

PRODUCTION NOTE

University of Illinois at Urbana-Champaign Library Large-scale Digitization Project, 2007.

ADMINISTRATIVE REPORT

RESULTS OF THE 1993 ILLINOIS GRAY PARTRIDGE HUNTER SURVEY

As Required By

FEDERAL AID IN WILDLIFE RESTORATION ACT

ILLINOIS

Federal Aid Project Number: W-112-R-4

Prepared by:

William L. Anderson, Larry M. David



Brent Manning, Director

ILLINOIS DEPARTMENT OF CONSERVATION

21 June 1995

Mike Sweet P-R Coordinator Jeffrey M. Ver Steeg, Chief Division of Wildlife Resources

Illinois Department of Conservation Division of Wildlife Resources Administrative Report 21 June 1995

RESULTS OF THE 1993 ILLINOIS GRAY PARTRIDGE HUNTER SURVEY

William L. Anderson, Investigations and Surveys Program Larry M. David, Upland Wildlife Program

Abstract: Purchasers of the 1993 Illinois Habitat Stamp who hunted partridge the previous year were surveyed via mailquestionnaire to determine their gray partridge hunting activities, harvest, attitudes, and opinions, for the 1993 The mailing list consisted of 661 residents, 457 (69%) of whom returned usable questionnaires. Because 380 (83%) of them did not hunt gray partridge in Illinois in 1993, the effective sample was reduced to 77 active hunters. These hunters spent an average of 10.5 days afield; they expended 42% of the their days in November, 49% in December, and 9% in January. 95% of the hunters and 99% of their days afield were associated with private land. Virtually all (97%) of the hunters pursued gray partridge, at least part of the time, while hunting pheasants and other upland game species. The hunters harvested an average of 0.12 partridge per day afield and 1.26 partridge for the season; 64% of the harvest occurred in December. Crippling losses equaled 12.1 birds per 100 partridge harvested. Seven counties in northwestern Illinois accounted for 73% of the hunting effort and 60% of the gray partridge harvest. A majority of the hunters felt that the bag limit should remain at 2 birds per day. average, Illinois gray partridge hunters were 39 years of age, had hunted partridge for 16 years, traveled 55 miles (round trip) per day afield, and spent \$200 (total \$0.37 million) on their sport; 64% usually or always used a dog. The management implications of these findings are discussed. ______

The gray partridge (<u>Perdix perdix</u>) is a naturalized game bird that was imported from southeastern Europe during the late 1800s and early 1900s (Yeatter 1934). Also referred to as European partridge, Hungarian partridge, or simply "hun", the gray partridge was ultimately liberated in all except 4 states (Edminster 1954). The majority of the introductions occurred between 1905 and 1915, with the most spectacular success

occurring in Alberta, Canada in 1908 and 1909. Gray partridge thrive in areas of intense agriculture (Yeatter 1934).

In Illinois, more than 12,000 gray partridge were released by the state from 1906 to 1927 (Leopold 1931). From populations established in the extreme northeastern counties, gray partridge spread westward and southward and, by 1966, occupied approximately the northern one-fourth of the state (Farris 1970). The Illinois Hunter Harvest Survey indicated that ≥1 gray partridge were harvested in each of 20 northern counties in 1989-1993 (Anderson et al. 1995).

Compared to other game animals, the gray partridge is a minor species in the Prairie State. The few sportsmen who pursue gray partridge view it as a "bonus bird" that is taken coincidentally to the hunting of other upland game species, particularly pheasants (Farris 1970). An average of 1,862 Illinoisans spent 13,830 days afield and harvested 1,404 gray partridge annually from 1989 to 1993 (Anderson et al. 1995).

To properly manage the gray partridge resource and to establish bio-sociologically acceptable hunting regulations, the Illinois Department of Conservation (DOC) must be familiar with the activities and attitudes of gray partridge hunters in the state. Thus, the purpose of this study was to determine when and where gray partridge hunters are in the field, characteristics of their harvest, and their opinions of current and future hunting regulations. Surveys such as this one improve the DOC's understanding of rank-and-file hunters concerning the gray partridge resource and the sport of partridge hunting.

This survey is one in a series scheduled for upland game hunters in Illinois. A rabbit hunter survey was conducted for the 1989 season, a pheasant hunter survey was conducted for the 1990 season, pheasant and quail hunter surveys were conducted for the 1991 season, and a dove hunter survey was conducted for the 1992 season (Anderson and David 1991a, 1991b, 1992a, 1992b, 1994). In addition to gray partridge hunters, woodcock hunters were surveyed following the 1993 season (Anderson and David 1995), and rabbit hunters were surveyed again after the 1994 season.

