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JOB COMPLETION REPORT

SURVEYS AND INVESTIGATIONS PROJECTS

as required by

Federal Aid in Wildlife Restoration Act

Illinois

Federal Aid Project No. W-49-R(25)
Study II: Estimating Game and Fur Harvest
Job No. 1: Hunter Mail Survey, 1977-78

by

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October 1, 1978

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

REPORT

ON THE THEORY OF QUANTUM MECHANICS

BY

ROBERT OPPENHEIMER AND HENRY KRAMER
AND
ALBERT EINSTEIN

1927

PHYSICS DEPARTMENT

UNIVERSITY OF CHICAGO

October 1, 1927

JOB COMPLETION REPORT

SURVEYS AND INVESTIGATIONS PROJECTS

STATE OF ILLINOIS

PROJECT NO.: W-49-R(25)

STUDY II

JOB NO. I

OBJECTIVE: To determine the annual hunter harvest of small game in Illinois, relate this parameter to population trends and characteristics, habitat conditions, and other factors which may influence hunter harvest, and develop annual statewide hunting regulations.

PROCEDURES: Procedures used for the hunter harvest survey for the 1977-78 season were described by Hubert, G. F., Jr. (Job Completion Report, Proj. W-49-R(24), Job No. 1, Hunter mail survey, 1976-77, 32 pp., 1977). Resident hunting licenses for the 1977-78 season were printed in books of 50 licenses per book. Two mail survey address cards were attached inside the front cover of each book of licenses. Frequently, the vendor wrote the name and address of the first purchaser on both cards. Also, we noted father-son and husband-wife combinations as indicated by the similarity of surnames and addresses on many of the return cards.

The placing of the two survey address cards in the front of the license books reduced the size of the sample. The accuracy of estimates generated by such surveys is in proportion to the degree of randomness in the sample.

The questionnaire card for the 1977-78 hunter survey was similar to the one used for the 1976-77 survey (Fig. 1). Two

questions were changed on the 1977-78 survey card. Hunters were asked if they hunted deer with a bow and arrow during the 1977 season and if they had received training in hunting or firearms safety.

FINDINGS AND ANALYSIS:

1977-78 Hunting Seasons

The 1977-78 hunting seasons and bag limits for upland game (Table 1) were similar to previous years. Illinois waterfowl hunters benefited from a higher Canada goose quota and the state was zoned for duck hunting. The duck season in the southern zone began and closed two weeks later than in the northern zone. Raccoon season dates were adjusted in 1977 with later openings in both the north and south zones.

From a sample of 5,700 licensed resident hunters, 5,023 were mailed harvest survey cards. The Postal Service returned 194 questionnaires (3.86 percent) as undeliverable. A total of 2,862 useable replies were received, representing a response rate of 56.98 percent. This response rate was considerably lower than the previous year, 74.67 percent. A total of 12.96 percent of the hunters that purchased licenses did not hunt any of the 16 species listed on the questionnaire card during the 1977-78 season. The non-hunting segment represented 11.17 percent of the respondents in 1976.

The response to the question on bow hunting for deer in 1977, 13.21 percent of the respondents answered affirmatively. This response produced an estimated 56,142 bow hunters for deer. According to the Permit Office, 28,973 bow permits were issued or 1.94 times the projected estimate from this sample. The respondents answered this question incorrectly or hunted deer with a bow without obtaining a bow hunting permit.

Approximately 40 percent of the respondents indicated that they had received training in hunting or firearms safety. Most indicated such training was received while in the military services.

The response to the question concerning hunting with a varmint call produced an estimate of 28,815 such hunters. This projection was based on a positive response by 6.78 percent of the returns.

A summary of hunting effort and harvest for 1977-78 for the 16 game birds, mammals and waterfowl is presented in Table 2. Similar information for the 16 species or kinds of hunting is presented in Tables 3-18 for each of the 10 wildlife management units (Fig. 2) in Illinois.

The distribution of hunting effort and harvest were compiled for seven game species (Tables 18 and 19). Most license buyers hunted a few times and harvested and bagged few. Conversely, a small percentage of the hunters for each species of game animals harvested the highest percentage of that particular species. The returns indicated that 21 percent of the quail hunters harvested 66 percent of the reported kill.

Confidence intervals at the 95% level were calculated for statewide totals for number of hunters, average season bag and total harvest and presented in Table 21. The results of the hunter mail surveys for the past three years are presented in Table 22.

RECOMMENDATION:

It is recommended that the survey be continued to provide annual indices of hunting activities and success. A more random method of selecting hunters to include in the survey should be developed.

