakota residents?

<u>Not Important</u>	<u>Slightly Important</u>	<u>Moderately Important</u>	<u>Very Important</u>	<u>No Opinion</u>
1	2	3	4	5

3. How strongly do you disagree or agree with the following statement?

The diversity of fish and wildlife in an area is a sign of the quality of the natural environment.

<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
1	2	3	4	5	6	7

4. In general, how would you rate (GFP's) efforts to conserve and protect the diversity (variety) of fish and wildlife in South Dakota?

GFP's focus on wildlife diversity issues is...

<u>Far too Little</u>	<u>Moderately too Little</u>	<u>Slightly too Little</u>	<u>Just About the Right Amount</u>	<u>Slightly too Much</u>	<u>Moderately too Much</u>	<u>Far too Much</u>	<u>No Opinion</u>
1	2	3	4	5	6	7	8

5. Compared to other places where you could consider living, how would you rate life in South Dakota?

Would you say that life in South Dakota is...

<u>Very Much Worse</u>	<u>Moderately Worse</u>	<u>Slightly Worse</u>	<u>About the Same</u>	<u>Slightly Better</u>	<u>Moderately Better</u>	<u>Very Much Better</u>	<u>No Opinion</u>
1	2	3	4	5	6	7	8

6. In general, how much does fish and wildlife detract or contribute to a high "quality of life" for you?

<u>Detracts Greatly</u>	<u>Detracts Moderately</u>	<u>Detracts Slightly</u>	<u>Neither</u>	<u>Contributes Slightly</u>	<u>Contributes Moderately</u>	<u>Contributes Greatly</u>	<u>No Opinion</u>
1	2	3	4	5	6	7	8

Wildlife Value Orientation

Below are statements representing different ways that people might think about fish and wildlife. We are interested in knowing **your views about fish and wildlife**.

Please circle one number for your response to each question.

How strongly do you disagree or agree with...?	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neither</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
Humans should manage fish and wildlife populations so that humans benefit.	1	2	3	4	5	6	7
Animals should have rights similar to the rights of humans.	1	2	3	4	5	6	7
We should strive for a world where there is an abundance of fish and wildlife for hunting and fishing.	1	2	3	4	5	6	7
I view all living things as part of one big family.	1	2	3	4	5	6	7
Hunting does not respect the lives of animals.	1	2	3	4	5	6	7
I feel a strong emotional bond with animals.	1	2	3	4	5	6	7
The needs of humans should take priority over fish and wildlife protection.	1	2	3	4	5	6	7
I care about animals as much as I do other people.	1	2	3	4	5	6	7
Fish and wildlife are on earth primarily for people to use.	1	2	3	4	5	6	7
Hunting is cruel and inhumane to the animals.	1	2	3	4	5	6	7
We should strive for a world where humans and fish and wildlife can live side by side without fear.	1	2	3	4	5	6	7
I value the sense of companionship I receive from animals.	1	2	3	4	5	6	7
Wildlife are like my family and I want to protect them.	1	2	3	4	5	6	7
People who want to hunt should be provided the opportunity to do so.	1	2	3	4	5	6	7

Situation 1. Prairie wildlife conservation faces different challenges in different regions of South Dakota. In eastern South Dakota, where most of the prairie has been converted to cropland, one of the challenges is finding and conserving large enough landscapes of prairie vegetation and its associated wildlife. In western South Dakota, where there still are large tracks of native grasslands, the current challenges are more related to the specific needs of certain species like black-footed ferrets, swift fox, black-tailed prairie dogs, and sage grouse. *Please circle one number for your response to each question.*

Do you disagree or agree that...	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
Maintaining a healthy native prairie ecosystem in South Dakota is important to me.	1	2	3	4	5	6	7
Prairie dogs are an important component of native prairie ecosystems and need some degree of protection.	1	2	3	4	5	6	7
Prairie dogs are a destructive agricultural pest that should be eliminated from South Dakota.	1	2	3	4	5	6	7
I support using some money from hunting license fees for projects designed to conserve and enhance native prairie ecosystems and their associated wildlife.	1	2	3	4	5	6	7
I am concerned about the accelerated conversion of native prairie habitat.	1	2	3	4	5	6	7

Situation 2. Thirteen species of bats are found in South Dakota. Bats roost (rest/sleep) in trees, buildings, caves, mines, and crevices. Bats play an important role in nature because they feed on insects. Places where bats feed and roost are vulnerable to disturbance and destruction.

Do you disagree or agree that...	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
Maintaining healthy populations and diversity of bat species in South Dakota is important to me.	1	2	3	4	5	6	7
Bats pose an unacceptable health risk to people.	1	2	3	4	5	6	7
Bats are important and should have some legal protection from harm.	1	2	3	4	5	6	7
I would enjoy having bats living and feeding near my house.	1	2	3	4	5	6	7
I am concerned about the impact of diseases, such as white nose syndrome, on bat populations.	1	2	3	4	5	6	7

Questions about Mountain Lions (Cougars) in South Dakota:

Do you disagree or agree with the following?	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
Having a healthy, viable population of mountain lions in South Dakota is important to me.	1	2	3	4	5	6	7
I am concerned about mountain lions killing too many game (hunted) animals.	1	2	3	4	5	6	7
Having any mountain lions in South Dakota is too dangerous a risk to people.	1	2	3	4	5	6	7

Do you oppose or favor a regulated mountain lion season in South Dakota?	<u>Strongly Oppose</u>	<u>Moderately Oppose</u>	<u>Slightly Oppose</u>	<u>Neutral or No Opinion</u>	<u>Slightly Favor</u>	<u>Moderately Favor</u>	<u>Strongly Favor</u>
	1	2	3	4	5	6	7

Wildlife Management in South Dakota – Miscellaneous Questions

Do you disagree or agree with the following?	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
I would support requirements to use non-toxic bullets for shooting prairie dogs to reduce lead poisoning of eagles, hawks and other wildlife.	1	2	3	4	5	6	7
I am concerned about feral (wild), free ranging house cats killing native birds.	1	2	3	4	5	6	7
I would support regulations to control commercial harvest and unregulated take of turtles, lizards, snakes, frogs and toads if information showed that their populations were declining to unacceptable levels.	1	2	3	4	5	6	7
Rattlesnakes are an important component of South Dakota's assemblage of wildlife and should not be killed indiscriminately.	1	2	3	4	5	6	7
In general, efforts should be made to reduce predator numbers to help increase the numbers of game animals for hunters.	1	2	3	4	5	6	7