METHODS AND MATERIALS

A 4-page, 20-question questionnaire was developed specifically for the 1993 Illinois Gray Partridge Hunter Survey (Fig. 1). This questionnaire and a letter of explanation (Fig. 2) were mailed to 661 potential gray partridge hunters on 6 January 1994. Non-respondents were sent 2nd and 3rd copies of the questionnaire, and accompanying letters (Figs. 3 and 4), on 4 February and 14 March, respectively. As of 28 June 1994, 457 usable questionnaires were returned for a response rate of 69%.

The mailing list for this survey was developed from information recorded on 1993 Illinois Habitat Stamp stubs. Each stub was designed to capture the purchaser's name, mailing address, and whether he/she had hunted selected game species (including partridge) during the previous year in Illinois (Fig. 5). Vendors were instructed to fill out the stubs and return them to the DOC Permit Office in Springfield. By sorting through

the first 58,000 stubs returned (total sales was 270,717), a total of 661 purchasers were identified as potential gray partridge hunters. These 661 people, all Illinois residents, were notified by letters postmarked 3 November 1993 that they would receive a questionnaire at the close of the gray partridge hunting season. The notice included a form for keeping records of hunting activity and partridge harvested (Fig. 6).

Data were transferred from the filled-out questionnaires to a computer file using a data management program (Ashton-Tate dBASE III+). The data were analyzed with a statistical program (SPSS Inc. SPSS/PC+V2.0). Results were tabulated for all respondents who reported hunting gray partridge in counties known to be within the range of the species in Illinois (Fig.7).

HUNTING REGULATIONS IN 1993

For purposes of setting the 1993 hunting seasons for wild gray partridge and other upland game species, the state was divided into north and south zones. The line that separated these zones was route US-36 from the Indiana state line west to Springfield, route IL-29 north to Pekin, and route IL-9 west to the Iowa state line.

The 1993 season for wild gray partridge extended from 6

November to 5 January in the North Zone, where all known

populations of the species exist (Fig. 7), and from 6 November to

9 January in the South Zone. The bag limit was 2 birds per day

and 6 in possession. Shooting time was from sunrise to sunset.

FINDINGS

The 457 individuals who filled out and returned the questionnaire purchased an average of 1.10 Illinois Habitat Stamps for the 1993 season. The vast majority (92.1%) purchased 1 stamp, while 6.3% purchased 2 stamps and 1.6% purchased 3-4 stamps.

Among the 457 respondents, 429 (94%) purchased an Illinois resident hunting license, 77 (17%) hunted wild gray partridge in Illinois, 32 (7.0%) hunted wild gray partridge in another state, and 49 (11%) hunted hand-reared released partridge, in 1993 (Table 1). Of those who hunted hand-reared partridge, 14% identified the species as grays, 80% said the species was chukars, and 6% did not know the species.

Hunter Activities

Of the 77 active wild gray partridge hunters in the sample, 90% were afield in November, 87% were afield in December, and 47% were afield in January (Table 2). Similarly, they expended 42% of their days afield in November, 49% of their days in December, and 9% of their days in January.

For the entire season, gray partridge hunters spent an average of 10.5 days afield in 1993 (Table 2). About one-third (35%) of the hunters were afield ≤ 5 days. In comparison, the annual Illinois Hunter Harvest Survey indicated that gray partridge hunters spent an average of 13.7 days afield, and that 33% of them were afield ≤ 5 days, during the 1993 season (Anderson et al. 1994).

The hunters reported hunting gray partridge in 23 separate counties in the state (Fig. 7). Seven counties, all located to the north and/or west of Putnam County, each accounted for >5% of the days afield and collectively were responsible for 73% of the total hunting effort.

The vast majority of gray partridge hunters (95%) and their days afield (99%) occurred on private land (Table 3). Only 5% hunted on public land, where they expended 1% of their days afield.

Almost two-thirds (64%) of the gray partridge hunters usually or always used a dog to hunt partridge (Table 4). In comparison, 62% of Illinois' woodcock hunters usually or always used a dog (Anderson and David 1995).

Not surprisingly, virtually all (97%) of the gray partridge hunters pursued partridge, at least part of the time, while also hunting other game species in Illinois (Table 5). The other game species most frequently associated with gray partridge hunting were pheasant (91% of hunters), quail (65%), and rabbits (44%).

When asked to identify the major problems they encountered, three-fourths (75%) of the gray partridge hunters focused on "not finding birds" (Table 6). Other problems often listed included "decline of partridge habitat" (29%), "coveys flushed too far away" (27%), "landowner's unwillingness to give permission to hunt" (27%), and "not enough public hunting areas" (22%).