DATA AND REPORTS:

The data from which this report was compiled are on file in the Project Leader's office, 129 N. Kennedy, Vandalia, Illinois 62471.

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Table 1. Illinois' regulations for migratory and small game, 1977-78.

Species	Zone	Season duration	Limit	
			Daily	Possession
Cottontail	Statewide	Nov. 12 - Jan. 15	4	8
Squirrels	Northern Southern	Aug. 1 - Nov. Sept. 1 - Nov.	5	10
Bobwhite	Statewide	Nov. 12 - Jan. 15	8	16
Ring-necked Pheasant	Statewide	Nov. 12 - Jan. 15	2	4
Gray Partridge	Statewide	Nov. 12 - Jan. 15	2	4
Mourning Dove	Statewide	Sept. 1 - Nov. 9	12	24
Woodcock	Statewide	Oct. 15 - Dec. 19	5	10
Crow	Statewide	July 1 - Aug. 15 Dec. 1 - Feb. 15	NONE	NONE
Ducks	Northern Southern	Oct. 22 - Dec. 5 Nov. 5 - Dec. 19	POINT SYSTEM	
Geese	Statewide	Oct. 22 - Dec. 30	VARIED BY SPECIES	
Raccoon	Northern Southern	Nov. 15 - Jan. 19 Nov. 25 - Jan. 26	NONE	NONE
Fox	Northern Southern	Dec. 20 - Feb. 2 Nov. 17 - Jan. 13	NONE	NONE
Coyote	Statewide	Sept. 1 - Feb. 28	NONE	NONE

Table 2. Summary of statewide data from hunter harvest survey, 1977-78 season. (N=2,862)

Species	Estimated number of hunters	Percent of total licenses	Average daily bag	Average season bag	Estimated total harvest	Average days afield	Estimated total days afield
Rabbit	281,254	66.18	0.98	6.83	1,920,964	6.99	1,966,402
Fox squirrel	176,712	41.58	1.19	8.77	1,549,764	7.38	1,303,956
Gray squirrel	117,164	27.57	0.92	6.97	816,637	7.60	890,535
Bobwhite	136,023	32.00	1.22	7.98	1,087,115	6.52	887,565
Pheasant	179,385	42.21	0.38	2.54	455,637	6.63	1,189,771
Gray partridge	6,088	1.43	0.09	1.07	6,514	11.83	72,016
Dove	98,750	23.24	2.98	16.91	1,669,862	5.68	560,425
Woodcock	10,989	2.58	0.33	2.20	24,175	6.66	73,210
Crow	17,671	4.16	1.04	5.04	89,063	4.86	85,830
Ducks	75,734	17.82	0.99	9.17	694,480	9.27	702,098
Geese	43,658	10.27	0.36	2.37	103,470	6.61	288,529
Raccoon	46,182	10.87	0.82	7.72	356,530	9.39	433,606
Red fox (Gun)	26,284	6.18	0.13	1.10	28,912	8.30	218,142
Gray fox (Gun)	10,691	2.52	0.07	0.50	5,346	7.17	76,619
Coyote (Gun)	22,868	5.38	0.16	1.08	24,698	6.55	149,830
Canid chasers (Dog)	4,603	1.08	-	-	-	15.13	69,639

Table 3 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Cottontails (N = 1,899)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total days afield
Northwest Hills	21,179	7.53	0.69	4.96	105,041	152,489
Northeast Moraine	25,770	9.16	0.51	4.00	103,115	201,250
Mississippi Border-North	13,774	4.90	1.42	8.84	121,782	85,258
Mississippi Border-South	22,215	7.90	1.21	7.41	164,747	135,644
Western Prairie/Forest	22,288	10.06	1.00	6.41	181,488	181,155
Central Sand Prairie	13,033	4.63	1.09	7.89	102,819	94,271
Grand Prairie	86,642	30.80	0.83	5.92	513,502	619,266
Southern Plain	50,059	17.80	1.31	8.36	418,535	319,459
Wabash Border	9,182	3.26	1.20	9.37	86,077	71,221
Shawnee Hills	9,626	3.42	1.32	11.94	114,967	86,883
Unknown	1,481	0.05	0.39	6.00	8,889	19,504

