

**PENNSYLVANIA GAME COMMISSION  
BUREAU OF WILDLIFE MANAGEMENT  
PROJECT ANNUAL JOB REPORT**

**PROJECT CODE NO.:** 06210

**TITLE:** White-tailed Deer Research/Management

**JOB CODE NO.:** 21017

**TITLE:** Deer Hunter Surveys

**PERIOD COVERED:** 1 July 2014 through 30 June 2015

**COOPERATING AGENCIES:** None

**WORK LOCATION(S):** Statewide

**PREPARED BY:** Christopher Rosenberry, Bret Wallingford, and Jeannine Tardiff Fleegle

**DATE:** 16 June 2015

**ABSTRACT** Hunter surveys are conducted to monitor hunter activities, attitudes towards, and satisfaction with various aspects of the deer management program. During this reporting period, we completed a general deer hunter survey designed to assess hunter activities, attitudes towards, and satisfaction with the deer management program. Results of the general deer hunter survey are grouped by category in Appendix 1.

**OBJECTIVE**

To monitor hunter activities, attitudes towards, and satisfaction with various aspects of the deer program.

**METHODS**

For the general deer hunter survey, we contacted 6,000 random hunters from the Pennsylvania Automated License System (PALS). We sent an announcement postcard on 7 October 2014 asking hunters to complete the survey online. After a week, we sent a reminder postcard on 14 October 2014. We then sent a hard copy survey to non-respondents on 29 October 2014. We followed this mailing with a second mailing to remaining non-respondents on 14 November 2014. A total of 198 responses were non-deliverable (i.e., moved with no forwarding address, death, etc.) and 3,352 usable responses for a response rate of 58%. We present results as an estimate (e.g., 55%). These estimates have an associated 95% confidence interval of approximately  $\pm 2\%$ . For example, if 55% of the respondents agreed with a statement, statistically,

the interval from 53% ( $55 - 2$ ) to 57% ( $55 + 2$ ) would include the actual percent of hunters who agreed with the statement 95% of the time.

## **RESULTS**

See Appendix 1 for survey responses.

## **RECOMMENDATIONS**

Continue to conduct hunter surveys in accordance with the 2009-2018 deer management plan, and as needed.

## **LITERATURE CITED**

## Appendix 1. 2014 Deer Hunter Survey, Summary Report, March 2015

### **INTRODUCTION AND METHODS**

We completed this survey to quantify hunter behaviors and attitudes regarding deer hunting and management in Pennsylvania. This survey was modeled after the 1995 and 2011 deer hunter surveys conducted by the Pennsylvania Game Commission. We randomly selected hunters who purchased 2013-14 hunting licenses.

#### **RESPONSE RATES**

We sent surveys to 6,000 individual hunters. Our 4 mailings included 2 mailings that provided instructions to complete the survey online and 2 mailings that contained a hard copy of the survey. A total of 198 surveys were non-deliverable (i.e., moved with no forwarding address, death, etc.) and 3,352 usable responses for a response rate of 58%. We present results as an estimate (e.g., 55%). These estimates have an associated 95% confidence interval of approximately  $\pm 2\%$ . For example, if 55% of the respondents agreed with a statement, statistically, the interval from 53% ( $55 - 2$ ) to 57% ( $55 + 2$ ) would include the actual percent of hunters who agreed with the statement 95% of the time.

#### **REPRESENTATIVENESS OF THIS SURVEY**

Participants in this survey represented a random sample of Pennsylvania hunters. Distribution of respondents closely matched license sales with adults constituting 73% of survey respondents and 72% of age-specific license sales. Nonresidents represented 6% of survey respondents and 5% of license sales.

### **RESULTS**

General statewide results are presented following the format of the survey. Percentages may not add up to 100% due to rounding.

### **ACKNOWLEDGEMENTS**

Survey support was provided by the Bureaus of Administration, Automated Technology Services, and Information and Education.