Gray Partridge Harvest

Gray partridge hunters reported harvesting an average of

0.12 partridge per day afield and 1.26 partridge during the 1993 season (Table 7). Harvest rates were appreciably greater during December (0.16 bird per day afield and 0.81 bird per hunter) than in November (0.09 and 0.38) or January (0.08 and 0.08). According to the data in Table 7, 30% of the gray partridge harvest occurred in November, 64% in December, and 6% in January. The 7 counties that are dark shaded in Figure 7 accounted for 60% of the total gray partridge harvest. Hunters reported harvesting ≥1 partridge in each of 4 counties (Kankakee, Marshall, McDonough, and Peoria) located to the south of the range occupied by gray partridge in 1966 (Farris 1970).

For the entire 1993 season, 69% of the hunters took 0 partridge, 23% took 1-5 partridge, and 7% took 6-10 partridge, and 1% took 11-18 partridge. In comparison, the annual Illinois Hunter Harvest Survey indicated that gray partridge hunters averaged 1.25 birds each in 1993; 58% of the hunters took 0 partridge and 42% took 1-5 partridge (Anderson et al. 1994).

The hunters harvested 0 gray partridge on 92% of their days afield during the 1993 season (Table 8). They harvested the daily bag limit of 2 birds on 5% of their days afield. It appears that the average gray partridge hunter seldom obtains his daily limit of birds in Illinois.

The 77 hunters in the sample reported harvesting a total of 97 gray partridge and losing another 8 birds as cripples during the 1993 season. Based on this small sample, the crippling rate was 12.1 birds lost per 100 retrieved.

Attitudes and Opinions

Leasing Places to Hunt. When asked whether they would be willing to pay a landowner in Illinois for the privilege of hunting gray partridge, 36% of the active hunters answered "yes" (Table 9). The daily fee these hunters would be willing to pay averaged \$14.75. Partridge hunters exhibited more interest than rabbit, quail, dove, and woodcock hunters, and less interest than pheasant hunters, in paying for the right to hunt (Anderson and David 1991a, 1992a, 1992b, 1994, 1995).

Daily Bag Limit. When asked how they felt about the number of gray partridge that should be allowed in the daily bag limit, a majority (56%) of the active hunters preferred the current limit of 2 birds (Table 10). An additional 32% of active hunters opted to increase the limit to 3 or 4 birds per day. Interestingly, the active hunters were less inclined than all respondents (primarily inactive partridge hunters) in voting to increase the daily bag limit.

Characteristics of Gray Partridge Hunters

The gray partridge hunters who participated in the survey were, on the average, 39 years of age (Table 11). They had hunted gray partridge for an average of 16 years, and they traveled an average of 55 miles (round trip) per day afield in 1993. More than one-half (60%) of the hunters were active in only 1 county; 31% were active in 2 counties; and 9% were active in \geq 3 counties (n=77). Similarly, the majority (70%) of hunters were active in their county of residence, and 40% of them hunted

only in their county of residence (n=77). Gray partridge hunters appear to be about as mobile as pheasant hunters, somewhat more mobile than quail and woodcock hunters, and much more mobile than rabbit and dove hunters, in Illinois (Anderson and David 1991a, 1992a, 1992b, 1994, 1995).

Economics of Gray Partridge Hunting

Active gray partridge hunters reported spending an average of \$200 on their sport during the 1993 season in Illinois (Table 12). About one-half (51%) of the hunters spent <\$100 and 9% spent >\$500. When the average (\$200) was applied to the total number of gray partridge hunters in the state, expenditures for partridge hunting totaled \$0.37 million annually (Table 12). In comparison, rabbit hunters spent \$25.4 million (average \$156) in 1989, pheasant hunters spent \$30.8 million (average \$294) in 1990, quail hunters spent \$24.8 million (average \$289) in 1991, dove hunters spent \$10.2 million (average \$138) in 1992, and woodcock hunters spent \$1.4 million (average \$228) in 1993 (Anderson and David 1991a, 1991b, 1992b, 1994, 1995).

DISCUSSION

Because 1993 marked the inauguration of the Illinois Habitat Stamp, it was necessary to use stubs from the first 58,000 stamps (21% of total) sold to develop the mailing list for the 1993 Illinois Gray Partridge Hunter Survey. Consequently, the mailing list favored those people who purchased the Habitat Stamp early in the year and excluded the late purchasers. Because of this

sampling approach, biases may exist in the findings of this survey.

As pointed out by Farris (1970), Illinois gray partridge hunting is primarily a "byproduct" of other types of upland game hunting. Most of the hunters exhibit inconsistent activity from year to year, and when they do attempt to take partridge, it is coincidental to pursuing other game, especially pheasants. Of the 457 participants in the survey, all of whom had apparently hunted (gray and/or chukar) partridge the previous year, only 77 (17%) pursued gray partridge in 1993. Woodcock hunters also have a low (28%) incidence of hunting activity in back-to back years (Anderson and David 1995). For other upland game hunters, the percentage who pursues the same species in consecutive years is 65-68% (Anderson and David 1991a, 1991b, 1992b, 1994).