Table 4 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Fox squirrel (N = 1,194)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total days afield
Northwest Hills	13,320	7.54	1.33	7.51	100,166	75,006
Northeast Moraine	8,288	4.69	0.89	5.20	43,119	48,525
Mississippi Border-North	11,248	6.36	1.36	9.93	111,872	81,960
Mississippi Border-South	19,980	11.31	1.42	12.36	247,304	174,423
Western Prairie/Forest	17,464	9.88	1.29	7.77	135,877	104,890
Central Sand Prairie	8,140	4.61	1.21	9.13	74,383	61,544
Grand Prairie	46,768	26.47	1.19	8.69	406,741	339,969
Southern Plain	35,076	19.85	1.08	8.37	293,980	273,100
Wabash Border	6,512	3.68	1.03	9.75	63,567	61,544
Shawnee Hills	8,711	4.93	0.89	7.44	65,048	73,231
Unknown	1,184	0.67	0.79	6.50	7,705	9,764

Table 5 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Gray squirrel (N = 793)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total days afield
Northwest Hills	9,013	7.69	0.71	3.70	33,429	47,337
Northeast Moraine	6,501	5.55	0.55	3.39	22,039	39,941
Mississippi Border-North	4,876	4.16	0.78	5.97	29,139	37,278
Mississippi Border-South	15,661	13.37	1.00	9.00	141,110	140,385
Western Prairie/Forest	7,978	6.81	0.55	3.19	25,441	46,154
Central Sand Prairie	5,319	4.54	0.90	7.44	39,641	43,787
Grand Prairie	20,389	17.40	0.61	4.69	95,701	156,657
Southern Plain	31,322	26.73	1.14	8.92	279,559	245,119
Wabash Border	5,171	4.41	0.92	9.77	50,587	54,882
Shawnee Hills	9,751	8.32	1.30	9.64	94,073	72,190
Unknown	1,182	1.01	0.87	5.00	5,916	6,805

Table 6 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Bobwhites (N = 917)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total day afield
Northwest Hills	6,972	5.12	0.58	5.96	41,595	71,165
Northeast Moraine	3,412	2.50	0.32	1.52	5,199	16,423
Mississippi Border-North	8,455	6.22	0.81	8.74	39,618	48,972
Mississippi Border-South	14,537	10.69	1.17	6.34	92,252	78,858
Western Prairie/Forest	14,685	10.80	1.35	7.14	105,027	77,527
Central Sand Prairie	5,637	4.14	1.90	17.24	97,302	51,339
Grand Prairie	37,232	27.37	0.74	4.55	169,500	230,509
Southern Plain	32,337	23.77	1.65	11.15	361,134	218,377
Wabash Border	4,895	3.60	1.58	14.06	68,929	43,646
Shawnee Hills	7,565	5.56	1.64	9.37	72,346	44,238
Unknown	297	0.22	0.18	4.00	1,188	6,510

Table 7 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Pheasants (N = 1,216)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total day afield
Northwest Hills	20,210	11.27	0.51	3.92	79,056	153,811
Northeast Moraine	34,667	19.32	0.42	2.98	103,199	245,206
Mississippi Border-North	2,655	1.48	0.23	1.89	5,005	21,697
Mississippi Border-South	9,146	5.10	0.40	1.92	17,519	43,840
Western Prairie/Forest	13,424	7.48	0.40	2.45	32,829	81,438
Central Sand Prairie	4,426	2.47	0.34	1.53	6,772	19,616
Grand Prairie	85,267	47.54	0.34	2.24	190,352	564,123
Southern Plain	6,786	3.78	0.33	2.00	13,544	41,165
Wabash Border	295	0.16	0.66	1.00	294	446
Shawnee Hills	148	0.08	0.13	4.00	589	4,458
Unknown	2,360	1.32	0.46	2.75	6,478	13,969

Table 8 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Gray Partridge (N=41)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total day afield
Northwest Hills	2,227	36.58	0.07	1.13	2,517	34,746
Northeast Moraine	1,039	17.07	0.18	1.57	1,628	9,058
Mississippi Border-North	-	-	-	-	-	-
Mississippi Border-South	-	-	-	-	-	-
Western Prairie/Forest	742	12.19	0.05	0.80	592	11,582
Central Sand Prairie	-	-	-	-	-	-
Grand Prairie	1,930	31.70	0.12	0.92	1,776	15,146
Southern Plain	148	2.43	0.00	0.00	0	1,485
Wabash Border	-	-	-	-	-	-
Shawnee Hills	-	-	-	-	-	-
Unknown	-	-	-	-	-	-

