

**Hunting Estimates Report
2016-17 Hunter Harvest
Region: Statewide**

Species	Total Hunters					Total Days				Total Harvest					Mean Days Per Hunter	Mean Harvest Per Hunter	Mean Harvest Per Day
	Total Hunters	Confidence Limits (±)	PSE	Credibility Rating	% of incidental hunters	Total Days	Confidence Limits (±)	PSE	Credibility Rating	Total Harvest	Confidence Limits (±)	PSE	Credibility Rating	% of harvest taken incidentally			
All Deer	253,164	3,573	0.007	G	0.05%	3,693,501	116,767	0.016	G	222,260	10,619	0.024	G	0.06%	14.59	0.88	0.06
Antlered/Button Buck	253,164	3,573	0.007	G	0.05%	3,693,501	116,767	0.016	G	101,083	5,046	0.025	G	0.13%	14.59	0.40	0.03
All Squirrels	58,532	3,451	0.030	G	0.44%	346,737	29,281	0.043	G	423,864	49,677	0.060	G	0.25%	5.92	7.24	1.22
Antlered Buck	253,164	3,573	0.007	G	0.05%	3,693,501	116,767	0.016	G	92,986	4,793	0.026	G	0.14%	14.59	0.37	0.03
Bear	23,647	2,337	0.050	G	0.55%	180,095	22,254	0.063	G	4,110	905	0.112	G	3.16%	7.62	0.17	0.02
Bobcat	4,093	1,004	0.125	G	38.10%	11,391	4,775	0.214	P	2,838	618	0.111	G	61.79%	2.78	0.69	0.25
Bobwhite Quail	12,538	1,734	0.071	G	0.00%	82,260	15,773	0.098	G	56,488	15,648	0.141	G	0.00%	6.56	4.51	0.69
Button Buck	253,164	3,573	0.007	G	0.05%	3,693,501	116,767	0.016	G	10,543	1,734	0.084	G	0.00%	14.59	0.04	0.00
Canada Geese	12,653	1,687	0.068	G	3.86%	66,028	12,926	0.100	G	37,386	7,817	0.107	G	1.47%	5.22	2.95	0.57
Common Snipe	455	337	0.378	P	14.29%	974	686	0.359	P	2,079	2,594	0.637	P	3.13%	2.14	4.57	2.13
Coyote	37,874	2,885	0.039	G	9.43%	242,139	31,711	0.067	G	45,568	12,366	0.138	G	12.40%	6.39	1.20	0.19
Doe	253,164	3,573	0.007	G	0.05%	3,693,501	116,767	0.016	G	103,387	7,369	0.036	G	0.00%	14.59	0.41	0.03
Dove	70,421	3,698	0.027	G	0.00%	210,805	14,676	0.036	G	861,179	59,681	0.035	G	0.00%	2.99	12.23	4.09
Ducks	50,542	3,256	0.033	G	0.00%	346,555	26,850	0.040	G	462,010	48,289	0.053	G	0.00%	6.86	9.14	1.33
Feral Swine	8,380	1,427	0.087	G	3.10%	53,212	11,133	0.107	G	8,048	2,738	0.174	F	15.34%	6.35	0.96	0.15
Fox	3,378	913	0.138	G	5.77%	18,614	6,883	0.189	F	4,324	2,533	0.299	P	9.01%	5.51	1.28	0.23
Fox Squirrel	4,093	1,004	0.125	G	0.00%	15,893	4,379	0.141	G	4,229	1,474	0.178	F	0.00%	3.88	1.03	0.27
Gray Squirrel	57,168	3,420	0.031	G	0.45%	342,681	29,114	0.043	G	419,938	49,499	0.060	G	0.25%	5.99	7.35	1.23
Grouse	4,093	1,004	0.125	G	1.59%	29,320	8,462	0.147	G	4,753	2,443	0.262	P	2.73%	7.16	1.16	0.16
Rabbit	37,549	2,874	0.039	G	0.69%	233,038	25,741	0.056	G	202,658	27,080	0.068	G	0.29%	6.21	5.40	0.87
Raccoon	10,784	1,612	0.076	G	3.61%	132,087	33,222	0.128	G	51,092	13,767	0.137	G	2.03%	12.25	4.74	0.39
Turkey	76,462	3,806	0.025	G	0.08%	424,754	21,522	0.026	G	30,268	2,850	0.048	G	0.00%	5.56	0.40	0.07
Woodcock	1,754	660	0.192	F	3.70%	7,691	4,327	0.287	P	6,237	6,416	0.525	P	2.08%	4.38	3.56	0.81

Total # of license holders	656,866
Deceased license holder rate	0.013463805
Adj Total # of license holders	648,022
Total # of surveys sent	28,001
Undeliverables	1,820
Deceased	377
Sample size	25,804
Sample rate	3.98%
Total Survey Returns	10,941
Refused	64
Total Survey Responses	10,877
Response rate	42.15%
Total Not Responding	14,927

Active Hunter Estimate	
# of Active Hunters from Respondents	4,884
Proportion of Responding Hunters	0.449021
Estimated Proportion of Non-responding Hunters	0.5192
SE	0.004769
PSE	0.010621
Total Active Licensed Hunters	317,283
Margin of Error @ 95% CL	6,605
Active Hunter Rate within All License Holders	48.96%

Hunter Harvest Survey Regional Credibility Measures

Although the Hunter Harvest Survey (HHS) database provides a huge amount of information about regional hunting activity for many species, there are a variety of possible problems with estimates derived from HHS data. Small sample sizes, low relative harvest or hunting effort rates, imprecise estimates, and missing data all can compromise HHS results. Often, users do not take these problems into account when viewing HHS results, and use the results inappropriately.