**PART I. GENERAL DEER HUNTING QUESTIONS****1. How many years have you hunted deer in Pennsylvania?**

Average 30 years of deer hunting  
Average 48 years old

**2. During the last 5 years, how many years did you hunt deer in Pennsylvania?**

1 year 4%  
2 years 6%  
3 years 7%  
4 years 7%  
5 years 73%

**3. Did you hunt deer in Pennsylvania during the 2013-14 hunting season?**

93% Yes

**4. Did you harvest an antlered deer in Pennsylvania during the 2013-14 hunting season?**

18% Yes

**5. Did you take your antlered deer to a taxidermist in Pennsylvania during the 2013-14 hunting seasons?**

18% Yes, for hunters who harvested an antlered deer

**6. Who processed your antlered deer from the 2013-14 hunting seasons? (Circle only one)**

4% I gave the antlered deer away  
43% I took it to a processor  
6% I skinned the antlered deer, then took the meat to a processor  
47% I processed the entire deer myself or had a friend or family member process it for me.

**7. How many antlerless deer did you harvest in Pennsylvania during the 2013-14 seasons?**

0 deer 76%  
1 deer 19%  
2 deer 4%  
>2 deer 1%

**8. How many total deer did you pay someone to process during the 2013-14 seasons?**

0 deer 82%  
1 deer 14%  
2 deer 3%  
>2 deer <1%

**9. On what kind of land did you hunt deer in Pennsylvania during the 2013-14 seasons? (Circle only one)**

55% Privately owned land (ex. Owned by private citizens and companies)  
16% Publicly owned land (ex. Government-owned lands like State Game Lands and State Forests)  
29% Both privately and publicly owned land

**10. During the 2013-14 seasons, did you pay a fee to access land for deer hunting?**

4% Yes

**11. During the 2013-14 seasons, how many trail cameras did you use for deer scouting?**

0 cameras 73%  
 1 camera 14%  
 2 cameras 7%  
 >2 cameras 5%

**12. Did you hunt deer in another state during the 2013-14 hunting seasons?**

10% Yes

Top States

New York  
 Ohio  
 Maryland  
 West Virginia  
 New Jersey

**13. Did you hunt bears in Pennsylvania during the 2013 archery bear season?**

5% Yes

***PART 2. DEER HUNTING MOTIVATIONS AND INTEREST****For each question, please indicate your level of agreement or disagreement with the following statements.*

	Agree	Neither Agree nor Disagree	Disagree
<b>14. I hunt with the goal of harvesting an antlered deer only.</b>	36%	26%	38%
<b>15. I do not care if I harvest an antlered or antlerless deer, as long as I get a deer.</b>	46%	24%	30%

**16. How has your interest in deer hunting in Pennsylvania changed in the last 5 years? (Circle only one)**

33% I am less interested now than 5 years ago  
 48% My interest has not changed in the last 5 years  
 14% I am more interested now than 5 years ago  
 6% I did not hunt deer in Pennsylvania 5 years ago

**17. What is the most important factor affecting change in your interest in deer hunting? (Circle only one)**

18% Time to hunt  
 15% Place to hunt  
 6% Personal health  
 15% Age  
 3% Hunting expenses (ex. gas, equipment, licenses)  
 5% Hunting partner(s)  
 17% Number of antlered deer seen or harvested  
 8% Number of antlerless deer seen or harvested  
 5% Quality of antlered deer seen or harvested  
 10% Antler restrictions

***PART 3. WMU HUNTED DURING THE 2013-14 ARCHERY SEASON***

**In which Wildlife Management Unit (WMU) did you hunt deer the most during the 2013-14 FALL ARCHERY SEASON (i.e., October to mid-November)?**

40% of deer hunters hunted in archery season.