Table 9 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Dove (N=666)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total day afield
Northwest Hills	4,448	4.50	2.86	20.10	89,298	31,159
Northeast Moraine	9,193	9.31	2.06	12.95	118,916	57,571
Mississippi Border-North	4,893	4.95	2.73	13.27	64,863	23,740
Mississippi Border-South	6,969	7.05	2.73	11.60	80,709	29,527
Western Prairie/Forest	7,562	7.66	2.74	12.73	96,110	35,017
Central Sand Prairie	5,041	5.10	4.06	27.65	139,204	34,275
Grand Prairie	29,358	29.73	2.39	13.44	394,067	165,145
Southern Plain	23,427	23.72	3.67	21.00	491,362	133,837
Wabash Border	3,262	3.30	3.18	21.55	70,194	22,108
Shawnee Hills	4,300	4.35	4.28	27.07	116,250	27,153
Unknown	296	0.30	9.98	30.00	8,885	890

Table 11 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Crow (N=119)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total day afield
Northwest Hills	2229	12.61	1.18	5.20	11,578	9801
Northeast Moraine	3417	19.32	1.29	6.04	20,633	16,037
Mississippi Border-North	1189	6.72	1.83	10.75	12,766	6979
Mississippi Border-South	891	5.04	0.35	2.83	2,523	7128
Western Prairie/Forest	1486	8.40	0.46	2.40	3,562	7722
Central Sand Prairie	594	3.36	3.44	13.75	8,164	2376
Grand Prairie	5052	28.57	0.71	3.74	18,852	26,432
Southern Plain	1783	10.84	1.43	4.42	7,867	5494
Wabash Border	594	3.36	1.25	2.50	1,484	1188
Shawnee Hills	446	2.52	0.61	3.67	1,633	2673
Unknown	-	-	-	-	-	-

Table 12 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Wildlife management unit	Ducks		(N=51)			
	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total days afield
Northwest Hills	7558	9.98	0.80	8.18	61,787	77,599
Northeast Moraine	8744	11.54	0.85	6.54	57,194	67,361
Mississippi Border-North	6076	8.02	0.98	14.32	86,977	88,875
Mississippi Border-South	10,671	14.09	1.13	9.51	101,497	89,765
Western Prairie/Forest	4298	5.68	0.65	7.17	30,820	47,479
Central Sand Prairie	3260	4.30	1.35	17.86	58,231	43,176
Grand Prairie	20,008	26.42	0.87	5.94	118,834	136,651
Southern Plain	10,967	14.48	1.12	11.91	130,539	116,027
Wabash Border	445	0.59	0.87	2.33	1037	1187
Shawnee Hills	3409	4.50	1.34	12.91	44,007	32,790
Unknown	296	0.39	3.00	12.00	3556	1186

Table 13. Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Geese (N = 294)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total days afield
Northwest Hills	2821	6.46	0.09	1.11	3,117	35,788
Northeast Moraine	2376	5.44	0.17	0.88	2,078	12,028
Mississippi Border-North	1485	3.40	0.05	0.80	1,188	22,571
Mississippi Border-South	5346	12.24	0.26	2.03	10,837	40,836
Western Prairie/Forest	1485	3.40	0.04	0.20	297	8,316
Central Sand Prairie	891	2.04	0.37	1.50	1,336	3,564
Grand Prairie	6385	14.62	0.17	0.88	5,641	32,818
Southern Plain	11880	27.21	0.54	3.69	44,090	80,782
Wabash Border	-	-	-	-	-	-
Shawnee Hills	10989	25.17	0.68	3.20	35,183	51,825
Unknown	-	-	-	-	-	-

Table 14 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Raccoons (N = 311)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total day afield
Northwest Hills	5,494	11.90	0.97	9.86	54,222	55,686
Northeast Moraine	1,039	2.25	0.67	7.29	7,576	11,286
Mississippi Border-North	3,564	7.72	1.07	11.71	41,744	39,054
Mississippi Border-South	4,900	10.61	0.76	9.12	44,715	58,656
Western Prairie/Forest	6,831	14.79	1.20	7.70	52,588	43,806
Central Sand Prairie	1,039	2.25	0.55	6.14	6,388	11,583
Grand Prairie	12,919	27.97	0.71	6.24	80,665	113,302
Southern Plain	6,682	14.47	0.68	5.93	39,664	58,656
Wabash Border	1,633	3.54	0.66	9.00	14,707	22,126
Shawnee Hills	2,079	4.50	0.73	6.86	14,261	19,453
Unknown	-	-	-	-	-	-