Hunting & Fishing Participation *(Please check your responses for each question).*

Have you ever participated in recreational fishing? No Yes

→ If Yes,

<p>a) Did you do any fishing during the past 2 years? <input type="checkbox"/> No <input type="checkbox"/> Yes</p> <p>b) How important is <u>fishing</u> in relation to all your other types of recreation?</p> <ul style="list-style-type: none"><input type="checkbox"/> 1. my MOST important recreational activity<input type="checkbox"/> 2. VERY important, but not the most important<input type="checkbox"/> 3. MODERATELY important<input type="checkbox"/> 4. SLIGHTLY important<input type="checkbox"/> 5. NOT important<input type="checkbox"/> 6. No Opinion

Have you ever participated in recreational hunting? No Yes

→ If Yes,

<p>a) Did you do any hunting during the past 2 years? <input type="checkbox"/> No <input type="checkbox"/> Yes</p> <p>b) How important is <u>hunting</u> in relation to all your other types of recreation?</p> <ul style="list-style-type: none"><input type="checkbox"/> 1. my MOST important recreational activity<input type="checkbox"/> 2. VERY important, but not the most important<input type="checkbox"/> 3. MODERATELY important<input type="checkbox"/> 4. SLIGHTLY important<input type="checkbox"/> 5. NOT important<input type="checkbox"/> 6. No Opinion

Wildlife Viewing (Please check your responses for each question).

Have you ever taken any recreational trips for which fish and wildlife viewing was the primary purpose of the trip? No Yes

→ If Yes,

a) Did you take any recreational trips during the past 2 years for which fish and wildlife viewing was the primary purpose of the trip? No Yes

b) Were these wildlife viewing trips during the past 2 years...

in South Dakota outside South Dakota Both

c) How important is taking wildlife viewing trips in relation to all your other types of recreation?

1. my MOST important recreational activity

2. VERY important, but not the most important

3. MODERATELY important

4. SLIGHTLY important

5. NOT important

6. No Opinion

	<u>Not at all</u> <u>Interested</u>	<u>Slightly</u> <u>Interested</u>	<u>Moderately</u> <u>Interested</u>	<u>Very</u> <u>Interested</u>
How interested are you in taking recreational trips in the future for which fish and wildlife viewing is the primary purpose of the trip?	1	2	3	4

Do you feed birds near your home for viewing purposes? No Yes

Do you feed other wildlife near your home for viewing purposes? No Yes

	<u>Not at all</u> <u>Important</u>	<u>Slightly</u> <u>Important</u>	<u>Moderately</u> <u>Important</u>	<u>Very</u> <u>Important</u>
How important is it to have wildlife viewing opportunities near your home?	1	2	3	4

Information about Yourself

The following demographic information will be used to help make general conclusions about South Dakota residents. Your responses will remain completely confidential.

1. What is your age and gender? _____years MALE FEMALE
2. About how long have you lived in South Dakota? _____ Years OR Less than one year
(Write response or check box indicating less than one year.)
3. Which South Dakota county do you live in? _____
4. Is your current residence: RURAL
 SMALL TOWN
 CITY (greater than 10,000) (the following S.D. cities are greater than 10,000: Sioux Falls, Rapid City, Aberdeen, Watertown, Brookings, Pierre-Ft. Pierre, Mitchell, Yankton, Huron, Vermillion)
5. Do you own land outside town/city? No Yes
6. Are you a farmer/rancher? No
 Yes – but retired
 Yes – Part-time
 Yes – Full-time
7. How would you describe the community in which you were raised?
If more than one area, please check the place where you lived the longest while growing up.

<input type="checkbox"/> 1. a large city with 250,000 or more people	<input type="checkbox"/> 4. a town with 10,000 to 49,999 people
<input type="checkbox"/> 2. a city with 100,000 to 249,999 people	<input type="checkbox"/> 5. a small town/village with less than 10,000 people
<input type="checkbox"/> 3. a small city with 50,000 to 99,999 people	<input type="checkbox"/> 6. a farm/ranch or rural area

THANK YOU VERY MUCH FOR YOUR VALUABLE TIME COMPLETING THIS SURVEY.

Please return your questionnaire using the addressed, pre-paid return envelope provided.

Summarized results from this survey will be posted on GFP's Web-site.

Appendix A-2

Copy of Version 2 of the mail questionnaire used for the 2012 wildlife and environmental attitudes of South Dakota citizen survey.

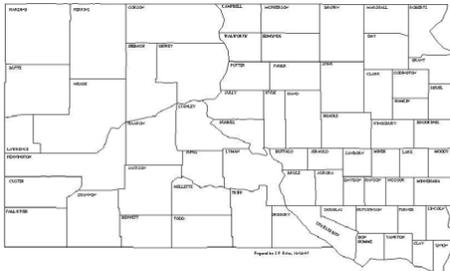
[8 pages: 89 – 95]

WILDLIFE AND ENVIRONMENTAL ATTITUDES OF SOUTH DAKOTA CITIZENS – A 2012 SURVEY

Dear South Dakota Resident,

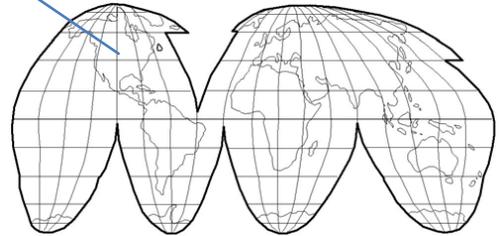
South Dakota State University on behalf of Game, Fish & Parks (GFP), is conducting a research study aimed at understanding how people feel about wildlife, wildlife management and environmental issues in the South Dakota. This survey is part of GFP five-year revision of South Dakota's Wildlife Action Plan. Information about the South Dakota Wildlife Action Plan and this survey can be found on the GFP website at:

<http://gfp.sd.gov/wildlife/management/plans/wildlife-action-plan.aspx>



For this study we are requesting your participation in this survey. Any adult residing at this address can complete the survey. The survey is designed to take approximately 15-20 minutes to complete. It is important to us that your survey be completed and returned in order to ensure that the results will truly represent the target population for this study. **Even if you have little knowledge about or interest in wildlife in South Dakota, your opinions are important to us.**

S.D. Citizen Survey – Wildlife Action Plan
Attention: Larry Gigliotti
South Dakota State University
Box 2140B, SNP 201C
Brookings, SD 57007



Survey Version 2:

General Questions about Fish & Wildlife Management in South Dakota

Please circle one number for your response to each question.