WMU	% hunters								
1A	5	2A	6	3A	2	4A	3	5A	2
1B	4	2B	6	3B	3	4B	5	5B	8
		2C	6	3C	4	4C	5	5C	9
		2D	7	3D	3	4D	5	5D	1
		2E	2			4E	4		
		2F	4						
		2G	5						
		2H	1						

**18. During fall archery season, approximately how many days did you hunt in the WMU where you hunted the most during fall archery? (Circle only one)**

6% 1-2 days  
 23% 2-5 days  
 29% 6-10 days  
 20% 11-15 days  
 22% More than 15 days

**19. Did you start or return to archery hunting because you could use a crossbow?**

27% Yes

**20. Did you harvest an antlered deer in the WMU where you hunted the most during the fall archery season?**

17% Yes

**21. How many antlerless deer did you harvest in the WMU where you hunted the most during the fall archery season?**

0 deer 81%  
 1 deer 14%  
 2 deer 3%  
 >2 deer 1%

**22. Based on your experience during the fall archery season, the deer population in the WMU where you hunted the most during the fall archery season is: (Circle only one)**

9% Increasing  
 45% Staying the same  
 46% Decreasing

**23. Based on your experience during the fall archery season, the deer population in the WMU where you hunted the most during the fall archery season is: (Circle only one)**

54% Too low  
 42% About right  
 3% Too high

24. **On what kind of land did you hunt deer during the fall archery season in the WMU where you hunted the most during the fall archery season?** (Circle only one)
- 63% Privately owned land (ex. Owned by private citizens and companies)  
 13% Publicly owned land (ex. Government-owned lands like State Game Lands and State Forests)  
 23% Both privately and publicly owned land
25. **In the WMU where you hunted the most during the fall archery season, the number of antlered deer you saw last year when hunting during the fall archery season was:** (Circle only one)
- 65% Too low for me to be satisfied  
 33% Enough for me to be satisfied  
 2% More than enough for me to be satisfied
26. **In the WMU where you hunted the most during the fall archery season, the number of antlerless deer you saw last year when hunting during the fall archery season was:** (Circle only one)
- 50% Too low for me to be satisfied  
 43% Enough for me to be satisfied  
 7% More than enough for me to be satisfied
27. **Which statement best describes your use of a crossbow during the fall archery season in the WMU where you hunted the most during the fall archery season?** (Circle only one)
- 37% I only used a crossbow  
 49% I only used a vertical bow  
 13% I used both a crossbow and vertical bow

*For the 2013-14 fall archery season in the WMU where you hunted the most during the fall archery season:*

28. **Did you hunt as part of a hunting camp?** 11% Yes
29. **Did you hunt with a portable treestand?** 64% Yes
30. **Did you hunt from a permanent treestand?** 45% Yes
31. **Did you hunt using natural deer urine-based lures?** 46% Yes
32. **Is your primary residence in the WMU hunted most?** 71% Yes
33. **How many miles do you travel one-way to hunt in the WMU hunted most?** Average 28 Miles Driven

**PART 4. WMU HUNTED DURING THE 2013-14 REGULAR FIREARMS SEASON**

**In which Wildlife Management Unit (WMU) did you hunt deer the most during the 2013-14 REGULAR FIREARMS hunting season (i.e., the firearms season after Thanksgiving)?**

87% of hunters hunted firearms season.

WMU	% hunters								
1A	5	2D	7	3A	3	4A	4	5A	2
1B	4	2E	3	3B	5	4B	5	5B	5
2A	5	2F	6	3C	5	4C	4	5C	4
2B	3	2G	6	3D	4	4D	7	5D	<1
2C	7	2H	1			4E	4		