Table 15 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Red Fox (N = 178)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total days afield
Northwest Hills	295	1.12	0.08	0.77	2,950	37,692
Northeast Moraine	3,839	14.61	0.09	0.71	738	8,162
Mississippi Border-North	1,034	3.93	0.08	0.56	1,328	16,472
Mississippi Border-South	2,363	8.99	0.23	1.50	3,983	16,917
Western Prairie/Forest	2,658	10.11	0.29	1.19	2,803	9,646
Central Sand Prairie	2,363	8.99	0.23	1.80	1,328	5,639
Grand Prairie	738	2.81	0.15	1.44	12,538	80,430
Southern Plain	8,712	33.14	0.07	0.80	2,360	31,757
Wabash Border	2,953	11.23	0.00	0.00	0	2,968
Shawnee Hills	295	1.12	0.07	0.57	590	8,162
Unknown	1,034	3.93	0.99	1.00	295	297

Table 16 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Gray fox (N = 72)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total day afield
Northwest Hills	1,485	13.89	0.02	0.30	446	20,616
Northeast Moraine	445	4.16	0.05	0.67	297	6,388
Mississippi Border-North	742	6.94	0.02	0.20	148	8,130
Mississippi Border-South	742	6.94	0.10	1.20	891	8,711
Western Prairie/Forest	445	4.16	0.08	0.33	148	1,742
Central Sand Prairie	445	4.16	0.07	1.00	445	6,388
Grand Prairie	2,821	26.39	0.02	0.42	1,188	55,751
Southern Plain	2,227	20.83	0.07	0.60	1,336	18,293
Wabash Border	445	4.16	0.02	0.67	297	11,615
Shawnee Hills	891	8.33	0.01	0.17	148	12,195
Unknown	-	-	-	-	-	-

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Northeast Moraine	3,839	14.61	0.09	0.71	738	8,162
Mississippi Border-North	1,034	3.93	0.08	0.56	1,328	16,472
Mississippi Border-South	2,363	8.99	0.23	1.50	3,983	16,917
Western Prairie/Forest	2,658	10.11	0.29	1.19	2,803	9,646
Central Sand Prairie	2,363	8.99	0.23	1.80	1,328	5,639
Grand Prairie	738	2.81	0.15	1.44	12,538	80,430
Southern Plain	8,712	33.14	0.07	0.80	2,360	31,757
Wabash Border	2,953	11.23	0.00	0.00	0	2,968
Shawnee Hills	295	1.12	0.07	0.57	590	8,162
Unknown	1,034	3.93	0.99	1.00	295	297

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Northeast Moraine	445	4.16	0.05	0.67	297	6,388
Mississippi Border-North	742	6.94	0.02	0.20	148	8,130
Mississippi Border-South	742	6.94	0.10	1.20	891	8,711
Western Prairie/Forest	445	4.16	0.08	0.33	148	1,742
Central Sand Prairie	445	4.16	0.07	1.00	445	6,388
Grand Prairie	2,821	26.39	0.02	0.42	1,188	55,751
Southern Plain	2,227	20.83	0.07	0.60	1,336	18,293
Wabash Border	445	4.16	0.02	0.67	297	11,615
Shawnee Hills	891	8.33	0.01	0.17	148	12,195
Unknown	-	-	-	-	-	-

Table 17 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Coyote (N = 154)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total days afield
Northwest Hills	2,673	11.69	0.04	0.28	744	17,522
Northeast Moraine	445	1.94	0.00	0.00	0	3,118
Mississippi Border-North	3,118	13.63	0.22	1.86	5,802	25,689
Mississippi Border-South	2,079	9.09	0.17	0.93	1,934	11,582
Western Prairie/Forest	3,118	13.63	0.23	1.19	3,720	15,889
Central Sand Prairie	297	1.30	0.00	0.00	0	2,227
Grand Prairie	4,603	20.13	0.17	1.19	5,505	31,778
Southern Plain	4,306	18.83	0.21	1.24	5,356	25,095
Wabash Border	1,039	4.54	0.11	1.00	1,041	9,058
Shawnee Hills	1,188	5.20	0.08	0.50	595	7,870
Unknown	-	-	-	-	-	-

Table 18 . Summary of hunting effort and success in wildlife management units in Illinois in 1977-78 for the species listed below. The sample is in parenthesis.

Canid Chasers (Fox and Coyote
(N = 31)

Wildlife management unit	Estimated number of hunters	Percent of hunting pressure	Average daily bag	Average season bag	Estimated total harvest	Estimated total day afield
Northwest Hills	-	-	-	-	-	-
Northeast Moraine	297	6.45	-	-	-	3,712
Mississippi Border-North	148	3.22	-	-	-	1,633
Mississippi Border-South	594	12.90	-	-	-	7,276
Western Prairie/Forest	742	16.12	-	-	-	13,364
Central Sand Prairie	-	-	-	-	-	-
Grand Prairie	1,039	22.57	-	-	-	24,054
Southern Plain	1,485	32.26	-	-	-	18,857
Wabash Border	-	-	-	-	-	-
Shawnee Hills	297	6.45	-	-	-	742
Unknown	-	-	-	-	-	-

Table 19. Distribution of harvest among hunters for seven game species in Illinois, 1977-78, from post-season resident mail survey.

