

Hunting Estimates Report
2012-2013 Hunter Harvest Survey
 Date Generated: 09/10/2013
 Region: Statewide

Species	n	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	Mean Days Per Hunter	Mean Harvest Per Hunter	Mean Harvest Per Day
All Deer	4616	243,584	3,164	0.007	G	0.00%	3,478,064	98,740	0.014	G	219,385	9,558	0.022	G	0.00%	14.28	0.90	0.06
Antlered/Button Buck	4616	243,584	3,164	0.007	G	0.00%	3,478,064	98,740	0.014	G	113,117	5,042	0.023	G	0.00%	14.28	0.46	0.03
All Squirrels	1452	76,621	3,411	0.023	G	0.48%	494,367	31,081	0.032	G	656,220	49,018	0.038	G	0.18%	6.45	8.56	1.33
Antlered Buck	4616	243,584	3,164	0.007	G	0.00%	3,478,064	98,740	0.014	G	99,252	4,689	0.024	G	0.00%	14.28	0.41	0.03
Bear	324	17,097	1,809	0.054	G	0.31%	130,004	20,059	0.079	G	2,581	661	0.131	G	2.04%	7.60	0.15	0.02
Bobcat	109	5,752	1,070	0.095	G	24.77%	26,513	7,379	0.142	G	4,591	1,057	0.118	G	40.23%	4.61	0.80	0.17
Bobwhite Quail	317	16,728	1,790	0.055	G	0.63%	133,663	22,991	0.088	G	77,166	15,813	0.105	G	0.34%	7.99	4.61	0.58
Button Buck	4616	243,584	3,164	0.007	G	0.00%	3,478,064	98,740	0.014	G	16,815	2,025	0.061	G	0.00%	14.28	0.07	0.00
Canada Geese	249	13,140	1,597	0.062	G	2.41%	61,265	9,736	0.081	G	48,446	16,546	0.174	F	1.63%	4.66	3.69	0.79
Common Snipe	12	633	358	0.288	P	16.67%	1,530	1,007	0.336	P	921	558	0.309	P	34.38%	2.42	1.45	0.60
Coyote	723	26,058	1,777	0.035	G	10.65%	181,115	24,764	0.070	G	27,151	3,952	0.074	G	14.87%	6.95	1.04	0.15
Doe	4616	243,584	3,164	0.007	G	0.00%	3,478,064	98,740	0.014	G	106,267	6,692	0.032	G	0.00%	14.28	0.44	0.03
Dove	1477	69,210	3,046	0.022	G	0.14%	219,394	12,297	0.029	G	1,037,257	68,261	0.034	G	0.01%	3.17	14.99	4.73
Ducks	869	35,362	2,168	0.031	G	0.00%	287,577	21,131	0.037	G	465,869	55,501	0.061	G	0.00%	8.13	13.17	1.62
Feral Swine	183	9,657	1,377	0.073	G	1.64%	78,167	20,221	0.132	G	13,734	8,141	0.302	P	1.92%	8.09	1.42	0.18
Fox	96	5,066	1,005	0.101	G	8.33%	40,963	12,113	0.151	F	5,335	2,007	0.192	F	8.90%	8.09	1.05	0.13
Fox Squirrel	113	5,963	1,089	0.093	G	1.77%	30,395	8,129	0.136	G	7,081	1,820	0.131	G	3.73%	5.10	1.19	0.23
Gray Squirrel	1426	75,249	3,391	0.023	G	0.35%	488,215	30,958	0.032	G	649,258	48,569	0.038	G	0.14%	6.49	8.63	1.33
Grouse	97	5,119	1,010	0.101	G	0.00%	35,250	9,211	0.133	G	5,758	2,798	0.248	P	0.00%	6.89	1.13	0.16
Rabbit	918	48,442	2,875	0.030	G	0.54%	353,395	34,188	0.049	G	341,508	44,793	0.067	G	0.09%	7.30	7.05	0.97
Raccoon	235	12,401	1,553	0.064	G	2.55%	205,768	43,831	0.109	G	70,854	13,669	0.098	G	0.89%	16.59	5.71	0.34
Turkey	1431	62,016	2,788	0.023	G	0.07%	302,904	14,162	0.024	G	24,307	2,381	0.050	G	0.53%	4.88	0.39	0.08
Woodcock	28	1,478	546	0.189	F	3.57%	8,549	3,701	0.221	P	3,483	1,430	0.210	P	1.52%	5.79	2.36	0.41

