

Wildlife Bureau Survey Note

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2014-15 Small Game Harvest Results

A random survey of licensed hunters was conducted following the 2014-15 small game season to determine the size and distribution of Iowa's small game harvest (Figure 1). Survey questionnaires were mailed to 7,845 license holders. Survey participants were asked which species they hunted, how many days they hunted, and how many of each species they harvested. Survey participants returned 2,908 usable questionnaires for a response rate of 37%. The DNR sold 215,923 unique hunting licenses in 2014-15, a 5% increase from the previous year. Based on survey responses an estimated 63,384 license holder's hunted small game (pheasant, quail, partridge, cottontail, or squirrel). This is a 9% increase in small game hunters compared to the year before.

By residency, the number of resident small game hunters increased 6%, from 51,608 in 2013 to 54,498 in 2014, while the number nonresident small game hunters increased 37% from 6,483 in 2013 to 8,886 in 2014. Pheasant were the most commonly reported species hunted by small game hunters (79%), while cottontails were the second most sought after species with 33% of small game hunters indicating they hunted rabbits (Table 1).

Hunters from 37 different states visited Iowa last fall to hunt. Over 52% of Iowa's nonresident hunters came from 4 states, Minnesota, Wisconsin, Michigan, and Illinois in that order. The typical small game hunter reported hunting about 8 days last fall.

Ring-necked Pheasant. - An estimated 49,925 pheasant hunters (23% of licensed hunters, 79% of small game hunters) took to Iowa's fields last fall and harvested 215,806 roosters (Table 1 & 2). The number of pheasant hunters increased 22%, while total harvest increased 30% compared to 2013 estimates. Both hunter numbers and harvest are the highest seen in the last 4 years. An estimated 8,725 nonresident hunters harvested 50,816 pheasants in 2014. Iowa's peak year for nonresident pheasant hunters was 1997 with 50,349. Resident hunter numbers increased 19% while the number of nonresident pheasant hunters increased 39% (Table 3).

Resident hunters hunted an average of 6 days last fall and harvested 4 birds during the season. Nonresident pheasant hunters averaged 4.3 days afield and harvested 6 birds for the season (Table 3). Hunter success (harvest/day) was highest through the first 9 days of the season (Table 4). Approximately 24% of the total pheasant harvest occurred in the first 9 days of the 2014 season (Table 4). Fifty-four percent of pheasant hunters reported hunting 4 days or less during the 2014 season. Resident hunters accounted for 76% of the total pheasant harvest. Nonresident hunters and hunters from NW and Central Iowa reported very good hunting success (Table 5).

The 2014 roadside survey showed a significant increase in Iowa's pheasant population thus the increase in hunters and harvest was expected. This marks the third consecutive year of increasing pheasant harvest, suggesting the population is showing a rebound from the catastrophic weather years of 2007-2011. The winter of 2014-15 was relatively mild, with a good nesting effort Iowa could see her best pheasant populations since 2007, with outlook for the fall of 2015 very promising for pheasant hunters.

Bobwhite Quail. - Approximately 6,546 quail hunters (3% of licensed hunters, 10% of small game hunters) harvested 10,705 quail during the 2014 quail season (Table 1 & 2). Hunter numbers increased 1% while harvest increased 23% compared to 2013 estimates. Quail hunters averaged 5 days a field and harvested 1.6 birds for the season (Table 3). Fifty-five percent of the quail harvest occurred in the first month of the 2014 season (Table 4). Sixty percent of Iowa quail hunters hunted 4 days or less during the 2014 season. Resident quail hunters accounted for 90% of the total quail harvest. Quail hunters in the SE region reported the best success last fall (Table 5).

The 2014 roadside counts were at a 10 year high for bobwhite so the higher harvest was expected. The mild winter of 2014-15 bodes well for good over winter survival, suggesting roadside counts in 2015 may be the highest we've seen for bobwhite since 1995. The outlook for bobwhite quail looks very promising this coming fall assuming good weather during nesting.