Total season bag	Percent of hunters pursuing species						
	Rabbit	Fox Squirrel	Gray Squirrel	Bobwhite	Pheasant	Dove	Raccoon
0	18.97	10.40	13.20	25.77	35.50	10.81	10.36
1	10.92	8.79	12.56	10.90	19.38	6.39	19.42
2	14.54	12.51	13.72	12.66	16.12	7.46	11.97
3	7.08	7.78	8.72	8.37	7.43	5.33	9.71
4	6.87	6.09	7.44	4.74	5.68	5.63	5.18
5	5.75	6.85	6.92	4.18	2.26	3.80	4.21
6	4.90	5.83	5.77	4.96	3.42	5.02	5.18
7	2.24	3.38	3.08	1.76	1.00	1.83	1.94
8	3.68	4.06	3.20	3.08	1.09	4.41	2.59
9	0.80	1.61	1.02	1.10	1.09	0.46	1.62
10	5.75	7.86	5.64	4.07	1.75	8.68	4.85
11	0.32	1.10	0.77	0.22	0.51	0.30	0.65
12	2.93	3.30	1.79	1.54	1.25	4.41	0.97
13	0.26	0.42	0.77	0.11	0.17	0.61	1.29
14	0.90	1.18	0.90	0.44	0.67	0.91	0.97
15-19	3.68	5.24	3.97	2.97	1.17	5.02	5.50
20-24	4.31	5.41	4.49	3.96	1.00	7.61	5.18
25-29	2.08	2.11	1.41	1.65	0.08	4.57	3.24
30-34	1.12	2.11	1.92	1.65	0.25	3.04	1.94
35-39	0.64	1.18	0.64	0.88	0.08	0.76	0.97
40-44	0.37	1.01	0.38	1.43	0.08	3.04	0.65
45-49	0.21	0.25	0.90	0.22	0.00	0.61	0.32
N 50	1.65	1.52	0.77	3.30	0.00	9.28	1.29

Table 20. Distribution of hunting effort for seven game species in Illinois, 1977-78, from post-season resident hunter mail survey.

Number of hunts	Percentage of hunters pursuing species						
	Rabbit	Fox squirrel	Gray squirrel	Bobwhite	Pheasant	Dove	Raccoon
1	16.20	13.69	13.46	22.14	19.46	17.96	15.86
2	15.02	16.74	14.74	16.63	15.96	17.35	10.68
3	11.72	11.24	12.31	11.12	11.78	13.39	10.36
4	9.06	9.13	9.87	8.15	8.52	11.87	3.56
5	8.20	8.12	9.74	6.61	7.27	8.22	7.77
6	5.86	7.52	5.90	5.40	5.68	4.11	5.50
7	3.52	1.94	2.82	1.76	3.01	2.13	3.56
8	4.10	3.97	3.33	2.97	3.26	2.59	2.91
9	1.22	1.01	1.15	0.55	0.83	1.37	0.32
10	7.51	7.78	7.95	8.48	6.52	8.37	9.38
11	0.48	0.51	0.13	0.11	0.75	0.61	1.94
12	1.60	2.96	2.95	2.09	2.00	2.59	1.62
13	0.32	0.25	0.13	0.33	0.33	0.46	0.32
14	1.22	1.10	0.64	1.10	0.67	0.61	1.62
15-19	4.05	4.31	4.74	3.74	4.51	2.44	6.15
20-24	5.27	3.89	3.97	4.07	5.51	3.80	8.09
25-29	1.44	2.03	2.05	1.65	1.25	0.76	2.91
30-34	1.86	2.03	1.67	1.76	1.67	1.06	4.85
35-39	0.48	0.34	0.38	0.22	0.25	0.15	0.97
40-44	0.37	0.51	0.77	0.33	0.33	0.00	1.29
45-49	0.05	0.25	0.38	0.00	0.08	0.00	0.32
≥ 50	0.43	0.68	0.90	0.70	0.33	0.15	0.00

Table 21. Estimated number of resident hunters, average season bag, and total harvest by species in Illinois, 1977-78. (N=2,862)

