

**Hunting Estimates Report
2013-2014 Hunter Harvest Survey
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	258,409	3,283	0.006	G	0.00%	3,671,258	102,622	0.014	G	238,185	10,335	0.022	G	0.00%	14.21	0.92	0.06	
Antlered/Button Buck	258,409	3,283	0.006	G	0.00%	3,671,258	102,622	0.014	G	117,281	5,330	0.023	G	0.00%	14.21	0.45	0.03	
All Squirrels	70,828	3,153	0.023	G	0.82%	470,960	34,391	0.037	G	553,415	44,531	0.041	G	0.34%	6.65	7.81	1.18	
Antlered Buck	258,409	3,283	0.006	G	0.00%	3,671,258	102,622	0.014	G	106,923	4,894	0.023	G	0.00%	14.21	0.41	0.03	
Bear	18,094	1,897	0.053	G	0.00%	138,829	18,975	0.070	G	3,336	747	0.114	G	0.00%	7.67	0.18	0.02	
Bobcat	4,606	978	0.108	G	32.14%	18,816	8,252	0.224	P	3,440	792	0.117	G	49.40%	4.09	0.75	0.18	
Bobwhite Quail	13,817	1,669	0.062	G	0.40%	76,988	12,061	0.080	G	80,863	25,860	0.163	F	0.07%	5.57	5.85	1.05	
Button Buck	258,409	3,283	0.006	G	0.00%	3,671,258	102,622	0.014	G	10,358	1,556	0.077	G	0.00%	14.21	0.04	0.00	
Canada Geese	13,323	1,640	0.063	G	2.47%	75,950	10,951	0.074	G	42,182	7,690	0.093	G	1.43%	5.70	3.17	0.56	
Coyote	34,448	2,342	0.035	G	10.58%	223,617	30,564	0.070	G	34,972	4,769	0.070	G	17.18%	6.49	1.02	0.16	
Crow	15,078	1,740	0.059	G	5.82%	69,292	12,292	0.091	G	97,504	27,382	0.143	G	1.74%	4.60	6.47	1.41	
Doe	258,409	3,283	0.006	G	0.00%	3,671,258	102,622	0.014	G	120,904	7,110	0.030	G	0.00%	14.21	0.47	0.03	
Dove	80,835	3,399	0.021	G	0.00%	233,039	12,860	0.028	G	1,075,833	66,497	0.032	G	0.00%	2.88	13.31	4.62	
Ducks	44,406	2,624	0.030	G	0.00%	378,410	26,839	0.036	G	623,998	61,768	0.051	G	0.00%	8.52	14.05	1.65	
Feral Swine	8,773	1,341	0.078	G	5.63%	65,514	15,423	0.120	G	13,959	7,502	0.274	P	4.71%	7.47	1.59	0.21	
Fox	4,770	995	0.106	G	20.69%	30,174	12,098	0.205	P	5,547	2,277	0.209	P	20.76%	6.33	1.16	0.18	
Fox Squirrel	5,483	1,065	0.099	G	5.00%	26,575	6,881	0.132	G	7,421	2,318	0.159	F	12.56%	4.85	1.35	0.28	
Gray Squirrel	70,266	3,164	0.023	G	0.70%	471,392	34,501	0.037	G	552,056	44,473	0.041	G	0.33%	6.71	7.86	1.17	
Grouse	2,153	481	0.114	G	0.00%	12,978	3,371	0.133	G	1,842	1,075	0.298	P	0.00%	6.03	0.86	0.14	
Rabbit	53,842	3,073	0.029	G	1.32%	331,686	28,594	0.044	G	293,486	39,763	0.069	G	0.45%	6.16	5.45	0.88	
Raccoon	14,530	1,710	0.060	G	4.53%	213,325	47,543	0.114	G	69,278	12,514	0.092	G	1.50%	14.68	4.77	0.32	
Turkey	67,728	3,045	0.023	G	0.00%	327,792	14,557	0.023	G	27,931	2,405	0.044	G	0.00%	4.84	0.41	0.09	
Woodcock	2,467	718	0.148	G	13.33%	6,112	3,170	0.265	P	4,989	2,490	0.255	P	9.89%	2.48	2.02	0.82	

Total # of license holders	626,582
Deceased license holder rate	0.0092807
Adj Total # of license holders	620,766
Total # of surveys sent	27,692
Undeliverables	2,195
Deceased	257
Sample size	25,240
Sample rate	4.07%
Total Survey Returns	11,062
Refused	151
Total Survey Responses	10,911
Response rate	43.23%
Total Not Responding	14,329