Table 1. Estimated proportion of 2014 license buyers (those who bought a hunting license) and proportion (who indicated they hunted small game) by species.

Species	Eligible Hunters	Small Game Hunters
Pheasants	23.1%	78.8%
Quail	3.0%	10.3%
Cottontail	9.7%	33.0%
Squirrels	9.2%	31.1%
Partridge	0.8%	2.6%
Mourning Dove	5.3%	13.4%

Note: Anyone who buys a general hunting license (deer, turkey, waterfowl, etc.) is eligible to hunt small game even though they do not intend to hunt small game.

Figure 1. Small game survey card.

2014-2015 Iowa Small Game Hunter Survey

Please report only YOUR SMALL GAME hunting IN IOWA. If you did not hunt small game in Iowa, please answer "No" to the first question and return this card.

Did you hunt SMALL GAME in IOWA during 2014-15? Yes No

Total number of days hunted in IOWA (for small game only):

Please report season totals **AND** period totals for pheasants and quail:
NOTE: the period totals must add up to equal the season total.

	Wild Pheasants (not game farm)				Wild Quail (not game farm)				
	SEASON TOTAL	Oct 25 to Nov 2	Nov 3-30	Dec 1 to Jan 10	SEASON TOTAL	Oct 25 to Nov 2	Nov 3-30	Dec 1 to Jan 10	Jan 11-31
Number YOU Harvested	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of Days Hunted	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Please report season totals for each species below:

	Cottontail Rabbit	Squirrel	Hungarian Partridge	Mourning Dove
	Number YOU Harvested	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of Days Hunted	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Did you hunt during the 2014 Youth Pheasant Season? Yes No

If YES, how many youths hunted with you and how many pheasants were harvested?

Youths Wild Pheasants Harvested

Machine-scanned form, please print neatly using blue or black ballpoint pen.

Please respond only in the spaces provided.

DO NOT make unnecessary marks on this form.

Table 2. Estimated small game hunters, harvest, effort by species and license type for the 2014-15 small game season.

License/Species	Hunters		Harvest		Days	
	estimate	95% CI	estimate	95% CI	estimate	95% CI
ALL LICENSE TYPES						
Pheasant	49,925 \pm	4,440	215,816 \pm	39,886	283,220 \pm	37,818
Quail	6,546 \pm	1,806	10,705 \pm	6,754	34,670 \pm	13,321
Cottontail Rabbit	20,904 \pm	3,269	102,379 \pm	25,946	97,618 \pm	23,054
Squirrel	19,704 \pm	3,199	110,600 \pm	30,672	100,439 \pm	24,672
Hungarian Partridge	1,631 \pm	930	451 \pm	520	8,071 \pm	7,574
Mourning Dove	11,396 \pm	2,462	137,927 \pm	45,154	43,950 \pm	14,585
				Total Days ^a	524,018	
RESIDENT HUNTERS						
Pheasant	41,200 \pm	4,317	165,000 \pm	36,748	245,934 \pm	36,254
Quail	5,428 \pm	1,723	9,666 \pm	6,690	30,538 \pm	13,129
Cottontail Rabbit	19,941 \pm	3,192	100,774 \pm	25,903	95,260 \pm	23,006
Squirrel	19,051 \pm	3,143	109,775 \pm	30,650	99,226 \pm	24,647
Hungarian Partridge	1,555 \pm	926	426 \pm	518	7,894 \pm	7,571
Mourning Dove	10,853 \pm	2,387	135,791 \pm	44,988	41,734 \pm	14,303
				Total Days	478,852	
NONRESIDENT HUNTERS						
Pheasant	8,725 \pm	1,037	50,816 \pm	15,503	37,286 \pm	10,767
Quail	1,118 \pm	541	1,039 \pm	923	4,132 \pm	2,255
Cottontail Rabbit	963 \pm	703	1,605 \pm	1,475	2,358 \pm	1,470
Squirrel	653 \pm	596	825 \pm	1,167	1,213 \pm	1,085
Hungarian Partridge	76 \pm	84	25 \pm	48	177 \pm	199
Mourning Dove	543 \pm	604	2136 \pm	3,878	2216 \pm	2,855
				Total Days	45,166	

^a Total days does not include mourning dove days of hunting for historical comparisons.

