

Wildlife Bureau Survey Note

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2023-24 Small Game Harvest Results

The small game survey underwent a substantial change this year when it changed from a postcard mail survey to a digital online survey following the 2023-24 hunting season. Iowa's first postcard survey to estimate small game harvest occurred in 1958. The postcard format had been used in all years prior to this year.

A random sample of licensed hunters was chosen from all hunting license buyers following the season to determine the size and distribution of Iowa's small game harvest (Figure 1). Survey letters were mailed to 8,230 deliverable license holders. Survey participants were asked to fill out an online survey of which species they hunted, how many days they hunted, what county they hunted, and how many of each species they harvested. Survey participants returned 2,122 usable questionnaires for a response rate of 26%. The DNR sold an estimated 240,120 unique hunting licenses in 2023-24, a 1% increase from the previous year. All resident and nonresident hunters (deer, turkey, waterfowl, and small game) are required to purchase a hunting license whether they intend to hunt small game or not. Based on survey responses, an estimated 39.4% of license holders (94,608) hunted small game (pheasant, quail, partridge, cottontail, or squirrel). Small game hunter numbers increased 28% from last year.

By residency, the number of resident small game hunters increased 28.3% from 73,778 in 2022, to 94,608 in 2023, while the number nonresident small game hunters increased 21.2% from 14,903 in 2022 to 18,063 in 2023. Pheasant were the most commonly reported species hunted by small game hunters (88%), while squirrels were the second most sought-after species with 23% of small game hunters indicating they hunted squirrels (Table 1).

Nonresident small game hunters from 37 different states visited Iowa last fall to hunt. Four states comprised 51% of Iowa's nonresident small game hunters, Minnesota, Wisconsin, Michigan, and Illinois in that order. The average small game hunter reported hunting 9.7 days last fall.

Ring-necked Pheasant. - An estimated 83,602 pheasant hunters (35% of licensed hunters, 88% of small game hunters) took to Iowa's fields last fall and harvested 590,685 roosters (Table 1 and Table 2). The last time Iowa harvested this many birds was 2007 when 631,000 roosters were harvested. The number of pheasant hunters increased 32%, while total harvest increased 62% compared to 2022 estimates. Broken down by resident and non-resident hunters, an estimated 66,151 resident hunters harvested 444,063 pheasants and 17,451 nonresident hunters harvested 146,622 pheasants in 2023. Iowa's peak year for nonresident pheasant hunters was 1997 with 50,349. Resident hunter numbers increased 32%, while nonresident pheasant hunter numbers increased 29% compared to 2022 (Table 3).

Resident hunters hunted an average of 7.5 days last fall and harvested 6.7 birds during the season. Nonresident pheasant hunters averaged 5.9 days afield and harvested 8.4 birds for the season (Table 3). Hunter success (harvest/day) was highest through the first 9 days of the season (Table 4). Approximately 30% of the total pheasant harvest occurred in the first 9 days of the 2023 season (Table 4). Over half of pheasant hunters reported hunting 4 days or less during the 2023 season. Resident hunters accounted for 75% of the total pheasant harvest. Resident hunters in the northern two-thirds of the state reported good hunting success with over 50,000+ roosters reported harvested in each region (Table 5). The 2023 roadside survey showed Iowa's pheasant population was 15% higher than 2022 with good counts in the northern two-thirds of the state and hunters took advantage of the abundant bird numbers.

Bobwhite Quail. - Approximately 11,928 quail hunters (5% of licensed hunters, 13% of small game hunters) harvested an estimated 30,232 quail during the 2023 quail season an increase (42%) over the 2022 estimate (Table 1 through Table 3). Hunter numbers increased 18% compared to 2022 the estimate. Quail hunters averaged 6.5 days a field and harvested 2.5 birds for the season (Table 3). Fifty-nine percent of the quail harvest occurred in the first month of the 2023 season (Table 4). Over fifty percent of Iowa quail hunters hunted 4 days or less during the 2023 season. Resident quail hunters


accounted for 70% of the total quail harvest. The 2023 roadside counts showed quail numbers were slightly lower (-13%) than in 2022, so the higher hunter numbers and harvest were unexpected.

Table 1. Estimated proportion of 2022 license buyers and small game hunters who hunted each species.

