

**North Carolina Hunting Estimates Report  
2015-2016 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	249,712	3,424	0.007	G	0.00%	3,872,497	116,165	0.015	G	231,137	10,294	0.023	G	0.00%	15.51	0.93	0.06
Antlered/Button Buck	249,712	3,424	0.007	G	0.00%	3,872,497	116,165	0.015	G	122,872	5,959	0.025	G	0.00%	15.51	0.49	0.03
All Squirrels	62,116	3,375	0.028	G	0.38%	413,049	36,568	0.045	G	506,403	49,611	0.050	G	0.16%	6.65	8.15	1.23
Antlered Buck	249,712	3,424	0.007	G	0.00%	3,872,497	116,165	0.015	G	111,331	5,533	0.025	G	0.00%	15.51	0.45	0.03
Bear	26,536	2,357	0.045	G	0.45%	182,259	18,514	0.052	G	3,604	827	0.117	G	3.30%	6.87	0.14	0.02
Bobcat	4,046	955	0.120	G	20.59%	24,454	10,090	0.211	P	3,985	1,345	0.172	F	23.89%	6.04	0.98	0.16
Bobwhite Quail	12,078	1,629	0.069	G	0.99%	64,935	10,789	0.085	G	55,869	20,553	0.188	F	1.60%	5.38	4.63	0.86
Button Buck	249,712	3,424	0.007	G	0.00%	3,872,497	116,165	0.015	G	11,542	1,856	0.082	G	0.00%	15.51	0.05	0.00
Canada Geese	13,447	1,715	0.065	G	1.77%	65,173	12,517	0.098	G	38,350	9,703	0.129	G	2.33%	4.85	2.85	0.59
Coyote	31,321	2,306	0.038	G	10.88%	282,094	55,159	0.100	G	47,649	13,212	0.141	G	12.09%	9.01	1.52	0.17
Doe	249,712	3,424	0.007	G	0.00%	3,872,497	116,165	0.015	G	108,265	6,894	0.032	G	0.00%	15.51	0.43	0.03
Dove	75,800	3,626	0.024	G	0.00%	214,350	13,031	0.031	G	1,047,268	78,701	0.038	G	0.00%	2.83	13.82	4.89
Ducks	43,046	2,621	0.031	G	0.00%	370,527	28,879	0.040	G	607,632	66,767	0.056	G	0.00%	8.61	14.12	1.64
Feral Swine	8,151	1,347	0.084	G	4.38%	61,566	14,915	0.124	G	13,246	5,120	0.197	F	3.59%	7.55	1.63	0.22
Fox	3,689	913	0.126	G	16.13%	31,540	11,519	0.186	F	4,596	1,958	0.217	P	18.12%	8.55	1.25	0.15
Fox Squirrel	4,165	969	0.119	G	1.43%	15,741	3,138	0.102	G	4,760	1,570	0.168	F	2.50%	3.78	1.14	0.30
Gray Squirrel	60,985	3,352	0.028	G	0.39%	407,824	36,242	0.045	G	501,709	49,362	0.050	G	0.17%	6.69	8.23	1.23
Grouse	3,927	941	0.122	G	7.58%	26,038	8,164	0.160	F	6,426	2,688	0.213	P	14.81%	6.63	1.64	0.25
Rabbit	39,923	2,822	0.036	G	0.75%	268,923	30,296	0.057	G	248,779	42,388	0.087	G	0.26%	6.74	6.23	0.93
Raccoon	11,781	1,610	0.070	G	5.05%	197,645	42,502	0.110	G	86,107	22,038	0.131	G	1.59%	16.78	7.31	0.44
Turkey	68,564	3,220	0.024	G	0.00%	368,437	17,612	0.024	G	23,744	2,241	0.048	G	0.00%	5.37	0.35	0.06
Woodcock	2,320	726	0.160	F	5.13%	10,011	2,402	0.122	G	8,627	3,954	0.234	P	2.76%	4.31	3.72	0.86

Total # of license holders	649,155
Deceased license holder rate	0.0117932
Adj Total # of license holders	641,499
Total # of surveys sent	29,678
Undeliverables	2,271
Deceased	350
Sample size	27,057
Sample rate	4.22%
Total Survey Returns	11,369
Refused	66
Total Survey Responses	11,303
Response rate	41.77%
Total Not Responding	15,754