1. South Dakota has a great diversity (variety) of fish and wildlife. How important is it to you that South Dakota conserves/protects as much fish and wildlife as possible where appropriate?

<u>Not Important</u>	<u>Slightly Important</u>	<u>Moderately Important</u>	<u>Very Important</u>	<u>No Opinion</u>
1	2	3	4	5

2. How important do you think healthy fish and wildlife populations are to the economy and well-being of South Dakota residents?

<u>Not Important</u>	<u>Slightly Important</u>	<u>Moderately Important</u>	<u>Very Important</u>	<u>No Opinion</u>
1	2	3	4	5

3. How strongly do you disagree or agree with the following statement?

The diversity of fish and wildlife in an area is a sign of the quality of the natural environment.

<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
1	2	3	4	5	6	7

4. In general, how would you rate (GFP's) efforts to conserve and protect the diversity (variety) of fish and wildlife in South Dakota?

GFP's focus on wildlife diversity issues is...

<u>Far too Little</u>	<u>Moderately too Little</u>	<u>Slightly too Little</u>	<u>Just About the Right Amount</u>	<u>Slightly too Much</u>	<u>Moderately too Much</u>	<u>Far too Much</u>	<u>No Opinion</u>
1	2	3	4	5	6	7	8

5. Compared to other places where you could consider living, how would you rate life in South Dakota?

Would you say that life in South Dakota is...

<u>Very Much Worse</u>	<u>Moderately Worse</u>	<u>Slightly Worse</u>	<u>About the Same</u>	<u>Slightly Better</u>	<u>Moderately Better</u>	<u>Very Much Better</u>	<u>No Opinion</u>
1	2	3	4	5	6	7	8

6. In general, how much does fish and wildlife detract or contribute to a high "quality of life" for you?

<u>Detracts Greatly</u>	<u>Detracts Moderately</u>	<u>Detracts Slightly</u>	<u>Neither</u>	<u>Contributes Slightly</u>	<u>Contributes Moderately</u>	<u>Contributes Greatly</u>	<u>No Opinion</u>
1	2	3	4	5	6	7	8

Wildlife Value Orientation

Below are statements representing different ways that people might think about fish and wildlife. We are interested in knowing **your views about fish and wildlife**.

Please circle one number for your response to each question.

How strongly do you disagree or agree with...?	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neither</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
Humans should manage fish and wildlife populations so that humans benefit.	1	2	3	4	5	6	7
Animals should have rights similar to the rights of humans.	1	2	3	4	5	6	7
We should strive for a world where there is an abundance of fish and wildlife for hunting and fishing.	1	2	3	4	5	6	7
I view all living things as part of one big family.	1	2	3	4	5	6	7
Hunting does not respect the lives of animals.	1	2	3	4	5	6	7
I feel a strong emotional bond with animals.	1	2	3	4	5	6	7
The needs of humans should take priority over fish and wildlife protection.	1	2	3	4	5	6	7
I care about animals as much as I do other people.	1	2	3	4	5	6	7
Fish and wildlife are on earth primarily for people to use.	1	2	3	4	5	6	7
Hunting is cruel and inhumane to the animals.	1	2	3	4	5	6	7
We should strive for a world where humans and fish and wildlife can live side by side without fear.	1	2	3	4	5	6	7
I value the sense of companionship I receive from animals.	1	2	3	4	5	6	7
Wildlife are like my family and I want to protect them.	1	2	3	4	5	6	7
People who want to hunt should be provided the opportunity to do so.	1	2	3	4	5	6	7

Situation 1. There has been a lot of talk recently about climate change (global warming) and its potential impacts. Climate change refers to changes occurring over approximately the past 100 years, not changes in climate over geological time periods. We are interested in learning **your views about climate change.**

Do you disagree or agree with the following?	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
I believe that climate change is currently affecting South Dakota.	1	2	3	4	5	6	7
I believe that climate change is a serious threat that requires changes in current life styles.	1	2	3	4	5	6	7
I support regulations to reduce carbon emissions to address climate change.	1	2	3	4	5	6	7
I don't believe that climate change will result in any negative impact on wildlife populations in South Dakota.	1	2	3	4	5	6	7

Beliefs concerning the causes of climate change generally range from totally natural causes to totally human activities or some approximate combination of both. Please indicate your personal belief about the causes of climate change (check this box if you have no opinion).

Climate change is due to natural cyclic changes in weather.	<input type="checkbox"/>						
	1	2	3	4	5	6	7
Climate change is the result of activities by humans.			About half of each.				

Situation 2. Finding and developing alternative sources of energy as well as concerns over associated impacts of these activities on wildlife and the environment are often topics of discussion in South Dakota. We are interested in learning **your views about energy development in South Dakota.**

Do you disagree or agree with the following?	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
Wildlife impacts and grassland habitat loss should be considered when increasing biofuel production.	1	2	3	4	5	6	7
I support efforts to increase ethanol production in South Dakota.	1	2	3	4	5	6	7
Negative impacts on wildlife should be considered when developing wind energy in South Dakota.	1	2	3	4	5	6	7
I think people worry too much about possible environmental problems associated with pipelines for transporting oil across South Dakota.	1	2	3	4	5	6	7

Situation 3. Some wildlife management issues place wildlife managers in conflicting roles of making decisions to increase numbers of rare species while also providing satisfactory numbers of game animals and game fish for hunters and anglers; below are a couple of examples. We are interested in learning **your views**.

