

Wildlife Bureau Survey Note

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2013-14 Small Game Harvest Results

A random survey of licensed hunters was conducted following the 2013-14 small game season to determine the size and distribution of Iowa's small game harvest (Figure 1). Survey questionnaires were mailed to 8,245 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 3,146 usable questionnaires for a response rate of 38%. The DNR sold 206,072 unique hunting licenses in 2013-14. Based on survey responses an estimated 58,091 license holder's hunted small game (pheasant, quail, partridge, cottontail, or squirrel). This is a 6% decrease in small game hunters compared to the year before.

By residency, the number of resident small game hunters decreased 7%, from 55,710 in 2012 to 51,608 in 2013, while the number nonresident small game hunters was unchanged from 2012 with 6,483 nonresident small game hunters. Pheasant were the most commonly reported species hunted by small game hunters (71%), while squirrels were the second most sought after species with 35% of small game hunters indicating they hunted squirrels (Table 1).

Hunters from 39 different states visited Iowa last fall to hunt. Over 54% of Iowa's nonresident hunters came from 4 states, Minnesota, Michigan, Wisconsin, and Illinois in that order. The typical small game hunter reported hunting about 9 days last fall.

Ring-necked Pheasant. - An estimated 40,981 pheasant hunters (20% of licensed hunters, 71% of small game hunters) took to Iowa's fields last fall and harvested 166,554 roosters (Table 1 & 2). The number of pheasant hunters decreased -13%, while total harvest increased 5% compared to 2012 estimates. Roadside counts showed the population decreased -18% compared to 2012, however hunters had more success than in 2012 suggesting that populations were higher than roadside counts indicated. An estimated 6,293 nonresident hunters harvested 26,206 pheasants in 2013. Iowa's peak year for nonresident pheasant hunters was 1997 with 50,349. Resident hunter numbers decreased -16% while the number of nonresident pheasant hunters increased 10% (Table 3).

Resident hunters hunted an average of 7 days last fall and harvested 4 birds during the season. Nonresident pheasant hunters averaged 4.3 days afield and harvested 4 birds for the season (Table 3). Hunter success (harvest/day) was highest through the first 9 days of the season (Table 4). Approximately 29% of the total pheasant harvest occurred in the first 9 days of the 2013 season (Table 4). Fifty-three percent of pheasant hunters reported hunting 4 days or less during the 2013 season. Resident hunters accounted for 84% of the total pheasant harvest.

The 2013 roadside survey suggested Iowa's pheasant population had declined, however hunter harvest indicated better bird numbers. Drought conditions during July/August of 2013 likely led to a poor roadside survey count in 2013. Early roadside counts in 2014 support this notion as populations in 2014 seem higher than possible through good reproduction alone, suggesting more birds (hens and roosters) were present in 2013 than roadside surveys indicated.

Bobwhite Quail. - Approximately 6,485 quail hunters (3% of licensed hunters, 11% of small game hunters) harvested 8,708 quail during the 2013 quail season (Table 1 & 2). Hunter

numbers declined -26% while harvest declined -57% compared to 2012 estimates. Quail hunters averaged 6 days a field and harvested 1 bird for the season (Table 3). Sixty-four percent of the quail harvest occurred in the first month of the 2013 season (Table 4). Sixty percent of Iowa quail hunters hunted 4 days or less during the 2013 season. Resident quail hunters accounted for 97% of the total quail harvest. The 2013 roadside counts showed quail numbers similar to 2012 thus the decline in hunters and harvest seems suspect and is more likely the result of small sample size of quail hunters in the survey.

Table 1. Estimated proportion of eligible 2013 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	19.9%	70.5%
Quail	3.2%	11.2%
Cottontail	9.2%	32.5%
Squirrels	9.8%	34.8%
Partridge	0.8%	2.8%
Mourning Dove	4.0%	13.4%

Note: Most Iowa hunters are required to have a general hunting license (deer, turkey, waterfowl, etc.) even though they do not intend to hunt small game.

Figure 1. Small game survey card.

2013-2014 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 2013-14? 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 26 to Nov 3	Nov 4-30	Dec 1 to Jan 10		SEASON TOTAL	Oct 26 to Nov 3	Nov 4-30	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"/>	<input type="text"/>
Number of Days Hunted	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Did you hunt during the 2013 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 only.

Table 2. Estimated small game hunters, harvest, effort by species and license type for the 2013-14 small game season.