<b>Active Hunter Estimate</b>	
# of Active Hunters from Respondents	5,282
Proportion of Responding Hunters	0.4673096
Estimated Proportion of Non-responding Hunters	0.5061000
SE	0.0046929
PSE	0.0100424
Total Active Licensed Hunters	314,267
Margin of Error @ 95% CL	6,186
Active Hunter Rate within All License Holders	48.99%

## 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:

	<b>Total Hunters</b>	<b>Total Days</b>	<b>Total Harvest</b>
<b>Poor</b>	> 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
<b>Fair</b>	>=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
<b>Good</b>	>= 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  
2015-2016 North Carolina Hunter Harvest Survey  
Region: Statewide**

**All Deer**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	133,753	53.56%	133,753	53.56%
1	56,507	22.63%	190,260	76.19%
2	31,079	12.45%	221,339	88.64%
3	14,487	5.80%	235,826	94.44%
4	6,793	2.72%	242,619	97.16%
5	3,907	1.56%	246,526	98.72%
>= 6	3,186	1.28%	249,712	100.00%

**All Squirrels**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	10,202	16.42%	10,202	16.42%
1	4,286	6.90%	14,488	23.32%
2	6,399	10.30%	20,887	33.62%
3	4,588	7.39%	25,475	41.01%
4	5,312	8.55%	30,787	49.56%
5	4,286	6.90%	35,073	56.46%
>= 6	27,044	43.54%	62,117	100.00%

**Antlered Buck**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	168,138	67.33%	168,138	67.33%
1	57,469	23.01%	225,607	90.35%
2	19,777	7.92%	245,384	98.27%
3	3,066	1.23%	248,450	99.49%
4	1,202	0.48%	249,652	99.98%
5	60	0.02%	249,712	100.00%
>= 6	0	0.00%	249,712	100.00%

**Antlered/Button Buck**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	162,547	65.09%	162,547	65.09%
1	59,813	23.95%	222,360	89.05%
2	21,400	8.57%	243,760	97.62%
3	4,088	1.64%	247,848	99.25%
4	1,503	0.60%	249,351	99.86%
5	240	0.10%	249,591	99.95%
>= 6	120	0.05%	249,711	100.00%

**Bear**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	22,333	86.09%	22,333	86.09%
1	3,608	13.91%	25,941	100.00%
2	0	0.00%	25,941	100.00%
3	0	0.00%	25,941	100.00%
4	0	0.00%	25,941	100.00%
5	0	0.00%	25,941	100.00%
>= 6	0	0.00%	25,941	100.00%

**Bobcat**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	1,594	39.39%	1,594	39.39%
1	1,839	45.45%	3,433	84.85%
2	245	6.06%	3,678	90.91%
3	245	6.06%	3,923	96.97%
4	0	0.00%	3,923	96.97%
5	0	0.00%	3,923	96.97%
>= 6	123	3.03%	4,046	100.00%

**Button Buck**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	239,733	96.00%	239,733	96.00%
1	8,716	3.49%	248,449	99.49%
2	1,142	0.46%	249,591	99.95%
3	0	0.00%	249,591	99.95%
4	60	0.02%	249,651	99.98%
5	60	0.02%	249,711	100.00%
>= 6	0	0.00%	249,711	100.00%

**Canada Geese**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	4,462	33.18%	4,462	33.18%
1	3,136	23.32%	7,598	56.50%
2	1,749	13.00%	9,347	69.51%
3	1,085	8.07%	10,432	77.58%
4	362	2.69%	10,794	80.27%
5	663	4.93%	11,457	85.20%
>= 6	1,990	14.80%	13,447	100.00%

**Coyote**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	15,536	49.75%	15,536	49.75%
1	8,025	25.70%	23,561	75.45%
2	3,601	11.53%	27,162	86.99%
3	1,389	4.45%	28,551	91.43%
4	463	1.48%	29,014	92.92%
5	412	1.32%	29,426	94.23%
>= 6	1,801	5.77%	31,227	100.00%

**Doe**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	184,068	73.71%	184,068	73.71%
1	39,675	15.89%	223,743	89.60%
2	16,351	6.55%	240,094	96.15%
3	5,891	2.36%	245,985	98.51%
4	2,224	0.89%	248,209	99.40%
5	721	0.29%	248,930	99.69%
>= 6	781	0.31%	249,711	100.00%