Do you disagree or agree with the following?	<u>Strongly Disagree</u>	<u>Moderately Disagree</u>	<u>Slightly Disagree</u>	<u>Neutral or No Opinion</u>	<u>Slightly Agree</u>	<u>Moderately Agree</u>	<u>Strongly Agree</u>
I would be concerned about River Otters taking too many game fish if their populations were to increase.	1	2	3	4	5	6	7
I would support releasing River Otters into suitable habitats in South Dakota.	1	2	3	4	5	6	7
I support efforts by GFP to increase Osprey numbers in South Dakota.	1	2	3	4	5	6	7
I would be concerned about Osprey taking too many game fish if their populations were to increase.	1	2	3	4	5	6	7
The Missouri River should not be managed for threatened or endangered species, such as terns and plovers, if it would in any way decrease game fish populations.	1	2	3	4	5	6	7
In general, should wildlife management decisions favor game animals/fish OR rare wildlife species.	<u>Favor Game Species</u>			<u>Balanced Approach</u>	<u>Favor Rare Wildlife Species</u>		
	<u>Strongly</u>	<u>Moderately</u>	<u>Slightly</u>		<u>Slightly</u>	<u>Moderately</u>	<u>Strongly</u>
	1	2	3	4	5	6	7

Wetlands perform many functions: please rate the importance of each function to you.

How important is...	<u>Not Important</u>	<u>Slightly Important</u>	<u>Moderately Important</u>	<u>Very Important</u>
Reducing flood events	0	1	2	3
Providing wildlife habitat	0	1	2	3
Providing recreational opportunities	0	1	2	3
Providing clean water	0	1	2	3
Providing economic opportunity	0	1	2	3

Hunting & Fishing Participation *(Please check your responses for each question).*

Have you ever participated in recreational fishing? No Yes

→ If Yes,

a) Did you do any fishing during the past 2 years? No Yes

b) How important is fishing in relation to all your other types of recreation?

- 1. my MOST important recreational activity
- 2. VERY important, but not the most important
- 3. MODERATELY important
- 4. SLIGHTLY important
- 5. NOT important
- 6. No Opinion

Have you ever participated in recreational hunting? No Yes

→ If Yes,

a) Did you do any hunting during the past 2 years? No Yes

b) How important is hunting in relation to all your other types of recreation?

- 1. my MOST important recreational activity
- 2. VERY important, but not the most important
- 3. MODERATELY important
- 4. SLIGHTLY important
- 5. NOT important
- 6. No Opinion

Wildlife Viewing (Please check your responses for each question).

Have you ever taken any recreational trips for which fish and wildlife viewing was the primary purpose of the trip? No Yes

→ If Yes,

a) Did you take any recreational trips during the past 2 years for which fish and wildlife viewing was the primary purpose of the trip? No Yes

b) Were these wildlife viewing trips during the past 2 years...
 in South Dakota outside South Dakota Both

c) How important is taking wildlife viewing trips in relation to all your other types of recreation?
 1. my MOST important recreational activity
 2. VERY important, but not the most important
 3. MODERATELY important
 4. SLIGHTLY important
 5. NOT important
 6. No Opinion

	<u>Not at all Interested</u>	<u>Slightly Interested</u>	<u>Moderately Interested</u>	<u>Very Interested</u>
How interested are you in taking recreational trips in the future for which fish and wildlife viewing is the primary purpose of the trip?	1	2	3	4

Do you feed birds near your home for viewing purposes? No Yes

Do you feed other wildlife near your home for viewing purposes? No Yes

	<u>Not at all Important</u>	<u>Slightly Important</u>	<u>Moderately Important</u>	<u>Very Important</u>
How important is it to have wildlife viewing opportunities near your home?	1	2	3	4

Information about Yourself

The following demographic information will be used to help make general conclusions about South Dakota residents. Your responses will remain completely confidential.

1. What is your age and gender? _____ years MALE FEMALE

2. About how long have you lived in South Dakota? _____ Years
Please round your answer to the nearest whole number of years (if less than 6 months, enter 0).

3. Which South Dakota county do you live in? _____

4. Is your current residence: RURAL
 SMALL TOWN
 CITY (greater than 10,000) (the following S.D. cities are greater than 10,000: Sioux Falls, Rapid City, Aberdeen, Watertown, Brookings, Pierre-Ft. Pierre, Mitchell, Yankton, Huron, Vermillion)

5. Do you own land outside town/city? No Yes

6. Are you a farmer/rancher? No
 Yes – but retired
 Yes – Part-time
 Yes – Full-time

7. How would you describe the community in which you were raised?
If more than one area, please check the place where you lived the longest while growing up.

<input type="checkbox"/> 1. a large city with 250,000 or more people	<input type="checkbox"/> 4. a town with 10,000 to 49,999 people
<input type="checkbox"/> 2. a city with 100,000 to 249,999 people	<input type="checkbox"/> 5. a small town/village with less than 10,000 people
<input type="checkbox"/> 3. a small city with 50,000 to 99,999 people	<input type="checkbox"/> 6. a farm/ranch or rural area

THANK YOU VERY MUCH FOR YOUR VALUABLE TIME COMPLETING THIS SURVEY.

Please return your questionnaire using the addressed, pre-paid return envelope provided.

Summarized results from this survey will be posted on GFP's Web-site.

Appendix A-3

Copy of cover letters and post card reminders used for the 2012 wildlife and environmental attitudes of South Dakota citizen survey.



Dear South Dakota Resident,

South Dakota State University on behalf of Game, Fish & Parks (GFP), is conducting a research study aimed at understanding how people feel about wildlife, wildlife management and environmental issues in the South Dakota. This survey is part of GFP's five-year revision of South Dakota's Wildlife Action Plan. Information about the South Dakota Wildlife Action Plan and this survey can be found on the GFP website at: <http://gfp.sd.gov/wildlife/management/plans/wildlife-action-plan.aspx>.

For this study we are requesting your participation in the survey included in this mailing. Any adult residing at this address can complete the survey. The survey is designed to take approximately 15-20 minutes to complete. It is important to us that your survey be completed and returned in order to ensure that the results will truly represent the target population for this study. **Even if you have little knowledge about or interest in wildlife in South Dakota, your input is important to us.**

Your participation in this survey is voluntary (returning a blank survey will let us know that you do not want to participate and we will not send any reminders or follow-up requests to participate in this survey). You may leave any question or portion of the survey blank that you do not want to answer. Your responses will remain **completely confidential**. Your name and contact information will never in any way be released or associated with your responses in reporting of the data. In addition, there are no known risks or direct personal benefits associated with your participation.