Active Hunter Estimate	
# of Active Hunters from Respondents	5,877
Proportion of Responding Hunters	0.5386307
Estimated Proportion of Non-responding Hunters	0.5042000
SE	0.0047724
PSE	0.0088603
Total Active Licensed Hunters	322,230
Margin of Error @ 95% CL	5,596
Active Hunter Rate within All License Holders	51.91%

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
2013-2014 Hunter Harvest Survey
Region: Statewide**

All Deer

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	126,118	48.81%	126,118	48.81%
1	63,004	24.38%	189,122	73.19%
2	33,476	12.95%	222,598	86.14%
3	15,070	5.83%	237,668	91.97%
4	9,898	3.83%	247,566	95.80%
5	5,227	2.02%	252,793	97.83%
>= 6	5,616	2.17%	258,409	100.00%

All Squirrels

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	11,152	13.95%	11,152	13.95%
1	6,018	7.53%	17,170	21.48%
2	8,502	10.64%	25,672	32.11%
3	7,453	9.32%	33,125	41.44%
4	6,128	7.67%	39,253	49.10%
5	5,355	6.70%	44,608	55.80%
>= 6	35,333	44.20%	79,941	100.00%

Antlered Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	169,548	65.61%	169,548	65.61%
1	62,559	24.21%	232,107	89.82%
2	19,852	7.68%	251,959	97.50%
3	4,838	1.87%	256,797	99.38%
4	1,501	0.58%	258,298	99.96%
5	111	0.04%	258,409	100.00%
>= 6	0	0.00%	258,409	100.00%

Antlered/Button Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	161,707	62.58%	161,707	62.58%
1	65,561	25.37%	227,268	87.95%
2	21,798	8.44%	249,066	96.38%
3	6,784	2.63%	255,850	99.01%
4	1,835	0.71%	257,685	99.72%
5	556	0.22%	258,241	99.94%
>= 6	167	0.06%	258,408	100.00%

Bear

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	14,537	81.33%	14,537	81.33%
1	3,337	18.67%	17,874	100.00%
2	0	0.00%	17,874	100.00%
3	0	0.00%	17,874	100.00%
4	0	0.00%	17,874	100.00%
5	0	0.00%	17,874	100.00%
>= 6	0	0.00%	17,874	100.00%

Bobcat

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	1,776	39.02%	1,776	39.02%
1	2,387	52.44%	4,163	91.46%
2	222	4.88%	4,385	96.34%
3	56	1.22%	4,441	97.56%
4	111	2.44%	4,552	100.00%
5	0	0.00%	4,552	100.00%
>= 6	0	0.00%	4,552	100.00%

Button Buck

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	243,395	94.19%	243,395	94.19%
1	13,235	5.12%	256,630	99.31%
2	1,501	0.58%	258,131	99.89%
3	167	0.06%	258,298	99.96%
4	56	0.02%	258,354	99.98%
5	0	0.00%	258,354	99.98%
>= 6	56	0.02%	258,410	100.00%

Canada Geese

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	3,071	31.95%	3,071	31.95%
1	1,635	17.01%	4,706	48.96%
2	1,755	18.26%	6,461	67.22%
3	479	4.98%	6,940	72.20%
4	359	3.73%	7,299	75.93%
5	439	4.56%	7,738	80.50%
>= 6	1,875	19.50%	9,613	100.00%

Coyote

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	20,622	51.81%	20,622	51.81%
1	10,339	25.97%	30,961	77.78%
2	4,920	12.36%	35,881	90.14%
3	1,824	4.58%	37,705	94.72%
4	553	1.39%	38,258	96.11%
5	498	1.25%	38,756	97.36%
>= 6	1,050	2.64%	39,806	100.00%

Crow

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	1,836	12.22%	1,836	12.22%
1	2,838	18.89%	4,674	31.11%
2	2,615	17.41%	7,289	48.52%
3	1,447	9.63%	8,736	58.15%
4	1,168	7.78%	9,904	65.93%
5	890	5.93%	10,794	71.85%
>= 6	4,229	28.15%	15,023	100.00%

Doe

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	178,834	69.21%	178,834	69.21%
1	45,042	17.43%	223,876	86.64%
2	20,575	7.96%	244,451	94.60%
3	7,952	3.08%	252,403	97.68%
4	3,448	1.33%	255,851	99.01%
5	1,168	0.45%	257,019	99.46%
>= 6	1,390	0.54%	258,409	100.00%