**Dove**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	8,349	11.02%	8,349	11.02%
1	2,943	3.89%	11,292	14.91%
2	3,424	4.52%	14,716	19.43%
3	3,304	4.36%	18,020	23.79%
4	3,183	4.20%	21,203	27.99%
5	4,385	5.79%	25,588	33.78%
>= 6	50,154	66.22%	75,742	100.00%

**Ducks**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	7,200	16.73%	7,200	16.73%
1	2,870	6.67%	10,070	23.39%
2	3,273	7.60%	13,343	30.99%
3	2,970	6.90%	16,313	37.89%
4	2,517	5.85%	18,830	43.74%
5	2,316	5.38%	21,146	49.12%
>= 6	21,901	50.88%	43,047	100.00%

**Feral Swine**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	4,616	57.89%	4,616	57.89%
1	1,439	18.05%	6,055	75.94%
2	779	9.77%	6,834	85.71%
3	300	3.76%	7,134	89.47%
4	0	0.00%	7,134	89.47%
5	120	1.50%	7,254	90.98%
>= 6	719	9.02%	7,973	100.00%

**Fox**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	1,633	44.26%	1,633	44.26%
1	1,089	29.51%	2,722	73.77%
2	665	18.03%	3,387	91.80%
3	0	0.00%	3,387	91.80%
4	60	1.64%	3,447	93.44%
5	121	3.28%	3,568	96.72%
>= 6	121	3.28%	3,689	100.00%

**Fox Squirrel**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	1,666	41.18%	1,666	41.18%
1	1,369	33.82%	3,035	75.00%
2	536	13.24%	3,571	88.24%
3	179	4.41%	3,750	92.65%
4	0	0.00%	3,750	92.65%
5	119	2.94%	3,869	95.59%
>= 6	179	4.41%	4,048	100.00%

**Gray Squirrel**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	9,903	16.25%	9,903	16.25%
1	3,864	6.34%	13,767	22.60%
2	6,340	10.41%	20,107	33.00%
3	4,408	7.23%	24,515	40.24%
4	5,314	8.72%	29,829	48.96%
5	4,348	7.14%	34,177	56.10%
>= 6	26,749	43.90%	60,926	100.00%

**Grouse**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	2,082	53.85%	2,082	53.85%
1	357	9.23%	2,439	63.08%
2	654	16.92%	3,093	80.00%
3	238	6.15%	3,331	86.15%
4	119	3.08%	3,450	89.23%
5	59	1.54%	3,509	90.77%
>= 6	357	9.23%	3,866	100.00%

**Bobwhite Quail**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	5,088	43.85%	5,088	43.85%
1	745	6.42%	5,833	50.27%
2	1,055	9.09%	6,888	59.36%
3	807	6.95%	7,695	66.31%
4	869	7.49%	8,564	73.80%
5	248	2.14%	8,812	75.94%
>= 6	2,792	24.06%	11,604	100.00%

**Rabbit**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	9,000	22.68%	9,000	22.68%
1	4,893	12.33%	13,893	35.01%
2	4,349	10.96%	18,242	45.97%
3	4,107	10.35%	22,349	56.32%
4	3,443	8.68%	25,792	64.99%
5	2,356	5.94%	28,148	70.93%
>= 6	11,537	29.07%	39,685	100.00%

**Raccoon**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	1,579	13.40%	1,579	13.40%
1	2,004	17.01%	3,583	30.41%
2	2,308	19.59%	5,891	50.00%
3	789	6.70%	6,680	56.70%
4	850	7.22%	7,530	63.92%
5	850	7.22%	8,380	71.13%
>= 6	3,401	28.87%	11,781	100.00%

**Turkey**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	49,591	72.48%	49,591	72.48%
1	13,855	20.25%	63,446	92.73%
2	4,975	7.27%	68,421	100.00%
3	0	0.00%	68,421	100.00%
4	0	0.00%	68,421	100.00%
5	0	0.00%	68,421	100.00%
>= 6	0	0.00%	68,421	100.00%

**Woodcock**

<b>Number Killed</b>	<b>Number of Hunters</b>	<b>Percent of Hunters</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
0	655	28.95%	655	28.95%
1	238	10.53%	893	39.47%
2	536	23.68%	1,429	63.16%
3	60	2.63%	1,489	65.79%
4	119	5.26%	1,608	71.05%
5	179	7.89%	1,787	78.95%
>= 6	476	21.05%	2,263	100.00%