In accordance with federal regulations, the SDSU Human Research Committee has reviewed and approved this study. If you have *questions about your rights as a participant in this research*, you may contact the SDSU Research Compliance Coordinator at (605) 688-6975. The questionnaire has an identification number affiliated with it to ensure that we do not bother you with subsequent mailings or phone calls related to this study effort.

We would be happy to answer any *questions you might have regarding the study*. Please feel free to contact us by phone or email (details provided below). Thank you very much for your assistance.
Sincerely,

Larry Gigliotti (for questions about the survey)
South Dakota State University
Box 2140B, SNP 201C
Brookings, SD 57007
(605) 688-6717
Larry.Gigliotti@sdstate.edu

EILEEN DOWD STUKEL (for questions about the plan)
523 E. Capitol
Pierre, SD 57501
(605) 773-4229
eileen.dowdstukel@state.sd.us



Dear South Dakota Resident,

South Dakota State University on behalf of Game, Fish & Parks (GFP), is conducting a research study aimed at understanding how people feel about wildlife, wildlife management and environmental issues in the South Dakota. This survey is part of GFP's five-year revision of South Dakota's Wildlife Action Plan. Information about the South Dakota Wildlife Action Plan and this survey can be found on the GFP website at: <http://gfp.sd.gov/wildlife/management/plans/wildlife-action-plan.aspx>.

Not long ago, we mailed your household a survey for this study. As of today, we have not yet received your completed questionnaire. If you have already completed and returned it to us, please disregard this notice and accept our sincere thanks. Enclosed is another copy of the survey which is designed to take approximately 15-20 minutes to complete and should be filled out by someone at least 18 years of age. It is important to us that your survey be completed and returned in order to ensure that the results will truly represent the target population for this study. **Even if you have little knowledge about or interest in wildlife in South Dakota, your input is important to us.**

Your participation in this survey is voluntary (returning a blank survey will let us know that you do not want to participate and we will not send any reminders or follow-up requests to participate in this survey). You may leave any question or portion of the survey blank that you do not want to answer. Your responses will remain **completely confidential**. Your name and contact information will never in any way be released or associated with your responses in reporting of the data. In addition, there are no known risks or direct personal benefits associated with your participation.

In accordance with federal regulations, the SDSU Human Research Committee has reviewed and approved this study. If you have *questions about your rights as a participant in this research*, you may contact the SDSU Research Compliance Coordinator at (605) 688-6975. The questionnaire has an identification number affiliated with it to ensure that we do not bother you with subsequent mailings or phone calls related to this study effort.

Deadline for returning your survey is March 23. Thank you very much for your assistance.

Sincerely,

Larry Gigliotti (*for questions about the survey plan*)
 South Dakota State University
 Box 2140B, SNP 201C
 Brookings, SD 57007
 (605) 688-6717
 Larry.Gigliotti@sdstate.edu

Eileen Dowd Stukel (*for questions about the plan*)
 523 E. Capitol
 Pierre, SD 57501
 (605) 773-4229
 eileen.dowdstukel@state.sd.us

Post Card Reminder:

February 15, 2012

Last week I mailed you a survey about wildlife and environmental issues. This postcard reminder is being sent to ask you to complete and return your survey as soon as possible using the pre-paid return envelope provided. If you have already completed and returned it to us, please accept our sincere thanks.

YOUR response is needed to provide an accurate assessment of opinions held by South Dakota citizens. When the survey is completed a report of summarized results will be posted on the South Dakota Game, Fish and Parks web-site.

Please try to respond to the first mailing of the survey by February 27. If by some chance you did not receive the questionnaire, or if it got misplaced, don't worry (just wait and watch your mail) as a second questionnaire will be mailed to you in a couple of weeks if we don't receive your completed questionnaire in the mail.

Larry Gigliotti

Appendix B2

Questionnaire used in the Web-based survey of South Dakota citizens (2012).

[12 pages: 101 –112]

General Questions about Fish and Wildlife Management in South Dakota

***1. South Dakota has a great diversity (variety) of fish and wildlife. How important is it to you that South Dakota conserves/protects as much fish and wildlife as possible where appropriate?**

- Not Important
- Slightly Important
- Moderately Important
- Very Important
- No Opinion

***2. How important do you think healthy fish and wildlife populations are to the economy and well-being of South Dakota residents?**

- Not Important
- Slightly Important
- Moderately Important
- Very Important
- No Opinion

***3. How strongly do you disagree or agree with the following statement?**

The diversity of fish and wildlife in an area is a sign of the quality of the natural environment.

- Strongly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral or No Opinion
- Slightly Agree
- Moderately Agree
- Strongly Agree

Wildlife Values - Final

***4. In general, how would you rate Game, Fish and Parks' (GFP) efforts to conserve and protect the diversity (variety) of fish and wildlife in South Dakota?**

GFP's focus on wildlife diversity issues is...

- Far too Little
- Moderately too Little
- Slightly too Little
- Just About the Right Amount
- Slightly too Much
- Moderately too Much
- Far too Much
- No Opinion

***5. Compared to other places where you could consider living, how would you rate life in South Dakota?**

Would you say that life in South Dakota is...

- Very Much Worse
- Moderately Worse
- Slightly Worse
- About the Same
- Slightly Better
- Moderately Better
- Very Much Better
- No Opinion

Wildlife Values - Final

***6. In general, how much does fish and wildlife detract or contribute to a high "quality of life" for you?**

- Detracts Greatly
- Detracts Moderately
- Detracts Slightly
- Neither
- Contributes Slightly
- Contributes Moderately
- Contributes Greatly
- No Opinion

Wildlife Values

Below are statements representing different ways that people might think about fish and wildlife. We are interested in knowing **your views about fish and wildlife**.

Please answer each of the following 14 questions.

Wildlife Values - Final

*7. How strongly do you disagree or agree with each statement?