License/Species	Hunters		Harvest		Days	
	estimate	95% CI	estimate	95% CI	estimate	95% CI
ALL LICENSE TYPES						
Pheasant	40,981	± 4,033	166,554	± 40,115	270,993	± 47,606
Quail	6,485	± 1,749	8,708	± 4,130	48,896	± 26,770
Cottontail Rabbit	18,903	± 2,965	79,985	± 21,323	86,100	± 20,643
Squirrel	20,203	± 3,079	90,167	± 21,188	82,973	± 17,397
Hungarian Partridge	1,651	± 843	1,370	± 1,615	11,134	± 6,982
Mourning Dove	8,208	± 1,987	117,915	± 44,231	34,707	± 15,778
				Total Days ^a	500,096	
RESIDENT HUNTERS						
Pheasant	34,688	± 3,836	140,348	± 39,410	244,096	± 47,179
Quail	6,165	± 1,739	8,467	± 4,119	47,635	± 26,756
Cottontail Rabbit	18,686	± 2,962	79,383	± 21,311	85,180	± 20,631
Squirrel	19,941	± 3,075	88,179	± 21,099	82,043	± 17,386
Hungarian Partridge	1,451	± 813	1,218	± 1,600	10,390	± 6,934
Mourning Dove	7,851	± 1,918	114,417	± 43,910	33,825	± 15,741
				Total Days	469,344	
NONRESIDENT HUNTERS						
Pheasant	6,293	± 1,242	26,206	± 7,495	26,897	± 6,369
Quail	320	± 185	241	± 298	1,261	± 905
Cottontail Rabbit	217	± 137	602	± 652	920	± 680
Squirrel	262	± 142	1,988	± 1,923	930	± 610
Hungarian Partridge	200	± 223	152	± 223	744	± 816
Mourning Dove	357	± 519	3498	± 5,319	882	± 1,083
				Total Days	30,752	

^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):

58,091 ± 4,647

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

30,666 ± 3,624

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

16,667 ± 2,936

Youth Pheasant Season

3,033 ± 1,319 Adult Hunters
 2,949 ± 1,619 Youths Hunted
 2,073 ± 1,474 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 2012-13 and 2013-14 small game seasons.

SPECIES	N	LICENSE TYPE								
		ALL LICENSE TYPES			RESIDENT			NONRESIDENT		
		2012	2013	%CHG	2012	2013	%CHG	2012	2013	%CHG
Ring-necked pheasant	679									
Hunters		47,180	40,981	-13%	41,437	34,688	-16%	5,743	6,293	10%
Harvest		158,099	166,554	5%	137,215	140,348	2%	20,884	26,206	25%
Days		286,375	270,993	-5%	261,828	244,096	-7%	24,547	26,897	10%
Harvest/hunter		3.4	4.1	21%	3.3	4.1	22%	3.6	4.2	14%
Days/hunter		6.1	6.6	9%	6.3	7.0	11%	4.3	4.3	0%
Harvest/day		0.6	0.6	11%	0.5	0.6	10%	0.9	1.0	14%
Bobwhite quail	122 ^a									
Hunters		8,769	6,485	-26%	7,947	6,165	-22%	822	320	-61%
Harvest		20,474	8,708	-57%	19,420	8,467	-56%	1,054	241	-77%
Days		43,343	48,896	13%	40,922	47,635	16%	2,421	1,261	-48%
Harvest/hunter		2.3	1.3	-42%	2.4	1.4	-44%	1.3	0.8	-41%
Days/hunter		4.9	7.5	53%	5.2	7.7	50%	3.0	3.9	34%
Harvest/day		0.5	0.2	-62%	0.5	0.2	-62%	0.4	0.2	-57%
Cottontail rabbit	336									
Hunters		18,247	18,903	4%	17,537	18,686	7%	710	217	-69%
Harvest		70,003	79,985	14%	67,720	79,383	17%	2,283	602	-74%
Days		81,105	86,100	6%	79,031	85,180	8%	2,074	920	-56%
Harvest/hunter		3.8	4.2	10%	3.9	4.3	10%	3.2	2.8	-14%
Days/hunter		4.4	4.6	2%	4.5	4.6	1%	2.9	4.2	45%
Harvest/day		0.9	0.9	8%	0.9	0.9	8%	1.1	0.7	-41%
Squirrel	349									
Hunters		21,698	20,203	-7%	20,519	19,941	-3%	1,179	262	-78%
Harvest		158,615	90,167	-43%	147,295	88,179	-40%	11,320	1,988	-82%
Days		124,814	82,973	-34%	120,662	82,043	-32%	4,152	930	-78%
Harvest/hunter		7.3	4.5	-39%	7.2	4.4	-38%	9.6	7.6	-21%
Days/hunter		5.8	4.1	-29%	5.9	4.1	-30%	3.5	3.6	1%
Harvest/day		1.3	1.1	-14%	1.2	1.1	-12%	2.7	2.1	-22%
Hungarian partridge	36 ^a									
Hunters		1,481	1,651	11%	1,349	1,451	8%	132	200	52%
Harvest		611	1,370	124%	460	1,218	165%	151	152	1%
Days		11,321	11,134	-2%	10,991	10,390	-5%	330	744	125%
Harvest/hunter		0.4	0.8	102%	0.3	0.8	147%	1.1	0.8	-33%
Days/hunter		7.6	6.7	-12%	8.2	7.2	-12%	2.5	3.7	49%
Harvest/day		0.1	0.1	140%	0.0	0.1	200%	0.5	0.2	-57%
Mourning Dove	160 ^a									
Hunters		9,328	8,208	-12%	9,244	7,851	-15%	84	357	325%
Harvest		94,864	117,915	24%	93,799	114,417	22%	1,065	3,498	228%
Days		29,018	34,707	20%	28,747	33,825	18%	271	882	225%
Harvest/hunter		10.2	14.4	41%	10.2	14.6	44%	12.7	9.8	-23%
Days/hunter		3.1	4.2	36%	3.1	4.3	39%	3.2	2.5	-24%
Harvest/day		3.3	3.4	4%	3.3	3.4	4%	3.9	4.0	1%

