Hunting Estimates Report 2011-2012 Hunter Harvest Survey Region: Statewide

Species	n	Total Hunters	Confidence Limits (<u>+</u>)	PSE	Credibility Rating	% of incidental hunters	Total Days	Confidence Limits (<u>+</u>)	PSE	Credibility Rating	Total Harvest	Confidence Limits (<u>+</u>)	PSE	Credibility Rating	% of harvest taken incidentally	Mean Days Per Hunter	Mean Harvest Per Hunter	Mean Harvest Per Day
All Squirrels	1598	74.720	3,173	0.022	G	0.95%	505,308	33,253	0.034	G	641.785	50,428	0.040	G	0.26%	6.76	8.59	1.27
All Deer	5150	240.807	2,897	0.006	G	0.00%	3,835,119	102.478	0.014	G	217.146	8.990	0.021	G	0.00%	15.93	0.90	0.06
Antlered Buck	5150	240,807	2,897	0.006	G	0.00%	3,835,119	102,478	0.014	G	101,205	4,571	0.023	G	0.00%	15.93	0.42	0.03
Bear	333	15,571	1,628	0.053	G	0.65%	109,463	14,667	0.068	G	2,848	656	0.117	G	3.53%	7.03	0.18	0.03
Bobcat	92	4,302	873	0.104	G	35.51%	18,436	6,618	0.183	F	3,451	826	0.122	G	48.03%	4.29	0.80	0.19
Bobwhite Quail	348	16,272	1,662	0.052	G	1.56%	88,910	11,772	0.068	G	66,620	14,021	0.107	G	1.58%	5.46	4.09	0.75
Button Buck	5150	240,807	2,897	0.006	G	0.00%	3,835,119	102,478	0.014	G	16,032	1,834	0.058	G	0.00%	15.93	0.07	0.00
Canada Geese	282	13,186	1,505	0.058	G	1.93%	75,442	11,919	0.081	G	51,657	13,142	0.130	G	1.26%	5.72	3.92	0.68
Coyote	690	25,771	1,816	0.036	G	20.55%	155,041	20,323	0.067	G	31,662	7,557	0.122	G	25.70%	6.02	1.23	0.20
Crow	287	8,227	930	0.058	G	8.04%	56,864	23,719	0.213	Р	98,264	61,567	0.320	Р	1.48%	6.91	11.94	1.73
Doe	5150	240,807	2,897	0.006	G	0.00%	3,835,119	102,478	0.014	G	102,750	5,965	0.030	G	0.00%	15.93	0.43	0.03
Dove	1593	67,168	2,858	0.022	G	0.08%	214,870	11,731	0.028	G	865,409	55,609	0.033	G	0.03%	3.20	12.88	4.03
Ducks	900	37,696	2,283	0.031	G	0.00%	326,672	23,745	0.037	G	422,959	43,364	0.052	G	0.00%	8.67	11.22	1.29
Feral Swine	193	9,024	1,254	0.071	G	5.08%	67,471	15,252	0.115	G	9,306	2,784	0.153	F	5.40%	7.48	1.03	0.14
Fox	104	4,863	927	0.097	G	18.85%	33,285	10,960	0.168	F	5,335	1,375	0.132	G	26.36%	6.84	1.10	0.16
Fox Squirrel	107	5,003	940	0.096	G	5.09%	28,805	8,249	0.146	G	11,234	3,915	0.178	F	2.68%	5.76	2.25	0.39
Gray Squirrel	1569	73,364	3,153	0.022	G	0.83%	499,151	32,834	0.034	G	630,660	49,537	0.040	G	0.25%	6.80	8.60	1.26
Grouse	123	3,932	688	0.089	G	2.59%	22,786	5,949	0.133	G	4,380	1,604	0.187	F	4.59%	5.80	1.11	0.19
Rabbit	1019	47,647	2,682	0.029	G	0.75%	307,540	26,534	0.044	G	272,956	34,577	0.065	G	0.31%	6.45	5.73	0.89
Raccoon	286	13,373	1,515	0.058	G	2.28%	210,174	41,706	0.101	G	92,104	20,036	0.111	G	1.04%	15.72	6.89	0.44
Turkey	1390	57,273	2,663	0.024	G	0.18%	286,501	13,400	0.024	G	21,488	1,917	0.046	G	0.47%	5.00	0.38	0.08
Woodcock	59	1,875	476	0.130	G	16.29%	8,258	3,168	0.196	F	5,109	2,406	0.240	P	10.81%	4.40	2.72	0.62