Dove

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	10,662	12.27%	10,662	12.27%
1	2,388	2.75%	13,050	15.02%
2	4,165	4.79%	17,215	19.81%
3	3,998	4.60%	21,213	24.41%
4	4,109	4.73%	25,322	29.14%
5	4,498	5.18%	29,820	34.31%
>= 6	57,085	65.69%	86,905	100.00%

Ducks

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	6,305	16.61%	6,305	16.61%
1	2,225	5.86%	8,530	22.48%
2	2,844	7.49%	11,374	29.97%
3	2,102	5.54%	13,476	35.50%
4	2,308	6.08%	15,784	41.59%
5	1,772	4.67%	17,556	46.25%
>= 6	20,400	53.75%	37,956	100.00%

Feral Swine

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	4,414	50.96%	4,414	50.96%
1	2,097	24.20%	6,511	75.16%
2	828	9.55%	7,339	84.71%
3	607	7.01%	7,946	91.72%
4	221	2.55%	8,167	94.27%
5	110	1.27%	8,277	95.54%
>= 6	386	4.46%	8,663	100.00%

Fox

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	1,719	36.05%	1,719	36.05%
1	2,108	44.19%	3,827	80.23%
2	610	12.79%	4,437	93.02%
3	222	4.65%	4,659	97.67%
4	0	0.00%	4,659	97.67%
5	0	0.00%	4,659	97.67%
>= 6	111	2.33%	4,770	100.00%

Fox Squirrel

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	2,548	46.46%	2,548	46.46%
1	1,551	28.28%	4,099	74.75%
2	277	5.05%	4,376	79.80%
3	498	9.09%	4,874	88.89%
4	166	3.03%	5,040	91.92%
5	166	3.03%	5,206	94.95%
>= 6	277	5.05%	5,483	100.00%

Gray Squirrel

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	10,988	13.98%	10,988	13.98%
1	5,521	7.03%	16,509	21.01%
2	8,613	10.96%	25,122	31.97%
3	7,233	9.21%	32,355	41.18%
4	5,963	7.59%	38,318	48.77%
5	5,356	6.82%	43,674	55.59%
>= 6	34,895	44.41%	78,569	100.00%

Grouse

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	2,796	67.11%	2,796	67.11%
1	768	18.42%	3,564	85.53%
2	219	5.26%	3,783	90.79%
3	110	2.63%	3,893	93.42%
4	110	2.63%	4,003	96.05%
5	55	1.32%	4,058	97.37%
>= 6	110	2.63%	4,168	100.00%

Bobwhite Quail

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	6,513	47.33%	6,513	47.33%
1	1,019	7.41%	7,532	54.73%
2	850	6.17%	8,382	60.91%
3	793	5.76%	9,175	66.67%
4	623	4.53%	9,798	71.19%
5	396	2.88%	10,194	74.07%
>= 6	3,568	25.93%	13,762	100.00%

Rabbit

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	12,305	22.90%	12,305	22.90%
1	7,573	14.09%	19,878	36.99%
2	8,742	16.27%	28,620	53.26%
3	4,232	7.88%	32,852	61.14%
4	4,232	7.88%	37,084	69.02%
5	3,285	6.11%	40,369	75.13%
>= 6	13,363	24.87%	53,732	100.00%

Raccoon

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	2,265	15.59%	2,265	15.59%
1	3,204	22.05%	5,469	37.64%
2	2,210	15.21%	7,679	52.85%
3	1,326	9.13%	9,005	61.98%
4	1,105	7.60%	10,110	69.58%
5	1,105	7.60%	11,215	77.19%
>= 6	3,315	22.81%	14,530	100.00%

Turkey

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	53,391	68.05%	53,391	68.05%
1	18,115	23.09%	71,506	91.14%
2	6,898	8.79%	78,404	99.93%
3	0	0.00%	78,404	99.93%
4	0	0.00%	78,404	99.93%
5	0	0.00%	78,404	99.93%
>= 6	56	0.07%	78,460	100.00%

Woodcock

Number Killed	Number of Hunters	Percent of Hunters	Cumulative Frequency	Cumulative Percent
0	932	37.78%	932	37.78%
1	822	33.33%	1,754	71.11%
2	219	8.89%	1,973	80.00%
3	164	6.67%	2,137	86.67%
4	0	0.00%	2,137	86.67%
5	55	2.22%	2,192	88.89%
>= 6	274	11.11%	2,466	100.00%