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither - No Opinion	Slightly Agree	Moderately Agree	Strongly Agree
Humans should manage fish and wildlife populations so that humans benefit.	<input type="radio"/>						
Animals should have rights similar to the rights of humans.	<input type="radio"/>						
We should strive for a world where there is an abundance of fish and wildlife for hunting and fishing.	<input type="radio"/>						
I view all living things as part of one big family.	<input type="radio"/>						
Hunting does not respect the lives of animals.	<input type="radio"/>						
I feel a strong emotional bond with animals.	<input type="radio"/>						
The needs of humans should take priority over fish and wildlife populations.	<input type="radio"/>						
I care about animals as much as I do other people.	<input type="radio"/>						
Fish and wildlife are on earth primarily for people to use.	<input type="radio"/>						
Hunting is cruel and inhumane to the animals.	<input type="radio"/>						
We should strive for a world where humans and fish and wildlife can live side by side without fear.	<input type="radio"/>						
I value the sense of companionship I receive from animals.	<input type="radio"/>						
Wildlife are like my family and I want to protect them.	<input type="radio"/>						
People who want to hunt should be provided the opportunity to do so.	<input type="radio"/>						

Prairie Ecosystem

Prairie wildlife conservation faces different challenges in different regions of South Dakota. In eastern South Dakota, where most of the prairie has been converted to cropland, one of the challenges is finding and conserving large enough landscapes of prairie vegetation and its associated wildlife. In western South Dakota, where there still are large tracks of native grasslands, the current challenges are more related to the specific needs of certain species like black-footed ferrets, swift fox, black-tailed prairie dogs, and sage grouse.

Wildlife Values - Final

We are interested in learning **your views about prairie ecosystem issues.**

*8. How strongly do you disagree or agree with each statement?

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither - No Opinion	Slightly Agree	Moderately Agree	Strongly Agree
Maintaining a native prairie ecosystem in South Dakota is important to me.	<input type="radio"/>						
Prairie dogs are an important component of native ecosystems and need some degree of protection.	<input type="radio"/>						
Prairie dogs are a destructive agricultural pest that should be eliminated from South Dakota	<input type="radio"/>						
I support using some money from hunting license fees for projects designed to conserve and enhance native prairie ecosystems and their associated wildlife.	<input type="radio"/>						
I am concerned about the accelerated conversion of native prairie habitat.	<input type="radio"/>						

South Dakota Bats

Thirteen species of bats are found in South Dakota. Bats roost (rest/sleep) in trees, buildings, caves, mines, and crevices. Bats play an important role in nature because they feed on insects. Places where bats feed and roost are vulnerable to disturbance and destruction.

We are interested in learning **your views about bats in South Dakota.**

*9. How strongly do you disagree or agree with each statement?

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither - No Opinion	Slightly Agree	Moderately Agree	Strongly Agree
Maintaining healthy populations and diversity of bat species in South Dakota is important to me..	<input type="radio"/>						
I would enjoy having bats living and feeding near my house.	<input type="radio"/>						

Mountain Lions in South Dakota

Wildlife Values - Final

*10. How strongly do you disagree or agree with each statement?

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither - No Opinion	Slightly Agree	Moderately Agree	Strongly Agree
Having a healthy, viable population of mountain lions in South Dakota is important to me.	<input type="radio"/>						
I am concerned about mountain lions killing too many game (hunted) animals.	<input type="radio"/>						
Having any mountain lions in South Dakota is too dangerous a risk to people.	<input type="radio"/>						

*11. Do you oppose or favor a regulated mountain lion season in South Dakota?

- Strongly Oppose
- Moderately Oppose
- Slightly Oppose
- Neutral or No Opinion
- Slightly Favor
- Moderately Favor
- Strongly Favor

Climate Change

There has been a lot of talk recently about climate change (global warming) and its potential impacts. Climate change refers to changes occurring over approximately the past 100 years, not changes in climate over geological time periods.

We are interested in learning **your views about climate change**.

Wildlife Values - Final

*12. How strongly do you disagree or agree with each statement?

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither - No Opinion	Slightly Agree	Moderately Agree	Strongly Agree
I believe that climate change is currently affecting South Dakota.	<input type="radio"/>						
I believe that climate changes is a serious threat that requires changes in current life styles.	<input type="radio"/>						
I support regulations to reduce carbon emissions to address climate change.	<input type="radio"/>						
I don't believe that climate change will result in any negative impacts on wildlife populations in South Dakota.	<input type="radio"/>						

*13. Beliefs concerning the causes of climate change generally range from totally natural causes to totally human activities or some approximate combination of both. On this scale of 1 (all climate change is due to natural causes) to 7 (all climate change is from human activities), please indicate your personal belief about the causes of climate change (or check number 8 if you have no opinion).

- 1 - Climate change is due to natural causes.
- 2
- 3
- 4 - about half of each cause
- 5
- 6
- 7 - Climate change is the full result of activities by humans.
- 8 - No opinion

Fishing Participation

*14. Have you ever participated in recreational fishing?

- No
- Yes

Fishing during the past 2 years

Wildlife Values - Final

***15. Did you do any fishing during the past 2 years?**

- No
- Yes

***16. How important is fishing in relation to all your other types of recreation?**

Fishing is...

- my MOST important recreational activity
- VERY important, but not the most important
- MODERATELY important
- SLIGHTLY important
- NOT important
- No Opinion

Hunting Participation

***17. Have you ever participated in hunting?**

- No
- Yes

Hunting during the past 2 years

***18. Did you do any hunting during the past 2 years?**

- No
- Yes

Wildlife Values - Final

***19. How important is hunting in relation to all your other types of recreation?**

Hunting is...

- my MOST important recreational activity
- VERY important, but not the most important
- MODERATELY important
- SLIGHTLY important
- NOT important
- No Opinion

Wildlife Viewing Trips

***20. Have you ever taken any trips for which fish and wildlife viewing was the primary purpose of the trip?**

- No
- Yes

Wildlife viewing during the past 2 years

***21. Did you take any trips during the past two years for which fish and wildlife viewing was the primary purpose of the trip?**

- No
- Yes

***22. Were these wildlife viewing trips during the past 2 years...**

- in South Dakota
- outside South Dakota
- Both in South Dakota and outside South Dakota

Importance of wildlife viewing trips

Wildlife Values - Final

***23. How important is taking wildlife viewing trips in relation to all your other types of recreation?**

Wildlife viewing is...