Total # of license holders 580,345
Response rate 50.31%

Active Hunter Estimate
Total Active Licensed Hunters 298,788
Margin of Error @ 95% CL 4,856
Active Hunter Rate within All License Holders 52.19%

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*	> 30% of counties have < 3 records within the selected region*	> 30% of counties have < 3 records within the selected region*
	< 20 individual hunter responses	< 20 individual hunter responses	< 20 individual hunter responses
	Total Hunter PSE > 20%	Total Days PSE > 20% < 0.1 days per hunter	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 2011-2012 Hunter Harvest Survey Region: Statewide

All Deer

	Number of	Percent of	Cumulative	Cumulative	
Number Killed	Hunters	Hunters	Frequency	Percent	
0	122,532	50.88%	122,532	50.88%	
1	54,480	22.62%	177,012	73.51%	
2	29,935	12.43%	206,947	85.94%	
3	14,708	6.11%	221,655	92.05%	
4	8,087	3.36%	229,742	95.40%	
5	5,486	2.28%	235,228	97.68%	
>= 6	5,580	2.32%	240,808	100.00%	

All Squirrels

•	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	10,546	14.11%	10,546	14.11%
1	5,556	7.44%	16,102	21.55%
2	7,392	9.89%	23,494	31.44%
3	5,979	8.00%	29,473	39.45%
4	6,497	8.70%	35,970	48.14%
5	5,791	7.75%	41,761	55.89%
>= 6	32,958	44.11%	74,719	100.00%

Antlered Buck

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	158,993	66.03%	158,993	66.03%
1	55,473	23.04%	214,466	89.06%
2	19,579	8.13%	234,045	97.19%
3	4,351	1.81%	238,396	99.00%
4	2,175	0.90%	240,571	99.90%
5	95	0.04%	240,666	99.94%
>= 6	142	0.06%	240,808	100.00%

Bear

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	12,770	82.01%	12,770	82.01%
1	2,753	17.68%	15,523	99.70%
2	47	0.30%	15,570	100.00%
3	0	0.00%	15,570	100.00%
4	0	0.00%	15,570	100.00%
5	0	0.00%	15,570	100.00%
>= 6	0	0.00%	15,570	100.00%

Bobcat

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	1,655	38.46%	1,655	38.46%
1	2,175	50.55%	3,830	89.01%
2	378	8.79%	4,208	97.80%
3	0	0.00%	4,208	97.80%
4	0	0.00%	4,208	97.80%
5	47	1.10%	4,255	98.90%
>= 6	47	1.10%	4,302	100.00%

Button Buck

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	226,430	94.03%	226,430	94.03%
1	13,005	5.40%	239,435	99.43%
2	1,135	0.47%	240,570	99.90%
3	189	0.08%	240,759	99.98%
4	47	0.02%	240,806	100.00%
5	0	0.00%	240,806	100.00%
>= 6	0	0.00%	240,806	100.00%

Canada Geese

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	2,926	29.39%	2,926	29.39%
1	1,713	17.20%	4,639	46.59%
2	1,534	15.41%	6,173	62.01%
3	856	8.60%	7,029	70.61%
4	500	5.02%	7,529	75.63%
5	535	5.38%	8,064	81.00%
>= 6	1,891	19.00%	9,955	100.00%

Coyote

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	16,512	51.18%	16,512	51.18%
1	9,232	28.61%	25,744	79.79%
2	3,331	10.32%	29,075	90.12%
3	1,094	3.39%	30,169	93.51%
4	666	2.06%	30,835	95.58%
5	381	1.18%	31,216	96.76%
>= 6	1,047	3.24%	32,263	100.00%

Crow

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	2,072	15.44%	2,072	15.44%
1	2,307	17.19%	4,379	32.63%
2	2,213	16.49%	6,592	49.12%
3	1,318	9.82%	7,910	58.95%
4	753	5.61%	8,663	64.56%
5	612	4.56%	9,275	69.12%
>= 6	4,144	30.88%	13,419	100.00%

Doe

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	170,390	70.76%	170,390	70.76%
1	40,434	16.79%	210,824	87.55%
2	17,072	7.09%	227,896	94.64%
3	6,905	2.87%	234,801	97.51%
4	3,831	1.59%	238,632	99.10%
5	993	0.41%	239,625	99.51%
>= 6	1,182	0.49%	240,807	100.00%