Species	Estimated number of hunters	Estimated average season bag	Estimated total harvest
Rabbit	281,254 ± 7,517 ^a	6.83 ± 0.48 ^a	1,920,964 ± 144,372 ^a
Fox Squirrel	176,712 ± 7,831	8.77 ± 0.71	1,549,764 ± 143,267
Gray Squirrel	117,164 ± 7,099	6.97 ± 0.68	816,637 ± 93,997
Bobwhite	136,023 ± 7,412	7.98 ± 1.08	1,087,115 ± 158,534
Pheasant	179,385 ± 7,847	2.54 ± 0.24	455,637 ± 46,660
Gray Partridge	6,088 ± 1,888	1.07 ± 0.50	6,514 ± 3,643
Dove	98,750 ± 6,710	16.91 ± 2.00	1,669,862 ± 228,091
Woodcock	10,989 ± 2,521	2.20 ± 1.34	24,175 ± 15,074
Crow	17,671 ± 3,171	5.04 ± 1.58	89,063 ± 32,069
Ducks	75,734 ± 6,080	9.17 ± 1.43	694,480 ± 121,961
Geese	43,658 ± 4,824	2.37 ± 0.55	103,470 ± 21,498
Raccoon	46,182 ± 4,944	7.72 ± 1.17	356,530 ± 66,249
Red Fox (Gun)	26,284 ± 3,827	1.10 ± 0.32	28,912 ± 9,527
Gray Fox (Gun)	10,691 ± 2,488	0.50 ± 0.17	5,345 ± 2,174
Coyote (Gun)	22,868 ± 3,585	1.08 ± 0.34	24,698 ± 8,777
Canid Chasers	4,603 ± 1,645	-	-

^a 95% confidence interval.

Table 22. (continued)

Species and Seasons	Estimated total hunters	Average daily bag	Average season bag	Estimated total harvest	Average days afield	Estimated total days afield
Gray Fox (Gun)						
1976-77	8,870	0.13	0.94	8,338	7.00	62,090
1977-78	10,691	0.07	0.50	5,346	6.55	149,830
Coyote						
1976-77	16,791	0.19	1.59	26,698	8.45	141,884
1977-78	22,868	0.16	1.08	24,698	6.55	149,830
Canid Chaser						
1976-77	7,181				15.53	111,521
1977-78	4,603				15.13	69,639

**ILLINOIS DEPARTMENT OF CONSERVATION
SMALL GAME HUNTING SURVEY
1977-78 SEASON**

INSTRUCTIONS

1. Did you hunt deer in Illinois with BOW AND ARROW during the 1977 season? Yes No
2. Have you ever received any group training in hunting or firearms safety? Yes No
3. Did you hunt any furbearers in Illinois during the 1977-78 season with a VARMINT call? Yes No
4. Did you hunt any of the game listed below in Illinois during the 1977-78 season? Yes No

Please fill in the form on the left side of this card for the 1977-78 Illinois hunting season. If you did not hunt any of the game listed in Illinois, check the first four questions and return the card.

REPORT ONLY YOUR KILL. DO NOT report the kill of others with whom you may have hunted.

Do NOT report game killed or days hunted on shooting areas or preserves where a fee is charged for game taken.

Fill in the number of days on which you hunted each kind of game listed including your unsuccessful days.

If you hunted for more than one kind of game on a particular day, count it a day for EACH kind of game you hunted.

If you can't remember the exact figures, give your best estimate.

Fill in only the blanks that apply to you. Leave all other blanks unmarked.

PLEASE FILL IN ALL THREE BLANKS FOR EACH KIND OF GAME YOU HUNTED:

	Number killed during season	County where you hunted most for each kind of game	Number of days hunted
RABBITS	_____	_____	_____
FOX SQUIRRELS.	_____	_____	_____
GRAY SQUIRRELS	_____	_____	_____
QUAIL	_____	_____	_____
PHEASANT.....	_____	_____	_____
HUN. PARTRIDGE. ...	_____	_____	_____
DOVE.....	_____	_____	_____
WOODCOCK	_____	_____	_____
(NOT Groundhog or Woodchuck)			
CROW.....	_____	_____	_____
DUCKS.....	_____	_____	_____
GEESE	_____	_____	_____
RACCOON	_____	_____	_____
RED FOX	_____	_____	_____
GRAY FOX.....	_____	_____	_____
COYOTE.....	_____	_____	_____
FOX or COYOTE CHASING WITH DOGS FOR SPORT ONLY AND NOT TO KILL:	_____	_____	_____

Your comments are welcomed, but please send them in a separate letter to receive proper attention.

← **TEAR OFF AND MAIL ANSWERS -
NO POSTAGE REQUIRED**

**THANK YOU FOR YOUR COOPERATION!!!
NO POSTAGE REQUIRED**

Figure 1. Questionnaire form for post-season harvest survey of licensed Illinois resident hunters, 1977-78 season.