To provide some guidance into the interpretation of HHS data, we have implemented a series of checks for some minimum criteria that we view as cause for caution. We categorize HHS results into 3 credibility categories:

	Total Hunters	Total Days	Total Harvest
Poor	> 30% of counties have < 3 records within the selected region* < 20 individual hunter responses Total Hunter PSE > 20%	> 30% of counties have < 3 records within the selected region* < 20 individual hunter responses Total Days PSE > 20% <0.1 days per hunter	> 30% of counties have < 3 records within the selected region* < 20 individual hunter responses Total Harvest PSE > 20% <0.002 animals per hunter
Fair	>=20 and < 30 individual hunter responses 15% < Total Hunter PSE <= 20%	>=20 and < 30 individual hunter responses 15% < Total Days PSE <= 20% <1.0 days per hunter	>=20 and < 30 individual hunter responses 15% < Total Harvest PSE <= 20% <0.02 animals per hunter
Good	>= 30 individual hunter responses Total Hunter PSE < 15%	>= 30 individual hunter responses Total Days PSE < 15% >= 1.0 days per hunter	>= 30 individual hunter responses Total Harvest PSE < 15% >= 0.02 animals per hunter

*Does not apply to statewide summary

Frequency of Hunters with Various Numbers of Kills
2016-17 Hunter Harvest
Region: Statewide

All Deer

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	136,005	53.72%	136,005	53.72%
1	62,072	24.52%	198,077	78.24%
2	30,707	12.13%	228,784	90.37%
3	11,400	4.50%	240,184	94.87%
4	7,314	2.89%	247,498	97.76%
5	2,965	1.17%	250,463	98.93%
>= 6	2,702	1.07%	253,165	100.00%

All Squirrels

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	10,570	18.06%	10,570	18.06%
1	4,757	8.13%	15,327	26.19%
2	7,135	12.19%	22,462	38.37%
3	4,162	7.11%	26,624	45.49%
4	4,889	8.35%	31,513	53.84%
5	4,096	7.00%	35,609	60.84%
>= 6	22,924	39.16%	58,533	100.00%

Antlered Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	171,851	67.88%	171,851	67.88%
1	58,909	23.27%	230,760	91.15%
2	18,516	7.31%	249,276	98.46%
3	3,163	1.25%	252,439	99.71%
4	725	0.29%	253,164	100.00%
5	0	0.00%	253,164	100.00%
>= 6	0	0.00%	253,164	100.00%

Antlered/Button Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	166,382	65.72%	166,382	65.72%
1	61,215	24.18%	227,597	89.90%
2	20,295	8.02%	247,892	97.92%
3	4,151	1.64%	252,043	99.56%
4	988	0.39%	253,031	99.95%
5	132	0.05%	253,163	100.00%
>= 6	0	0.00%	253,163	100.00%

Bear

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	18,556	81.85%	18,556	81.85%
1	4,116	18.15%	22,672	100.00%
2	0	0.00%	22,672	100.00%
3	0	0.00%	22,672	100.00%
4	0	0.00%	22,672	100.00%
5	0	0.00%	22,672	100.00%
>= 6	0	0.00%	22,672	100.00%

Bobcat

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	1,387	35.00%	1,387	35.00%
1	2,378	60.00%	3,765	95.00%
2	132	3.33%	3,897	98.33%
3	66	1.67%	3,963	100.00%
4	0	0.00%	3,963	100.00%
5	0	0.00%	3,963	100.00%
>= 6	0	0.00%	3,963	100.00%

Button Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	243,478	96.17%	243,478	96.17%
1	9,027	3.57%	252,505	99.74%
2	461	0.18%	252,966	99.92%
3	198	0.08%	253,164	100.00%
4	0	0.00%	253,164	100.00%
5	0	0.00%	253,164	100.00%
>= 6	0	0.00%	253,164	100.00%

Canada Geese

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	4,433	35.18%	4,433	35.18%
1	2,343	18.59%	6,776	53.77%
2	1,520	12.06%	8,296	65.83%
3	697	5.53%	8,993	71.36%
4	1,077	8.54%	10,070	79.90%
5	697	5.53%	10,767	85.43%
>= 6	1,837	14.57%	12,604	100.00%

Common Snipe

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	195	42.86%	195	42.86%
1	130	28.57%	325	71.43%
2	0	0.00%	325	71.43%
3	0	0.00%	325	71.43%
4	0	0.00%	325	71.43%
5	0	0.00%	325	71.43%
>= 6	130	28.57%	455	100.00%