Dove

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	8,004	10.75%	8,004	10.75%
1	2,260	3.03%	10,264	13.78%
2	3,108	4.17%	13,372	17.95%
3	2,731	3.67%	16,103	21.62%
4	3,343	4.49%	19,446	26.11%
5	4,143	5.56%	23,589	31.67%
>= 6	50,898	68.33%	74,487	100.00%

Ducks

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	6,736	19.55%	6,736	19.55%
1	2,400	6.97%	9,136	26.52%
2	2,904	8.43%	12,040	34.94%
3	1,781	5.17%	13,821	40.11%
4	2,516	7.30%	16,337	47.42%
5	1,394	4.04%	17,731	51.46%
>= 6	16,724	48.54%	34,455	100.00%

Feral Swine

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	5,264	58.33%	5,264	58.33%
1	1,927	21.35%	7,191	79.69%
2	893	9.90%	8,084	89.58%
3	235	2.60%	8,319	92.19%
4	141	1.56%	8,460	93.75%
5	235	2.60%	8,695	96.35%
>= 6	329	3.65%	9,024	100.00%

Fox

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	1,936	39.81%	1,936	39.81%
1	1,983	40.78%	3,919	80.58%
2	425	8.74%	4,344	89.32%
3	94	1.94%	4,438	91.26%
4	94	1.94%	4,532	93.20%
5	142	2.91%	4,674	96.12%
>= 6	189	3.88%	4,863	100.00%

Fox Squirrel

•	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	1,794	35.85%	1,794	35.85%
1	1,605	32.08%	3,399	67.92%
2	519	10.38%	3,918	78.30%
3	236	4.72%	4,154	83.02%
4	283	5.66%	4,437	88.68%
5	0	0.00%	4,437	88.68%
>= 6	566	11.32%	5,003	100.00%

Gray Squirrel

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	10,171	13.86%	10,171	13.86%
1	5,227	7.12%	15,398	20.99%
2	7,393	10.08%	22,791	31.07%
3	5,886	8.02%	28,677	39.09%
4	6,310	8.60%	34,987	47.69%
5	5,839	7.96%	40,826	55.65%
>= 6	32,538	44.35%	73,364	100.00%

Grouse

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	3,553	61.79%	3,553	61.79%
1	935	16.26%	4,488	78.05%
2	374	6.50%	4,862	84.55%
3	281	4.88%	5,143	89.43%
4	234	4.07%	5,377	93.50%
5	94	1.63%	5,471	95.12%
>= 6	281	4.88%	5,752	100.00%

Bobwhite Quail

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	8,184	50.29%	8,184	50.29%
1	1,101	6.76%	9,285	57.06%
2	1,388	8.53%	10,673	65.59%
3	957	5.88%	11,630	71.47%
4	526	3.24%	12,156	74.71%
5	574	3.53%	12,730	78.24%
>= 6	3,542	21.76%	16,272	100.00%

Rabbit

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	11,605	24.36%	11,605	24.36%
1	5,991	12.57%	17,596	36.93%
2	6,652	13.96%	24,248	50.89%
3	4,340	9.11%	28,588	60.00%
4	3,397	7.13%	31,985	67.13%
5	2,264	4.75%	34,249	71.88%
>= 6	13,398	28.12%	47,647	100.00%

Raccoon

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	2,401	17.96%	2,401	17.96%
1	2,401	17.96%	4,802	35.92%
2	2,025	15.14%	6,827	51.06%
3	1,036	7.75%	7,863	58.80%
4	612	4.58%	8,475	63.38%
5	1,083	8.10%	9,558	71.48%
>= 6	3,814	28.52%	13,372	100.00%

Turkey

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	46,176	71.04%	46,176	71.04%
1	13,348	20.54%	59,524	91.58%
2	5,377	8.27%	64,901	99.85%
3	94	0.15%	64,995	100.00%
4	0	0.00%	64,995	100.00%
5	0	0.00%	64,995	100.00%
>= 6	0	0.00%	64,995	100.00%

Woodcock

	Number of	Percent of	Cumulative	Cumulative
Number Killed	Hunters	Hunters	Frequency	Percent
0	904	32.76%	904	32.76%
1	666	24.14%	1,570	56.90%
2	428	15.52%	1,998	72.41%
3	143	5.17%	2,141	77.59%
4	95	3.45%	2,236	81.03%
5	190	6.90%	2,426	87.93%
>= 6	333	12.07%	2,759	100.00%