Estimated number of people who hunted (pheasant, quail, partridge, cottontail, and squirrels):

63,384 \pm 4,833

Estimated number of people who hunted upland game birds only (pheasant, quail, partridge) :

35,113 \pm 3,900

Estimated number of people who hunted small game mammals only (cottontail, squirrel):

13,219 \pm 2,626

Youth Pheasant Season

2,036 \pm 1,139 Adult Hunters
 3,259 \pm 2,832 Youths Hunted
 2,407 \pm 2,283 Harvest

Table 3. Estimated number of small game hunters, harvest, and days hunted, by license type, species, and year, in Iowa during in Iowa during the 2013-14 and 2014-15 small game seasons.

SPECIES	N	LICENSE TYPE								
		ALL LICENSE TYPES			RESIDENT			NONRESIDENT		
		2013	2014	%CHG	2013	2014	%CHG	2013	2014	%CHG
Ring-necked pheasant	694									
Hunters		40,981	49,925	22%	34,688	41,200	19%	6,293	8,725	39%
Harvest		166,554	215,816	30%	140,348	165,000	18%	26,206	50,816	94%
Days		270,993	283,220	5%	244,096	245,934	1%	26,897	37,286	39%
Harvest/hunter		4.1	4.3	6%	4.1	4.0	-1%	4.2	5.8	40%
Days/hunter		6.6	5.7	-14%	7.0	6.0	-15%	4.3	4.3	0%
Harvest/day		0.6	0.8	25%	0.6	0.7	18%	1.0	1.4	40%
Bobwhite quail	108 ^a									
Hunters		6,485	6,546	1%	6,165	5,428	-12%	320	1,118	249%
Harvest		8,708	10,705	23%	8,467	9,666	14%	241	1,039	331%
Days		48,896	34,670	-29%	47,635	30,538	-36%	1,261	4,132	228%
Harvest/hunter		1.3	1.6	22%	1.4	1.8	30%	0.8	0.9	24%
Days/hunter		7.5	5.3	-30%	7.7	5.6	-27%	3.9	3.7	-6%
Harvest/day		0.2	0.3	72%	0.2	0.3	78%	0.2	0.3	32%
Cottontail rabbit	319									
Hunters		18,903	20,904	11%	18,686	19,941	7%	217	963	344%
Harvest		79,985	102,379	28%	79,383	100,774	27%	602	1,605	167%
Days		86,100	97,618	13%	85,180	95,260	12%	920	2,358	156%
Harvest/hunter		4.2	4.9	16%	4.3	5.1	19%	2.8	1.7	-40%
Days/hunter		4.6	4.7	3%	4.6	4.8	5%	4.2	2.5	-42%
Harvest/day		0.9	1.1	13%	0.9	1.1	14%	0.7	0.7	5%
Squirrel	292									
Hunters		20,203	19,704	-2%	19,941	19,051	-4%	262	653	149%
Harvest		90,167	110,600	23%	88,179	109,775	24%	1,988	825	-59%
Days		82,973	100,439	21%	82,043	99,226	21%	930	1,213	30%
Harvest/hunter		4.5	5.6	26%	4.4	5.8	30%	7.6	1.3	-83%
Days/hunter		4.1	5.1	24%	4.1	5.2	27%	3.6	1.9	-48%
Harvest/day		1.1	1.1	1%	1.1	1.1	4%	2.1	0.7	-68%
Hungarian partridge	26 ^a									
Hunters		1,651	1,631	-1%	1,451	1,555	7%	200	76	-62%
Harvest		1,370	451	-67%	1,218	426	-65%	152	25	-84%
Days		11,134	8,071	-28%	10,390	7,894	-24%	744	177	-76%
Harvest/hunter		0.8	0.3	-66%	0.8	0.3	-68%	0.8	0.3	-57%
Days/hunter		6.7	5.0	-27%	7.2	5.1	-29%	3.7	2.3	-37%
Harvest/day		0.1	0.1	-50%	0.1	0.1	-58%	0.2	0.1	-30%
Mourning Dove	176 ^a									
Hunters		8,208	11,396	39%	7,851	10,853	38%	357	543	52%
Harvest		117,915	137,927	17%	114,417	135,791	19%	3,498	2,136	-39%
Days		34,707	43,950	27%	33,825	41,734	23%	882	2,216	151%
Harvest/hunter		14.4	12.1	-16%	14.6	12.5	-14%	9.8	3.9	-60%
Days/hunter		4.2	3.9	-9%	4.3	3.9	-11%	2.5	4.1	65%
Harvest/day		3.4	3.1	-8%	3.4	3.3	-4%	4.0	1.0	-76%