Coyote

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	20,564	54.48%	20,564	54.48%
1	9,287	24.60%	29,851	79.09%
2	3,715	9.84%	33,566	88.93%
3	1,526	4.04%	35,092	92.97%
4	1,194	3.16%	36,286	96.13%
5	398	1.05%	36,684	97.19%
>= 6	1,061	2.81%	37,745	100.00%

Crow

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
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Doe

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	190,565	75.27%	190,565	75.27%
1	38,548	15.23%	229,113	90.50%
2	15,024	5.93%	244,137	96.43%
3	5,403	2.13%	249,540	98.57%
4	2,372	0.94%	251,912	99.51%
5	461	0.18%	252,373	99.69%
>= 6	791	0.31%	253,164	100.00%

Dove

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	9,245	13.13%	9,245	13.13%
1	2,492	3.54%	11,737	16.67%
2	3,147	4.47%	14,884	21.14%
3	2,623	3.72%	17,507	24.86%
4	4,328	6.15%	21,835	31.01%
5	3,737	5.31%	25,572	36.31%
>= 6	44,849	63.69%	70,421	100.00%

Ducks

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	8,555	16.93%	8,555	16.93%
1	3,685	7.29%	12,240	24.22%
2	3,817	7.55%	16,057	31.77%
3	3,356	6.64%	19,413	38.41%
4	2,698	5.34%	22,111	43.75%
5	2,567	5.08%	24,678	48.83%
>= 6	25,863	51.17%	50,541	100.00%

Feral Swine

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	5,061	63.33%	5,061	63.33%
1	1,332	16.67%	6,393	80.00%
2	599	7.50%	6,992	87.50%
3	266	3.33%	7,258	90.83%
4	67	0.83%	7,325	91.67%
5	200	2.50%	7,525	94.17%
>= 6	466	5.83%	7,991	100.00%

Fox

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	1,487	44.90%	1,487	44.90%
1	1,217	36.73%	2,704	81.63%
2	338	10.20%	3,042	91.84%
3	0	0.00%	3,042	91.84%
4	135	4.08%	3,177	95.92%
5	0	0.00%	3,177	95.92%
>= 6	135	4.08%	3,312	100.00%

Fox Squirrel

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	1,915	49.12%	1,915	49.12%
1	957	24.56%	2,872	73.68%
2	547	14.04%	3,419	87.72%
3	0	0.00%	3,419	87.72%
4	274	7.02%	3,693	94.74%
5	137	3.51%	3,830	98.25%
>= 6	68	1.75%	3,898	100.00%

Gray Squirrel

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	10,178	17.80%	10,178	17.80%
1	4,362	7.63%	14,540	25.43%
2	6,939	12.14%	21,479	37.57%
3	4,164	7.28%	25,643	44.86%
4	4,825	8.44%	30,468	53.29%
5	3,899	6.82%	34,367	60.12%
>= 6	22,801	39.88%	57,168	100.00%

Grouse

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	2,443	60.66%	2,443	60.66%
1	528	13.11%	2,971	73.77%
2	594	14.75%	3,565	88.52%
3	66	1.64%	3,631	90.16%
4	132	3.28%	3,763	93.44%
5	0	0.00%	3,763	93.44%
>= 6	264	6.56%	4,027	100.00%

Bobwhite Quail

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	5,801	46.99%	5,801	46.99%
1	742	6.01%	6,543	53.01%
2	1,012	8.20%	7,555	61.20%
3	809	6.56%	8,364	67.76%
4	135	1.09%	8,499	68.85%
5	405	3.28%	8,904	72.13%
>= 6	3,440	27.87%	12,344	100.00%

Rabbit

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	9,387	25.00%	9,387	25.00%
1	5,925	15.78%	15,312	40.78%
2	5,193	13.83%	20,505	54.61%
3	2,463	6.56%	22,968	61.17%
4	2,330	6.21%	25,298	67.38%
5	1,997	5.32%	27,295	72.70%
>= 6	10,253	27.30%	37,548	100.00%

Raccoon

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	1,907	17.90%	1,907	17.90%
1	2,762	25.93%	4,669	43.83%
2	1,578	14.81%	6,247	58.64%
3	921	8.64%	7,168	67.28%
4	395	3.70%	7,563	70.99%
5	658	6.17%	8,221	77.16%
>= 6	2,433	22.84%	10,654	100.00%

Turkey

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	52,370	69.14%	52,370	69.14%
1	16,906	22.32%	69,276	91.46%
2	6,208	8.20%	75,484	99.65%
3	132	0.17%	75,616	99.83%
4	132	0.17%	75,748	100.00%
5	0	0.00%	75,748	100.00%
>= 6	0	0.00%	75,748	100.00%

Woodcock

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	974	55.56%	974	55.56%
1	130	7.41%	1,104	62.96%
2	195	11.11%	1,299	74.07%
3	195	11.11%	1,494	85.19%
4	65	3.70%	1,559	88.89%
5	0	0.00%	1,559	88.89%
>= 6	195	11.11%	1,754	100.00%