Species	Eligible Hunters ^a (%)	Small Game Hunters ^b (%)
Pheasants	34.8	88.4
Quail	5.0	12.6
Cottontail	8.2	20.8
Squirrels	9.2	23.2
Partridge	1.6	4.1
Mourning Dove	5.7	14.1

^aAll Iowa resident and nonresident hunters (deer, turkey, waterfowl, and small game) are required to purchase a hunting license. All are eligible to hunt small game (e.g. an estimated 34.8% of hunting license buyers hunted pheasants).

^bOf the licensed hunters who indicated they hunted small game an estimated 88% hunted pheasants).



IOWA DEPARTMENT OF NATURAL RESOURCES

GOVERNOR KIM REYNOLDS
LT. GOVERNOR ADAM GREGG
DIRECTOR KAYLA LYON

March 1, 2024

INSERT Address


Dear **INSERT FIRST NAME**,

The Iowa Department of Natural Resources (DNR) is conducting a survey of hunters who bought a hunting license to provide estimates of harvest and the number of people who hunted upland game during this past hunting season. You have been randomly selected from 150,000 buyers of Iowa hunting licenses to participate in the survey. We greatly appreciate your participation.

The survey consists of several questions that can be completed online at the URL below or by scanning the QR code with a mobile phone. Use the Survey ID # provided below to begin the survey. Step-by- step instructions are printed on the back of this letter. Submit only 1 survey, duplicates will be removed.

URL: <https://survey.alchemer.com/s3/7725078/IAUplandHarvest>

Survey ID #: ***INSERT SURVEY ID HERE BEFORE MAILING***



See back for more instructions on accessing the survey.

This survey is designed to help the Iowa DNR understand who hunted upland game this past hunting season. If you did not hunt any of the species listed in survey, we still need to hear from you. Our goal is to provide hunting opportunity that benefits the greatest number of hunters, and this survey will help inform decisions to reach that goal. Your input is important.

Thank you,

Figure 1. Online small game survey letter.

Table 2. Estimated small game hunters, harvest, effort by species and license type for the 2023-24 small game season.

License/ Species	Hunters			Harvest			Days		
	Estimate		95% CI	Estimate		95% CI	Estimate		95% CI
All License Types									
Pheasant	83,602	±	6,636	590,685	±	100,264	600,313	±	80,568
Quail	11,928	±	3,167	30,232	±	14,446	77,321	±	26,250
Cotton Tail Rabbit	19,660	±	4,071	68,451	±	22,658	97,288	±	31,225
Squirrel	21,932	±	4,213	94,398	±	29,478	99,409	±	28,238
Hungarian Partridge	3,838	±	1,799	2,251	±	1,847	38,199	±	24,898
Mourning Dove	13,729	±	3,359	194,835	±	70,272	46,961	±	17,583
						Total Days*	912,530	±	122,831
Resident Hunters									
Pheasant	66,151	±	6,463	444,063	±	91,107	497,730	±	77,536
Quail	9,359	±	2,886	21,014	±	13,023	65,980	±	25,486
Cotton Tail Rabbit	19,101	±	4,018	65,337	±	22,172	93,346	±	30,682
Squirrel	20,901	±	4,111	90,062	±	29,214	95,790	±	28,075
Hungarian Partridge	2,802	±	1,524	2,223	±	1,846	26,989	±	21,611
Mourning Dove	13,216	±	3,308	188,363	±	69,656	45,655	±	17,528
						Total Days*	779,835	±	118,764
Nonresident Hunters									
Pheasant	17,451	±	1,504	146,622	±	41,860	102,583	±	21,895
Quail	2,569	±	1,304	9,218	±	6,252	11,341	±	6,292
Cotton Tail Rabbit	555	±	653	3,114	±	4,661	3,942	±	5,804
Squirrel	1,031	±	923	,4336	±	3,941	3,619	±	3,029
Hungarian Partridge	1,036	±	956	28	±	54	11,210	±	12,362
Mourning Dove	513	±	584	6,472	±	9,291	1,306	±	1,394
						Total Days*	132,695		31,344

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

Estimated number of people who hunted small gam (pheasant, quail, partridge, cottontail, or squirrels): $94,608 \pm 6,823$.