- my MOST important recreational activity
- VERY important, but not the most important
- MODERATELY important
- SLIGHTLY important
- NOT important
- No Opinion

Interest in Future Wildlife Viewing Trips & Wildlife Viewing Near Your Home

***24. How interested are you in taking recreational trips in the future for which fish and wildlife viewing is the primary purpose of the trip?**

- Not at all Interested
- Slightly Interested
- Moderately Interested
- Very Interested
- No Opinion

***25. Do you feed birds near your home for viewing purposes?**

- No
- Yes

***26. Do you feed other wildlife near your home for viewing purposes?**

- No
- Yes

Wildlife Values - Final

*27. How important is it to have wildlife viewing opportunities near your home?

- Not at all Important
- Slightly Important
- Moderately Important
- Very Important
- No Opinion

Information About Yourself

The following demographic information will be used to help make general conclusions about South Dakota residents. Your responses will remain confidential.

The questions in this section do not require an answer, so you may skip any question that you do not wish to answer.

28. What is your age?

Please round your age to the nearest whole number.

Years

29. What is your gender?

- Male
- Female

30. About how long have you lived in South Dakota?

Please round your answer to the nearest whole number of years (if less than 6 months, enter 0).

Years living in South Dakota

31. Which South Dakota county do you live in?

32. Is your residence...

- Rural
- Small Town
- City (greater than 10,000) (the following S.D. cities are greater than 10,000: Sioux Falls, Rapid City, Aberdeen, Watertown, Brookings, Pierre-Ft.Pierre, Mitchell, Yankton, Huron, Vermillion)

Wildlife Values - Final

33. Do you own land outside town/city?

- No
- Yes

34. Are you a farmer/rancher?

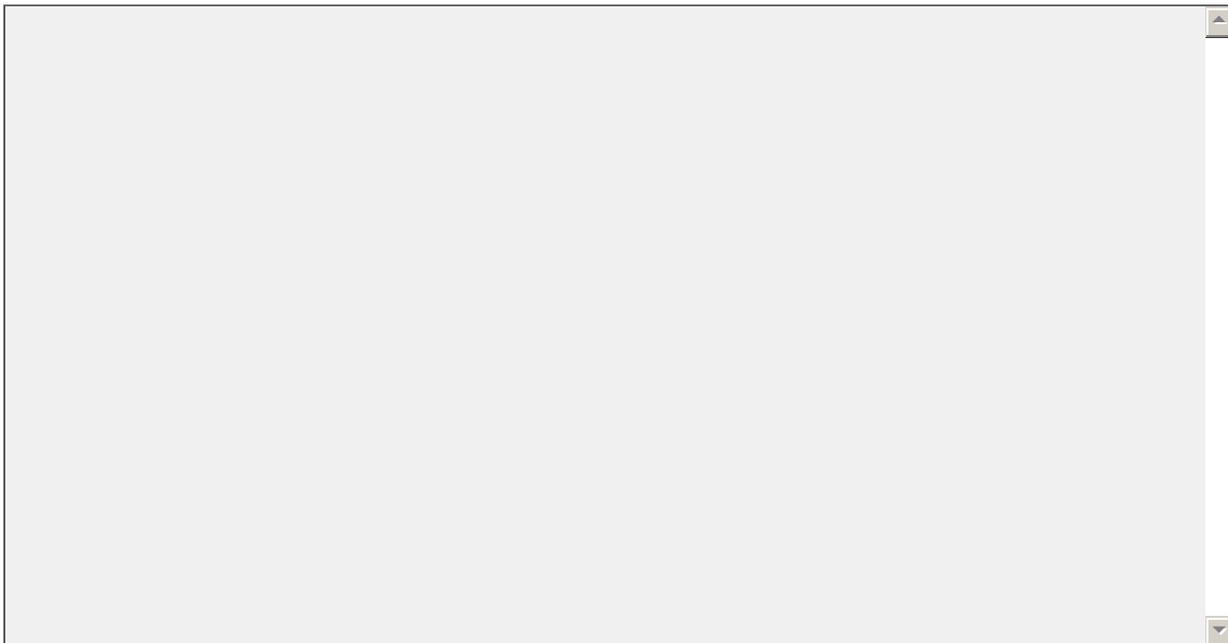
- No
- Yes - but retired
- Yes - part-time
- Yes - full-time

35. How would you describe the community in which you were raised?

If more than one area, please check the place where you lived the longest by age 18.

- a large city with 250,000 or more people
- a city with 100,000 to 249,999 people
- a small city with 50,000 to 99,999
- a town with 10,000 to 49,999 people
- a small town/village with less than 10,000 people
- a farm/ranch or rural area

36. You may use this space for optional comments.



Appendix C. Calculations for sex-age weighting of the citizen survey data (2012).

Males (Age)

Age-Group	Population %	Sample %	Formula	Weight
18 – 34	31.8	6.6	31.8 / 6.6	4.818
35 – 49	25.2	22.7	25.2 / 22.7	1.110
50 – 64	26.2	40.6	26.2 / 40.6	0.645
65+	16.8	30.1	16.8 / 30.1	0.558

Females (Age)

Age-Group	Population %	Sample %	Formula	Weight
18 – 34	29.2	5.9	29.2 / 5.9	4.949
35 – 49	24.1	15.7	24.1 / 15.7	1.535
50 – 64	25.3	31.1	25.3 / 31.1	0.814
65+	21.4	47.2	21.4 / 47.2	0.453

Sex weight

Sex	Population %	Sample %	Formula	Weight
Male	50.0	74.2	50 / 74.2	0.674
Female	50.0	25.8	50 / 25.8	1.938

Sex X Age weights

Male Age-Group	Age Weight	times	Sex Weight	Sex-Age Weight
18 – 34	4.818	X	0.674	3.247
35 – 49	1.110	X		0.748
50 – 64	0.645	X		0.435
65+	0.558	X		0.376
Female Age-Group	Age Weight	times	Sex Weight	Sex-Age Weight
18 – 34	4.949	X	1.938	9.591
35 – 49	1.535	X		2.975
50 – 64	0.814	X		1.578
65+	0.453	X		0.878

Appendix D. Comments attached to the returned questionnaire.