Total # of license holders	600,560
Deceased license holder rate	0.0088892
Adj Total # of license holders	595,221
Total # of surveys sent	26,999
Undeliverables	2,495
Deceased	240
Sample size	24,264
Sample rate	4.08%
Total Survey Returns	10,899
Refused	127
Total Survey Responses	10,772
Response rate	44.39%
Total Not Responding	13,492

Active Hunter Estimate	
# of Active Hunters from Respondents	5,790
Proportion of Responding Hunters	0.5375046
Estimated Proportion of Non-responding Hunters	0.4940000
SE	0.0048039
PSE	0.0089375
Total Active Licensed Hunters	305,535
Margin of Error @ 95% CL	5,352
Active Hunter Rate within All License Holders	51.33%

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
2012-2013 Hunter Harvest Survey
Date Generated: 09/10/2013
Region: Statewide

All Deer

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	121,605	49.92%	121,605	49.92%
1	57,119	23.45%	178,724	73.37%
2	30,108	12.36%	208,832	85.73%
3	15,321	6.29%	224,153	92.02%
4	9,662	3.97%	233,815	95.99%
5	3,950	1.62%	237,765	97.61%
>= 6	5,819	2.39%	243,584	100.00%

All Squirrels

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	10,839	14.15%	10,839	14.15%
1	4,218	5.51%	15,057	19.65%
2	7,582	9.90%	22,639	29.55%
3	5,660	7.39%	28,299	36.93%
4	6,568	8.57%	34,867	45.51%
5	5,446	7.11%	40,313	52.61%
>= 6	36,308	47.39%	76,621	100.00%

Antlered Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	160,041	65.70%	160,041	65.70%
1	57,973	23.80%	218,014	89.50%
2	18,737	7.69%	236,751	97.19%
3	4,751	1.95%	241,502	99.15%
4	1,762	0.72%	243,264	99.87%
5	107	0.04%	243,371	99.91%
>= 6	214	0.09%	243,585	100.00%

Antlered/Button Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	152,087	62.44%	152,087	62.44%
1	59,895	24.59%	211,982	87.03%
2	22,848	9.38%	234,830	96.41%
3	6,032	2.48%	240,862	98.88%
4	2,189	0.90%	243,051	99.78%
5	267	0.11%	243,318	99.89%
>= 6	267	0.11%	243,585	100.00%

Bear

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	14,305	84.71%	14,305	84.71%
1	2,581	15.29%	16,886	100.00%
2	0	0.00%	16,886	100.00%
3	0	0.00%	16,886	100.00%
4	0	0.00%	16,886	100.00%
5	0	0.00%	16,886	100.00%
>= 6	0	0.00%	16,886	100.00%

Bobcat

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	2,533	44.86%	2,533	44.86%
1	2,163	38.32%	4,696	83.18%
2	633	11.21%	5,329	94.39%
3	158	2.80%	5,487	97.20%
4	106	1.87%	5,593	99.07%
5	53	0.93%	5,646	100.00%
>= 6	0	0.00%	5,646	100.00%

Button Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	228,904	93.97%	228,904	93.97%
1	12,758	5.24%	241,662	99.21%
2	1,762	0.72%	243,424	99.93%
3	107	0.04%	243,531	99.98%
4	53	0.02%	243,584	100.00%
5	0	0.00%	243,584	100.00%
>= 6	0	0.00%	243,584	100.00%

Canada Geese

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	3,390	35.77%	3,390	35.77%
1	1,271	13.41%	4,661	49.19%
2	1,541	16.26%	6,202	65.45%
3	770	8.13%	6,972	73.58%
4	424	4.47%	7,396	78.05%
5	385	4.07%	7,781	82.11%
>= 6	1,695	17.89%	9,476	100.00%

Common Snipe

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	288	45.45%	288	45.45%
1	58	9.09%	346	54.55%
2	115	18.18%	461	72.73%
3	58	9.09%	519	81.82%
4	115	18.18%	634	100.00%
5	0	0.00%	634	100.00%
>= 6	0	0.00%	634	100.00%

Coyote

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	19,906	52.83%	19,906	52.83%
1	9,446	25.07%	29,352	77.90%
2	4,163	11.05%	33,515	88.95%
3	1,548	4.11%	35,063	93.06%
4	1,174	3.12%	36,237	96.18%
5	320	0.85%	36,557	97.03%
>= 6	1,121	2.97%	37,678	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	170,770	70.11%	170,770	70.11%
1	41,905	17.20%	212,675	87.31%
2	18,524	7.60%	231,199	94.92%
3	6,780	2.78%	237,979	97.70%
4	3,150	1.29%	241,129	98.99%
5	961	0.39%	242,090	99.39%
>= 6	1,495	0.61%	243,585	100.00%