a - Small sample response, view estimates accordingly.

Table 4. Mean hunting effort and harvest by time period for pheasant and quail hunters during the 2014-15 small game season.

SPECIES	Mean days	Mean harvest	Harvest/day	Proportion of effort (days)	Proportion of the harvest
Ring-necked pheasants (N=557)					
Oct. 26- Nov. 3	1.44	1.21	0.84	22%	24%
Nov. 4- Nov. 30	2.81	2.16	0.77	44%	43%
Dec. 1- Jan. 10	2.17	1.65	0.76	34%	33%
Jan. 11- Jan 31	-	-	-	-	-
Bobwhite quail (N=65)					
Oct. 26- Nov. 3	1.02	0.26	0.26	19%	16%
Nov. 4- Nov. 30	2.12	0.65	0.30	40%	39%
Dec. 1- Jan. 10	1.57	0.59	0.37	30%	36%
Jan. 11- Jan 31	0.54	0.15	0.29	10%	9%

Table 5. Harvest and proportion of harvest by August roadside survey region for the 2014-15 small game season^a.

REGION	Ring-necked Pheasant		Bobwhite Quail		Cottontail Rabbit		Squirrel		Hungarian Partridge		Mourning Dove	
	N	%	N	%	N	%	N	%	N	%	N	%
NW	33,237	15.4%	208	1.9%	9,495	9.3%	1,038	0.9%	25	5.5%	9,976	7.2%
NC	15,874	7.4%	0	0.0%	5,813	5.7%	3,817	3.5%	325	72.1%	21,215	15.4%
NE	5,560	2.6%	408	3.8%	16,886	16.5%	28,553	25.8%	50	11.1%	17,119	12.4%
WC	19,867	9.2%	26	0.2%	16,624	16.2%	12,589	11.4%	0	0.0%	15,418	11.2%
C	51,083	23.7%	2,432	22.7%	15,497	15.1%	17,264	15.6%	26	5.8%	19,113	13.9%
EC	15,443	7.2%	2,273	21.2%	16,875	16.5%	21,629	19.6%	0	0.0%	25,051	18.2%
SW	5,284	2.4%	50	0.5%	3,587	3.5%	1,945	1.8%	0	0.0%	1,412	1.0%
SC	8,113	3.8%	773	7.2%	7,110	6.9%	5,981	5.4%	0	0.0%	12,135	8.8%
SE	6,753	3.1%	3,496	32.7%	8,809	8.6%	16,855	15.2%	0	0.0%	14,352	10.4%
Nonresident	54,602	25.3%	1,039	9.7%	1,683	1.6%	929	0.8%	25	5.5%	2,136	1.5%
Total	215,816		10,705		102,379		110,600		451		137,927	

^a County of residence is used to assign harvest location, which may not be where person hunted.