NORTHWEST HILLS
(3,629)

NORTHEAST MORaine
(3,194)

MISSISSIPPI BORDER-SOUTH
(3,030)

WESTERN PRAIRIE-FOREST
(5,568)

GRAND PRAIRIE
(20,320)

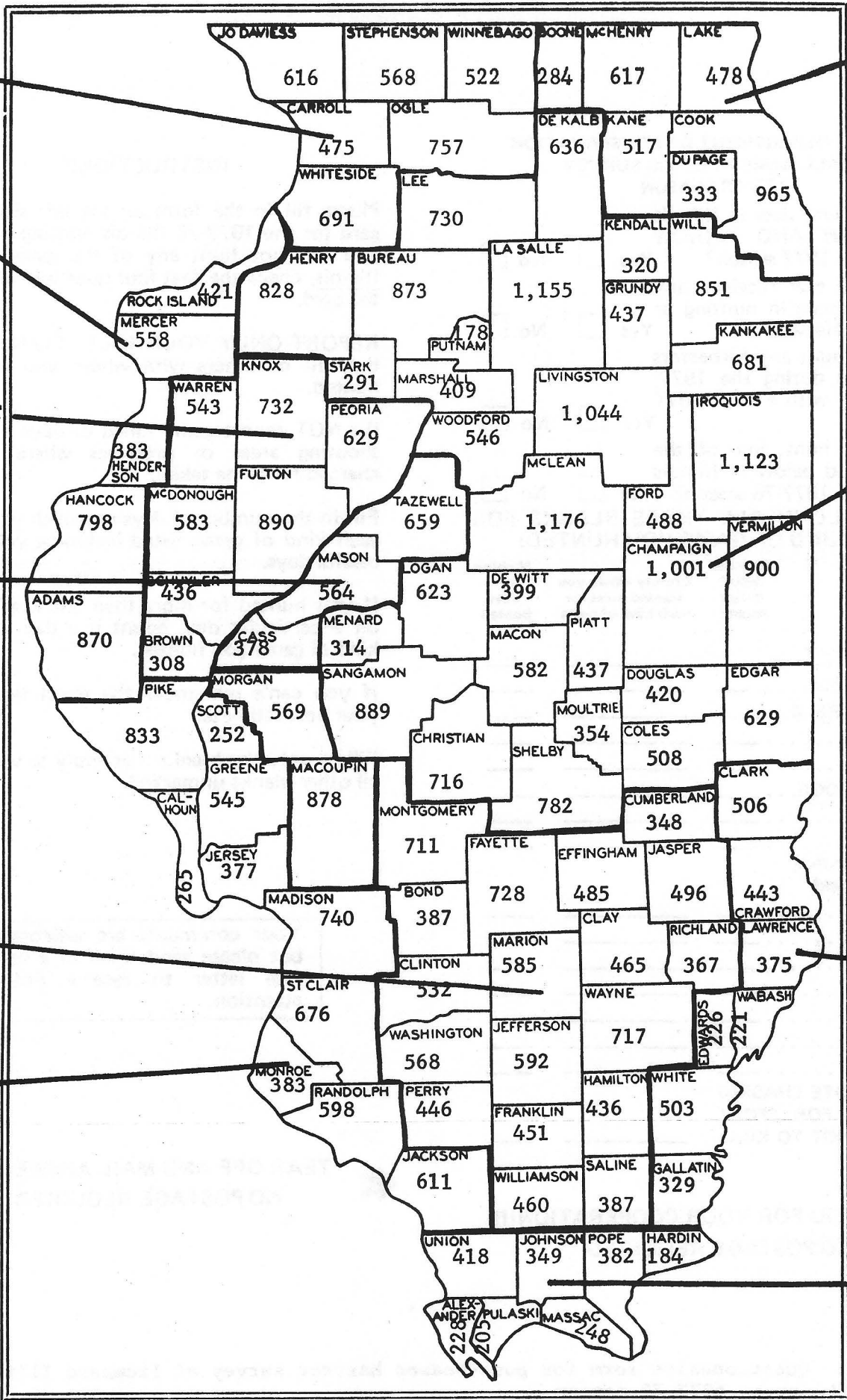
CENTRAL SAND PRAIRIE
(1,601)

SOUTHERN PLAIN
(9,161)

WABASH BORDER
(2,603)

MISSISSIPPI BORDER-SOUTH
(5,280)

SHAWNEE HILLS
(2,014)



14 (4870-10-8)

Figure 2. Wildlife management units and area (square miles) in Illinois.