34. **Did you harvest an antlered deer in the WMU where you hunted the most during the firearms season?**
- 15% Yes
35. **How many antlerless deer did you harvest in the WMU where you hunted the most during the firearms season?**
- 0 deer 77%  
1 deer 18%  
2 deer 3%  
>2 deer 2%
36. **The deer population in the WMU where you hunted the most during the firearms season is: (Circle only one)**
- 7% Increasing  
43% Staying the same  
50% Decreasing
37. **The deer population in the WMU where you hunted the most during the firearms season is: (Circle only one)**
- 60% Too low  
37% About right  
2% Too high
38. **In the WMU where you hunted the most during the firearms season, antlerless allocations should: (Circle only one)**
- 13% Increase  
46% Stay the same  
33% Decrease  
8% Be eliminated
39. **In the WMU where you hunted the most during the firearms season, how many days did you spend in the woods scouting for deer before the season? Median 3 Days**
40. **On what land did you hunt deer in the WMU where you hunted the most during the firearms season? (Circle one)**
- 59% Privately owned land (ex. Owned by private citizens and companies)  
19% Publicly owned land (ex. Government-owned lands like State Game Lands and State Forests)  
22% Both privately and publicly owned land
41. **In the WMU where you hunted the most during the firearms season, the number of antlered deer you saw last year during the firearms season was: (Circle only one)**
- 75% Too low for me to be satisfied  
24% Enough for me to be satisfied  
1% More than enough for me to be satisfied

42. **In the WMU where you hunted the most during the firearms season, the number of antlerless deer you saw last year during the firearms season was: (Circle only one)**

56% Too low for me to be satisfied  
 37% Enough for me to be satisfied  
 6% More than enough for me to be satisfied

*For questions 43 to 45, about how many days did you hunt during the 2013-14 deer seasons in the WMU where you hunted the most during the firearms season? (If none, write in 0)*

43. **October Muzzleloader** Average 1 Day  
 44. **Archery and Flintlock after Christmas** Average 2 Days  
 45. **Firearms after Christmas (only in WMUs 2B, 5C, and 5D)** Average 1 Day  
 46. **In the WMU marked above, which days of the firearms season did you hunt? (Circle all that apply)**

<u>1<sup>st</sup> Week Day</u>	<u>% Hunters Hunting</u>	<u>2<sup>nd</sup> Week Day</u>	<u>% Hunters Hunting</u>
Monday	74	Monday	22
Tuesday	53	Tuesday	18
Wednesday	34	Wednesday	17
Thursday	24	Thursday	16
Friday	30	Friday	28
Saturday	62	Saturday	60

47. **Please indicate your level of agreement or disagreement with the following statement: In the WMU where I hunted the most during the firearms season, I support the antler restriction.**

62% Agree  
 16% Neither Agree nor Disagree  
 22% Disagree

48. **Please indicate your level of satisfaction or dissatisfaction with you deer hunting experience in 2013-14 in the WMU where you hunted the most during the firearms season**

37% Satisfied  
 27% Neither Satisfied nor Dissatisfied  
 36% Dissatisfied

*For the 2013-14 regular firearms season in the WMU where you hunted the most during the firearms season:*

49. **Did you hunt as part of a hunting camp?** 24% Yes  
 50. **Did you hunt from a portable treestand?** 33% Yes  
 51. **Did you hunt from a permanent treestand?** 34% Yes  
 52. **Did you hunt using natural deer urine-based lures?** 16% Yes  
 53. **Did you hunt as part of a drive?** 27% Yes  
 54. **Is your primary residence in the WMU where you hunted the most during the firearms season?**  
 58% Yes

55. **How many miles do you travel one-way to hunt in the WMU where you hunted the most during the firearms season?**

Average 50 Miles Driven to Hunt

56. **If the deer population remained the same in the WMU where you hunted the most during the firearms season, I would prefer the regular firearms season to be: (Circle only one)**

47% 12-day antlered and antlerless concurrent  
53% 5-day antlered followed by a 7-day antlered and antlerless concurrent

57. **In the WMU where you hunted the most during the firearms season, I would prefer the regular firearms season to start on: (Circle only one)**

38% The Saturday after Thanksgiving  
62% The Monday after Thanksgiving

58. **Given the following examples of antlerless allocations and antlerless firearms season lengths needed to maintain a stable deer population, I would prefer: (Circle only one)**

58% Same antlerless licenses and a 12-day concurrent antlered and antlerless season  
26% 15 percent more antlerless licenses and a 5-day antlered only followed by a 7-day concurrent antlerless and antlered season  
17% 40 percent more antlerless licenses and a 12-day antlered season followed by a separate 3-day antlerless season