Estimated number of people who hunted upland game birds only (pheasant, quail, partridge): $64,933 \pm 6,129$.

Estimated number of people who hunted small game mammals only (cottontail, squirrel): $11,006 \pm 3,095$

Youth Pheasant Season

9,367 ± 2,873 Adult Hunters

19,509 ± 14,371 Youth Hunters

9,118 ± 5,380 Harvested

Table 3. Estimated number of small game hunters, harvest, and days hunted, by license type, species, and year, in Iowa during the 2022-23 and 2023-24 small game seasons. N is most recent years sample size.

Species	N	All License Types			N	Resident			N	Nonresident		
		2022	2023	%CHG		2022	2023	%CHG		2022	2023	%CHG
Ring-necked pheasant	786				614				172			
Hunters		63,547	83,602	32		50,048	66,151	32		13,498	17,451	29
Harvest		364,436	590,685	62		294,170	444,063	51		70,266	146,622	109
Days		398,083	600,313	51		334,741	497,730	49		63,342	102,583	62
Harvest/Hunter		5.7	7.1	23		5.9	6.7	14		5.2	8.4	61
Days/Hunter		6.3	7.2	15		6.7	7.5	12		4.7	5.9	25
Harvest/Day		0.9	1.0	7		0.9	0.9	1		1.1	1.4	29
Bobwhite quail	128				94				34*			
Hunters		10,108	11,928	18		7,358	9,359	27		2,750	2,569	-7
Harvest		21,140	30,232	43		16,067	21,014	31		5,073	9,218	82
Days		63,261	77,321	22		47,785	65,980	38		15,476	11,341	-27
Harvest/Hunter		2.1	2.5	21		2.2	2.3	3		1.8	3.6	95
Days/Hunter		6.3	6.5	4		6.5	7.1	9		5.6	4.4	-22
Harvest/Day		0.3	0.4	18		0.3	0.3	-6		0.3	0.8	145
Cottontail rabbit	200				194				6*			
Hunters		16,315	19,660	21		15,349	19,101	24		965	559	-42
Harvest		88,940	68,451	-23		86,130	65,337	-24		2,810	3,114	11
Days		85,142	97,288	14		81,493	93,346	15		3,649	3,942	8
Harvest/Hunter		5.5	3.5	-36		5.6	3.4	-39		2.9	5.6	91
Days/Hunter		5.2	5.0	-5		5.3	4.9	-8		3.8	7.1	87
Harvest/Day		1.0	0.7	-33		1.1	0.7	-34		0.8	0.8	3
Squirrel	230				222				8*			
Hunters		14,440	21,932	52		13,241	20,901	58		1,159	1,031	-11
Harvest		85,246	94,398	11		78,921	90,062	14		6,325	4,336	-31
Days		64,435	99,409	54		60,505	95,790	58		3,930	3,619	-8
Harvest/Hunter		5.9	4.3	-27		6.0	4.3	-28		5.5	4.2	-23
Days/Hunter		4.5	4.5	1		4.6	4.6	0		3.4	3.5	4
Harvest/Day		1.3	1.0	-28		1.3	0.9	-28		1.6	1.2	-25
Hungarian partridge	43*				34*				9*			
Hunters		1,501	3,838	156		1,041	2,802	169		460	1,036	125
Harvest		1,207	2,251	86		1,067	2,223	108		140	28	-80
Days		11,665	38,199	227		10,691	26,989	152		974	11,210	1051
Harvest/Hunter		0.8	0.6	-26		1.0	0.8	-23		0.3	0.0	-90
Days/Hunter		7.8	10.0	28		10.3	9.6	-6		2.1	10.8	410
Harvest/Day		0.1	0.1			0.1	0.1			0.1	0.0	-100
Mourning dove	145				136				9*			
Hunters		9,851	13,729	39		9,363	13,216	41		488	513	5
Harvest		144,462	194,835	35		139,451	188,363	35		5,011	6,472	29
Days		37,228	46,961	26		36,546	45,655	25		682	1,306	91
Harvest/Hunter		14.7	14.2	-3		14.9	14.3	-4		10.3	12.6	23
Days/Hunter		3.8	3.4	-10		3.9	3.5	-12		1.4	2.6	82
Harvest/Day		3.9	4.2	7		3.8	4.1	8		7.4	5.0	-33

*Very small sample size, view estimates accordingly

Table 4. Mean hunting effort and harvest by time period for pheasant and quail hunters during the 2023-24 small game season.