a - Small sample response, view estimates accordingly.

Table 4. Mean hunting effort and harvest by time period for pheasant and quail hunters during the 2013-14 small game season.

SPECIES	Mean days	Mean harvest	Harvest/day	Proportion of effort (days)	Proportion of the harvest
Ring-necked pheasants (N=513)					
Oct. 26- Nov. 3	1.78	1.34	0.75	25%	29%
Nov. 4- Nov. 30	3.14	2.03	0.65	45%	44%
Dec. 1- Jan. 10	2.11	1.23	0.58	30%	27%
Jan. 11- Jan 31	-	-	-	-	-
Bobwhite quail (N=68)					
Oct. 26- Nov. 3	1.44	0.38	0.27	20%	23%
Nov. 4- Nov. 30	2.97	0.66	0.22	41%	41%
Dec. 1- Jan. 10	2.35	0.49	0.21	32%	30%
Jan. 11- Jan 31	0.52	0.10	0.20	7%	6%

Table 5. Harvest and proportion of harvest by August roadside survey region for the 2013-14 small game season^a.

REGION	Ring-necked Pheasant		Bobwhite Quail		Cottontail Rabbit		Squirrel		Hungarian Partridge		Mourning Dove	
	N	%	N	%	N	%	N	%	N	%	N	%
NW	35,233	21.2%	0	0.0%	5,134	6.4%	2,258	2.5%	50	3.6%	12,801	10.9%
NC	25,517	15.3%	0	0.0%	7,255	9.1%	4,136	4.6%	852	62.2%	13,869	11.8%
NE	18,264	11.0%	696	8.0%	13,424	16.8%	36,056	40.0%	242	17.7%	15,690	13.3%
WC	17,765	10.7%	1,534	17.6%	5,431	6.8%	4,406	4.9%	0	0.0%	4,189	3.6%
C	25,561	15.3%	2,152	24.7%	5,842	7.3%	7,524	8.3%	74	5.4%	33,286	28.2%
EC	9,532	5.7%	1,136	13.0%	23,889	29.9%	18,826	20.9%	0	0.0%	10,378	8.8%
SW	3,169	1.9%	1,464	16.8%	1,122	1.4%	1,297	1.4%	0	0.0%	2,232	1.9%
SC	2,344	1.4%	1,123	12.9%	9,978	12.5%	6,201	6.9%	0	0.0%	13,948	11.8%
SE	3,224	1.9%	362	4.2%	7,308	9.1%	7,475	8.3%	0	0.0%	8,024	6.8%
Nonresident	25,945	15.6%	241	2.8%	602	0.8%	1,988	2.2%	152	11.1%	3,498	3.0%
Total	166,554		8,708		79,985		90,167		1,370		117,915	

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