**PART 5. DEER HARVEST REPORTING AND DEER HUNTING REGULATIONS**

*For each question, please indicate your level of agreement or disagreement with the following statements.*

		Agree	Neither Agree nor Disagree	Disagree
59.	Current methods to report deer harvests (e.g., report card, Internet, toll-free phone number) are easy and convenient	83%	15%	3%
60.	Deer harvest estimates based on field checked deer and hunter reporting rates are acceptable to me.	54%	30%	17%
61.	Deer harvest estimates based on a mail survey of hunters are acceptable to me.	47%	31%	22%
62.	All deer should be checked through mandatory check stations.	18%	20%	61%
63.	Accurate reporting of each deer harvested is the hunter's ethical responsibility.	89%	9%	3%

**PART 6. CHRONIC WASTING DISEASE (CWD)**

64. Have you heard about the detection of Chronic Wasting Disease (CWD) in Pennsylvania?

82% Yes

65. Based on what you know about CWD, how concerned are you about this disease? (Circle only one)

31% Very concerned  
55% Somewhat concerned  
14% Not concerned

*For each question, please indicate your level of agreement or disagreement with the following statements.*

	<b>Agree</b>	<b>Neither Agree nor Disagree</b>	<b>Disagree</b>
66. Because of CWD, I am concerned about eating venison.	36%	31%	33%
67. Because of CWD, I am concerned about the health of wild deer.	82%	13%	5%
68. Because of CWD, I am concerned about the future of deer hunting.	79%	15%	6%
69. If CWD was detected in the area I hunt most often, I would hunt in a different area.	44%	32%	24%
70. If CWD was detected in the area I hunt most often, my interest in deer hunting would decrease.	40%	26%	34%
71. Reducing the deer population can help control spread of CWD.	22%	44%	33%
72. The Game Commission should continue to prohibit deer feeding in CWD areas.	57%	34%	9%
73. The Game Commission should continue to prohibit use of natural deer urine-based lures in CWD areas.	38%	47%	15%
74. The Game Commission should continue to restrict transport of deer carcasses from CWD areas.	64%	29%	7%
75. The Game Commission should continue to use Disease Management Area permits to reduce deer populations.	51%	38%	11%

76. My interest in deer hunting would be reduced if:

25%	Any deer in the area I hunt had CWD
7%	1 out of 100 deer in the area I hunt had CWD
18%	10 out of 100 deer in the area I hunt had CWD
8%	25 out of 100 deer in the area I hunt had CWD
6%	40 out of 100 deer in the area I hunt had CWD
36%	CWD will not reduce my interest in deer hunting

#### **PART 7. DEER MANAGEMENT**

*For each question, please indicate your level of agreement or disagreement with the following statements.*

	<b>Agree</b>	<b>Neither Agree nor Disagree</b>	<b>Disagree</b>
77. Deer populations should be managed for healthy and sustainable forest habitat.	79%	14%	7%
78. Deer populations should be managed for healthy and sustainable deer populations.	89%	8%	3%
79. Deer populations should be managed for safe and acceptable levels of deer-human conflicts.	62%	22%	16%
80. Crossbows should remain legal statewide for archery deer hunting.	66%	15%	19%
81. Keeping deer in balance with natural food supplies is necessary.	83%	13%	4%

82.	There are not enough deer unless some are starving to death each year.	20%	30%	50%
83.	Predators are causing deer populations to decline.	53%	28%	18%
84.	Bear populations should be reduced to increase deer populations.	20%	38%	42%
85.	Coyote populations should be reduced to increase deer populations.	76%	16%	8%
86.	If needed to improve deer population health, I would accept lower deer populations and seeing fewer deer when hunting.	33%	36%	31%
87.	If needed to improve habitat conditions, I would accept lower deer populations and seeing fewer deer when hunting.	30%	35%	35%
88.	If needed to reduce deer-human conflicts, I would accept lower deer populations and seeing fewer deer when hunting.	21%	31%	49%
89.	The Game Commission should prohibit deer feeding statewide.	24%	33%	43%
90.	Archery bear season should occur during the last week of the fall deer archery season.	37%	51%	12%
91.	If archery bear season occurred during the last week of the fall deer archery season, I would purchase a bear license to hunt that week.	28%	43%	29%