Species	Mean Days	Mean Harvest	Harvest/Day	Proportion of Effort (days) (%)	Proportion of the Harvest (%)
Ring-necked pheasants (N = 480)					
First 9 Days*	1.80	2.09	1.16	24	30
Day 10 - Nov 30	3.10	2.78	0.90	42	40
Dec 1 - Jan 10	2.48	2.03	0.82	34	29
Jan 11 - Jan 31	-	-	-	-	-
Bobwhite quail (N = 69)					
First 9 Days*	1.68	0.61	0.36	24	23
Day 10 - Nov 30	2.67	0.97	0.36	38	36
Dec 1 - Jan 10	2.36	0.96	0.41	34	36
Jan 11 - Jan 31	0.24	0.13	0.54	3	5

*First 2 weekends of season

Table 5. Harvest and proportion of harvest by August roadside survey region for the 2023-24 small game season*

Region	Ring-necked Pheasant		Bobwhite Quail		Cottontail Rabbit		Squirrel		Hungarian Partridge		Mourning Dove	
	N	%	N	%	N	%	N	%	N	%	N	%
NW	110,916	18.8	584	1.9	4,119	6.0	6,056	6.4	641	28.5	24,292	12.5
NC	52,103	8.8	0	0.0	4,660	6.8	3,445	3.6	224	10.0	6,365	3.3
NE	61,830	10.5	0	0.0	13,903	20.3	24,652	26.1	1,160	51.5	3,931	2.0
WC	61,555	10.4	423	1.4	4,272	6.2	8,943	9.5	0	0.0	19,964	10.2
C	58,533	9.9	3,396	11.2	16,272	23.8	15,324	16.2	84	3.7	35,533	18.2
EC	58,331	9.9	2,550	8.4	12,264	17.9	17,357	18.4	58	2.6	41,818	21.5
SW	14,567	2.5	5,815	19.2	1,590	2.3	2,856	3.0	0	0.0	18,566	9.5
SC	13,202	2.2	7,821	25.9	1,426	2.1	5,401	5.7	0	0.0	9,280	4.8
SE	12,466	2.1	425	1.4	6,831	10.0	6,028	6.4	0	0.0	28,614	14.7
Nonresident	147,182	24.9	9,218	30.5	3,114	4.5	4,336	4.6	84	3.7	6,472	3.3
Total	590,685		30,232		68,451		94,398		2,251		194,835	

*County of residence is used to assign harvest location, which may not be location where game was harvested.

This shows the online questions asked for the 2023-24 hunting season. If pheasant and quail hunted then period questions also asked. For other species questions asked were the same for all species, see dove and grouse examples. County hunted most was asked for each species hunted. If folks did not know what county then region question was asked.

IAUplandHarvest

Hunter Check-in

1. Please enter the SURVID code from the letter you received. *

111111

Characters used: 6 out of 6.

You were randomly selected from among approximately 150,000 buyers of Iowa hunting licenses to receive this survey. This survey will provide estimates of harvest and the number of people who hunted Upland Game during the 2023-2024 hunting season. If you did not hunt any of these species in Iowa we still need to hear from you. **Please answer the first question even if you did not hunt upland game in Iowa during 2023-2024; it is important to know what proportion of hunters did not hunt upland game.** Use the Next button to advance to the next question: Back & Forward arrows at the bottom of pages are also available. Thank you for your contribution to this survey effort.

Next

0%

Upland species hunted

2. Which Upland Game species did you hunt in Iowa between September 1, 2023 and February 28, 2024? (Check all that apply) *

- ☐ Did not hunt any of these species in Iowa
- ☐ Wild Pheasant (Non game farm)
- ☐ Wild Bobwhite quail (Non game farm)
- ☐ Cottontail rabbit
- ☐ Squirrel
- ☐ Hungarian partridge
- ☐ Doves (Mourning & Eurasian Collared)
- ☐ Ruffed grouse

Back

Next

4%

Land type hunted

3. On what type of land did you hunt Upland Game in Iowa during 2023-2024? *

- ☐ Only Public land & public access walk-in areas
- ☐ Only Private land
- ☐ Both Public and Private Land

Back

Next

8%

Days hunted Upland Game in Iowa

4. How many DAYS did you hunt for Upland Game in Iowa between September 1, 2023 and February 28, 2024? *

Back

Next

12%

Pheasant Days and Harvest

5. How many total **DAYS** did you hunt WILD (non-game farm) **PHEASANTS** in Iowa between October 28, 2023 and January 10, 2024? *

Characters used: 0 out of 3.