Dove

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	7,565	9.71%	7,565	9.71%
1	2,238	2.87%	9,803	12.58%
2	3,516	4.51%	13,319	17.09%
3	3,569	4.58%	16,888	21.67%
4	2,930	3.76%	19,818	25.43%
5	3,836	4.92%	23,654	30.35%
>= 6	54,286	69.65%	77,940	100.00%

Ducks

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	6,430	18.23%	6,430	18.23%
1	2,376	6.74%	8,806	24.97%
2	2,335	6.62%	11,141	31.59%
3	2,498	7.08%	13,639	38.68%
4	2,376	6.74%	16,015	45.41%
5	1,352	3.83%	17,367	49.25%
>= 6	17,898	50.75%	35,265	100.00%

Feral Swine

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	5,634	58.66%	5,634	58.66%
1	2,146	22.35%	7,780	81.01%
2	644	6.70%	8,424	87.71%
3	376	3.91%	8,800	91.62%
4	107	1.12%	8,907	92.74%
5	268	2.79%	9,175	95.53%
>= 6	429	4.47%	9,604	100.00%

Fox

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	1,994	39.78%	1,994	39.78%
1	1,994	39.78%	3,988	79.57%
2	647	12.90%	4,635	92.47%
3	216	4.30%	4,851	96.77%
4	108	2.15%	4,959	98.92%
5	0	0.00%	4,959	98.92%
>= 6	54	1.08%	5,013	100.00%

Fox Squirrel

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	2,715	45.54%	2,715	45.54%
1	1,650	27.68%	4,365	73.21%
2	586	9.82%	4,951	83.04%
3	586	9.82%	5,537	92.86%
4	106	1.79%	5,643	94.64%
5	53	0.89%	5,696	95.54%
>= 6	266	4.46%	5,962	100.00%

Gray Squirrel

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	10,307	13.70%	10,307	13.70%
1	3,899	5.18%	14,206	18.88%
2	7,584	10.08%	21,790	28.96%
3	5,608	7.45%	27,398	36.41%
4	6,409	8.52%	33,807	44.93%
5	5,287	7.03%	39,094	51.95%
>= 6	36,156	48.05%	75,250	100.00%

Grouse

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	3,466	67.71%	3,466	67.71%
1	640	12.50%	4,106	80.21%
2	267	5.21%	4,373	85.42%
3	373	7.29%	4,746	92.71%
4	53	1.04%	4,799	93.75%
5	53	1.04%	4,852	94.79%
>= 6	267	5.21%	5,119	100.00%

Bobwhite Quail

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	7,454	44.98%	7,454	44.98%
1	1,548	9.34%	9,002	54.33%
2	1,204	7.27%	10,206	61.59%
3	917	5.54%	11,123	67.13%
4	803	4.84%	11,926	71.97%
5	115	0.69%	12,041	72.66%
>= 6	4,530	27.34%	16,571	100.00%

Rabbit

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	10,718	22.20%	10,718	22.20%
1	5,520	11.43%	16,238	33.63%
2	7,020	14.54%	23,258	48.17%
3	3,858	7.99%	27,116	56.16%
4	3,912	8.10%	31,028	64.26%
5	2,358	4.88%	33,386	69.15%
>= 6	14,898	30.85%	48,284	100.00%

Raccoon

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	2,067	16.67%	2,067	16.67%
1	2,279	18.38%	4,346	35.04%
2	1,643	13.25%	5,989	48.29%
3	1,325	10.68%	7,314	58.97%
4	848	6.84%	8,162	65.81%
5	477	3.85%	8,639	69.66%
>= 6	3,763	30.34%	12,402	100.00%

Turkey

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	53,279	71.00%	53,279	71.00%
1	15,093	20.11%	68,372	91.12%
2	6,346	8.46%	74,718	99.57%
3	53	0.07%	74,771	99.64%
4	53	0.07%	74,824	99.72%
5	160	0.21%	74,984	99.93%
>= 6	53	0.07%	75,037	100.00%

Woodcock

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	528	35.71%	528	35.71%
1	158	10.71%	686	46.43%
2	158	10.71%	844	57.14%
3	211	14.29%	1,055	71.43%
4	264	17.86%	1,319	89.29%
5	0	0.00%	1,319	89.29%
>= 6	158	10.71%	1,477	100.00%