*For each question, please indicate your level of satisfaction with the Game Commission's performance in the following areas.*

	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied
92. Archery seasons and regulations	63%	26%	11%
93. October muzzleloader season and regulations	46%	39%	15%
94. Regular firearms season and regulations	69%	15%	15%
95. Late-season flintlock season and regulations	56%	38%	6%
96. Antler restrictions	64%	15%	21%
97. Research and science of deer management	53%	35%	12%
98. Chronic Wasting Disease response and regulations	51%	41%	9%
99. Overall deer management program	50%	28%	22%

**PART 8. SOME QUESTIONS ABOUT YOU**

101. At what age did you begin deer hunting? Average 15 years old.
102. What is the highest level of education you have attained? (Circle only one)
- 42% High school or less
  - 33% Some college/vocational training
  - 26% College graduate

**103. The area surrounding your current home is: (Circle only one)**

- 55% Country/rural
- 21% Rural town/village
- 18% Suburban
- 6% City

**104. When you began hunting, the area surrounding your home would have been best described as: (Circle only one)**

- 62% Country/rural
- 18% Rural town/village
- 13% Suburban
- 6% City

**105. Who was the primary person that helped you get started hunting? (Circle only one)**

- 70% Parent or Grandparent
- 13% Relative
- 4% Other adult
- 10% Friend
- 3% No one

**106. How would you describe your current health status (Circle only one)**

- 44% Excellent (no health problems or injuries)
- 40% Good (minor health problems or injuries)
- 13% Fair (some health problems or injuries that affect my daily life and mobility)
- 3% Poor (significant health problems or injuries that affect my daily life and mobility)

*In cooperation with the Pennsylvania Department of Health, please respond to the following questions regarding ticks and preventative measures.*

*For the following questions, please indicate how often you take the following precautions when hunting, trapping, or scouting.*

	Always	Usually	Sometimes	Never
<b>1. Apply insect repellent to clothes.</b>	8%	16%	34%	42%
<b>2. Apply insect repellent to skin.</b>	4%	12%	34%	50%
<b>3. Wear light colored clothing</b>	10%	18%	41%	31%
<b>4. Wear long sleeves.</b>	41%	40%	17%	2%
<b>5. Wear long pants.</b>	68%	25%	6%	1%
<b>6. Tuck pants into boots or socks.</b>	20%	23%	28%	29%

**7. How many times in the past 12 months have you found an unattached tick on yourself or your clothing when hunting, trapping, or scouting.**

- 29% None
- 29% 1-2 times
- 26% 3-10 times

- 13% More than 10 times  
3% I can't remember

**8. How many times in the past 12 months have you found an attached tick on yourself when hunting, trapping, or scouting.**

- 58% None  
31% 1-2 times  
8% 3-10 times  
2% More than 10 times  
2% I can't remember

**For the following questions, please indicate your level of agreement or disagreement with each statement.**

	Agree	Neither Agree nor Disagree	Disagree
<b>9. Ticks can carry diseases that affect humans.</b>	99%	1%	0%
<b>10. Exposure to ticks affects my decision to hunt certain hunting seasons.</b>	22%	26%	52%
<b>11. Tick-borne illnesses are a serious problem for hunters and trappers in Pennsylvania.</b>	67%	25%	7%
<b>12. I always wear gloves when field dressing game.</b>	53%	18%	28%
<b>13. I always wear gloves when butchering game.</b>	37%	30%	34%

**14. Have you ever sought medical treatment for a tick bite? (Circle one)**

- 21% Yes

*Thank you for taking the time to complete this survey.*