6. What was your **TOTAL HARVEST** of WILD (non-game farm) **PHEASANTS** in Iowa between October 28, 2023 and January 10, 2024? *

Characters used: 0 out of 3.

Back

Next

16%

Pheasant county

- In which **COUNTY** did you hunt **PHEASANTS** most frequently during the 2023 - 2024 season?

Please select the county you hunted pheasants most often, if you do not know or recall the county scroll to the bottom of the list.

Don't Know the County

Back

Next

20%

Pheasant Region



If you cannot recall the specific county you hunted most frequently for pheasants, in which Region of Iowa did you hunt pheasants most often?

7. In which Region did you hunt pheasants most frequently?

- ☒ Northwest
- ☐ Northcentral
- ☐ Northeast
- ☐ Westcentral
- ☐ Central
- ☐ Eastcentral
- ☐ Southwest
- ☐ Southcentral
- ☐ Southeast

Back

Next

24%

Pheasant Days Cont.

8. Of the **3** total days you hunted **PHEASANTS**, How many **DAYS** did you hunt **wild pheasants** (*not game farm*) in Iowa **during EACH of the following time periods**?
Enter a value for each time period, if none enter the numeral zero.

October 28, 2023 - Nov. 5

Nov. 6 - Nov. 30

Dec. 1 - Jan. 10, 2024

Back

Next

28%

Pheasant Harvest Cont.

9. Of the **3** total pheasants you harvested, How many wild (*not game farm*) **pheasants** did you **HARVEST** in Iowa **during EACH of the following time periods?**
Enter a value for each time period, if none enter the numeral zero.

October 28, 2023 - Nov. 5

Nov. 6 - Nov. 30

Dec. 1 - Jan. 10, 2024

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Doves

10. How many **days** in Iowa did you hunt **Doves** in the 2023 - 2024 hunting season, **and** how many Doves did you **harvest**?
(Enter a value for both DAYS and HARVEST)

Total DAYS hunted for DOVES?

Total HARVEST of DOVES?

BackNext



Dove county

- In what **COUNTY** did you hunt **DOVES** most frequently during 2023 - 2024?

BOONE

BackNext



Ruffed Grouse

11. How many **days** in Iowa did you hunt Ruffed Grouse in the 2023-2024 hunting season, **and** how many Ruffed Grouse did you **harvest**?
(Enter a value for both DAYS and HARVEST)

Total DAYS hunted for Ruffed Grouse in Iowa?

Total HARVEST of Ruffed Grouse in Iowa?

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Ruffed Grouse cont.

- In what Iowa **COUNTY** did you hunt **RUFFED GROUSE** most frequently during 2023 - 2024?

ALLAMAKEE

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YOUTH PHEASANT

12. Did you hunt or take a youth pheasant hunting during the 2023 **Youth Pheasant Season?** *

☐ Yes

☐ No

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YOUTH PHEASANT CONT.

13. If YES, how many youths hunted with you and how many pheasants were harvested **during the Youth season?**
(Enter a value for both YOUTHS and HARVEST)

Number of Youths hunting?

Number of Wild pheasants harvested by youths?

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Submit



Thank You!

Thank you for taking this survey. Your response is important to us. You will now be redirected to the Iowa DNR home page.

To get in touch with the Iowa DNR regarding this survey contact: Peter.Fritzell@dnr.iowa.gov , for questions regarding upland birds contact Todd.Bogenschutz@dnr.iowa.gov and contact James.Coffey@dnr.iowa.gov for inquiries about squirrel and rabbits.

515-725-8200 (phone)
515-725-8202 (fax)

Para asistencia en español:
515-725-8263

TTY- use relay Iowa:
800-735-2943