- SV1 – 321 (returned Blank) Sorry I didn't fill out, but my husband can't see, but never fished or hunted.
- SV1 – 312 (returned Blank) I am 90. It is difficult to read fine print. No one else here interested.
- SV1 – 364 (returned Blank) I am returning this survey with no answers. I know so little about wildlife and all that goes with the subject. I am not a candidate for this survey. I understand if I return this survey with no answers I won't get any more mail from your office. I just don't have any idea what to answer. I am not all involved with the Game, Fish and Parks, so I thank you for putting me on your mailing list, but please remove it.
- SV1 – 402 While this is an interesting survey, it overlooks one big issue. That is access to public lands. Particularity as it relates to women and seniors. The current direction of GF&P is toward fencing out public lands; to accommodate people that just want to view wildlife. They don't pay the bills. They don't buy the shells and hunting equipment that finances these projects. More and more women are hunting now and most hunters are over 40. Without access, there isn't any way most can physically drag out a deer.
- There is also a problem with GFP acquiring property totally surrounded by private land. This is the situation in the Black Hills. Lots of land, but it is controlled by adjacent landowners that charge outrageous fees to cross. These become private hunting preserves and you still have to figure out to get the animal out. The trend of the Federal Government is similar; they want to create wilderness areas. Politicians and criminals just love them.
- One solution is to designate land just for seniors and women and only seniors and women. These lands would simply require a special permit.
- Thank you for the opportunity to express something that has bothered us for some time.
- SV1 – 351 (returned Blank) I do not do surveys! Please do not send me anymore! Thank you.
- SV1 – 649 (returned Blank) I am a widow who does not fish or hunt. This would not be a good report for me to fill out.
- SV1 – 904 (returned Blank) I'm sorry to send this back blank. I have not hunted for at least a dozen years and have not fished in 2011.
- SV1 – 990 (returned Blank) I'm 91 years old: not interested. Mainly can't see well enough to read and answer questions.

- SV2 – 480 (returned Blank) I am 90 years old and cannot complete this form, sorry.
- SV2 – 537 I think we should have a discount rate in campgrounds for senior citizens.
- SV2 – 754 (returned Blank) Returning a blank survey to let you know that I do not want to participate in this survey.
- SV2 – 859 To Whom It May Concern, if the answers on the survey are confusing “be advised” I lost about 200 pure alfalfa bales in both 2009 and 2010. I counted more than once 60-90 deer on my hay stacks. The GFP crew tried to help me and for that I’m appreciative. They were out of Lyman or Brule County.
- SV2 – 919 (returned Blank) I am elderly, in a wheelchair and have never been a fisherman or hunter. I am not qualified to do this survey.
- SV2 954 (returned Blank) I’m old and don’t know anything about this.
- SV2 – 1049 I hate doing surveys, but I did it “sort of”. One thing I know, I don’t want to lose our animals and birds, but they shouldn’t be more important than people (just watched the raccoons taking over cities, etc!). What breaks my heart is seeing hundreds of hunters fly in to kill all our pheasants. I’d love to hear a pheasant calling on evening again. I think I saw 1 pheasant this fall & winter. Those many years ago as we walked to & from school we saw lots of pheasants all the time. Can that be fixed?
- SV2-1052 (returned Blank) You environmentalists are all the same. You ask the same questions. Have you ever thought about what your shoes are made from or the belt you wear, where the meat on your plate comes from or the breakfast cereal you eat?
- SV2 – ? I have lived in my current home for 47 years, in the Oak Hills area, about 10 miles west of Yankton, SD. During that time I have felt sad to see so many homes being built around me, too close together and having the persistent deer increase in number. Many accidents with deer in our neighborhood on the way to town. I do not appreciate some of my neighbors roaming our wooded areas (that are decreasing) shooting the deer with bow and arrow and maybe guns but I am not aware of this. Years ago I would see more squirrels in the area, very few now. Some have seen mountain lions as well and one was shot in Yankton a few years ago and stuffed on view on our local library for a while. I hope this survey proves “fruitful” for you but I’m afraid in the world we live in man and his ways are out-running the hope for protecting wildlife.
- ? I no longer live in South Dakota.
- ? I am an 85 year old woman, live alone & I don’t think my input would be very helpful.

SV2 – 946 To Whom It May Concern: Yes, I do believe that wildlife is important, but there are definite times that the Government puts the welfare of wildlife before the greater good of people. Just as one example, there is an area just a mile from our home that has been flooding more and more each year. The landowners are not allowed to drain it because of the ducks nesting there. Meanwhile, more and more farmland, in excess of 2000 acres, is rendered un-farmable now. The water table has gotten so high that the township roads are suffering, with no money available for maintenance or improvements.

Last spring, the ¼ mile it takes for us to get to the highway was flooded badly enough that, even with 4-wheel drive, we couldn't get through that way. We do have a longer, alternate route to get to town, but with the wet spring and summer, that minimum maintenance road was impassable in a 2-wheel drive car, and I was stranded at home more often than not. I run a small home business and my customers could not get to me, not could I get to them. Needless to say, my income saw a substantial drop.

Another neighbor wasn't so lucky, as he had no other route to take and was forced to walk through cold springtime water, then mosquito infested water just to get to and from his car and work. His walk was about ½ mile each way. Aside from the inconvenience of having to carry groceries and such through the water, he, as well as us, were pretty much out of luck if we were in need of the ambulance or fire dept. We're not the only ones in our area who are in this situation. Is it going to take a death or two because of these conditions before people in power realize that those ducks can find another home? They had a home before this flooding occurred, and I'm sure they can find another one.

So yes, I do believe that wildlife is important to a degree, but we should NOT have to consider abandoning a home that we love and have worked hard for, so a few ducks can have a home. And no, we can't sell our homes, because if it's that bad, who else would want to live here??

I do realize that hunting and fishing bring a lot of revenue to South Dakota, and I'm totally in favor of that, but at some point there needs to be some common sense concerning the welfare of local citizens. Please pass this letter along to anyone who can help us.