The present survey also disclosed that virtually all (97%) of the gray partridge hunters pursue partridge, at least part of the time, while hunting pheasants and other upland game (Table 5). As with woodcock, the gray partridge is primarily a "bonus bird" that is taken coincidentally while hunting other game species.

Daily harvest rates for gray partridge in Illinois have apparently declined over the past 25 years. Preno (1973) reported an average harvest of 0.47 bird per day afield in 1961-1972, which was 4 times as high as the 0.12-bird-per-day rate indicated in the present study (Table 7). The Illinois Hunter Harvest Survey indicated a harvest rate of 0.09 bird per day afield for the 1993 season (Anderson et al. 1994).

However, gray partridge hunters apparently hunted more often in 1993 (10.5 days per hunter) than in 1961-1972 (4.0 days per hunter) (Table 2 and Preno 1973). In spite of this increase in effort, hunters took fewer birds per season in 1993 (1.26 per hunter) than in 1961-1972 (1.5 birds per hunter) (Table 7 and Preno 1973).

In 1993, Illinois gray partridge hunters were afield more days than Wisconsin gray partridge hunters (5.2 days per hunter) (Dhuey 1994). Although Wisconsin hunters harvested more gray partridge per day afield (0.23 bird per hunter) than Illinois hunters, the season harvest per hunter was about the same in the two states (1.21 and 1.26 birds, respectively). In Wisconsin, there was an estimated 7,158 gray partridge hunters (3% of small game hunters) who harvested 8,641 gray partridge in 1993. In comparison, Illinois had 1,157 gray partridge hunters (0.07% of upland game hunters) who harvested 1,446 gray partridge in that year (Anderson et al. 1994).

In Minnesota, an average of 21,000 hunters harvested 67,000 gray partridge annually in 1982-1989 (Haroldson and Kimmel 1992). In this northern state, where the gray partridge is a more important game bird than in Illinois, hunters were asked questions similar to those in the questionnaire used for the present study. The most common problem encountered by Minnesotans was that "coveys flushed too far away", which was reported by 53% of the hunters (Haroldson and Kimmel 1992). In Illinois, only 27% of the hunters reported problems with coveys flushing too far away (Table 6). The most common problem in

Illinois, reported by 75% of the hunters, was "not finding birds". Only 30% of the Minnesota hunters reported experiencing this problem.

In a survey conducted in Wisconsin in 1981, 47% of gray partridge hunters felt that increased agricultural cultivation had adversely affected gray partridge habitat (Duffey and Stiehl 1983). In Illinois, 29% of gray partridge hunters considered habitat decline a major problem (Table 6). Although gray partridge was considered to be "very worthwhile" as a game bird by 31% of Wisconsin hunters, 77% of them preferred to hunt pheasants (Duffey and Stiehl 1983).

It appears that December is the most important and most successful month for gray partridge hunting in Illinois. About one-half (49%) of the hunting effort and 64% of the harvest occurred during this month (Tables 2 and 7). Although low in all months, hunting success was much greater in December than in either November or January. These findings are in contrast to pheasant hunting, for which the harvest rate and the percentage of harvest are greater in November than during the other months (Anderson and David 1992a). Apparently, greater likelihood of snow cover and/or other factors render gray partridge more vulnerable during the 12th month.

Illinois' gray partridge hunters appear to be reasonably well satisfied with the current bag limit of 2 birds per day.

More than one-half (56%) of the hunters preferred the status quo, whereas 11% wanted to decrease the daily bag limit and 32% opted for an increase (Table 10). At this point in time, we see no

compelling reason to either increase or decrease the daily bag limit for gray partridge in Illinois.

A gray partridge management and research plan for North America was developed in 1980 (Dumke et al. 1980). In addition to habitat management needs, the plan identified that gray partridge populations were under utilized by hunters, especially in the northern Great Plains of the United States and Canada. Illinois did not participate in that planning effort, and the plan does not refer to Illinois gray partridge releases, populations, or harvest. The North American plan lists 6 management alternatives, which are characterized by increasing levels of intensity depending on the gray partridge habitat and population resources available. For Illinois, we believe the lowest level of management intensity is most appropriate. this level, gray partridge habitat must be maintained, but no special effort would be made to feature the species' aesthetic or sporting values. The gray partridge should remain a "bonus bird" for upland game hunters in the northern and northwestern portions of the state.

Acknowledgements. Appreciation is extended to S.L. Etter and G.F. Hubert, Jr. for assistance in developing the questionnaire used for this survey; to J.C. Cole, S.L. Etter, and G.F. Hubert, Jr. for critically reading a preliminary draft of this report; and to L.K. Campbell, K.K. Benner, and A.E. Zielske for data and word processing. This study was funded in part by Federal Aid in Wildlife Restoration Project W-112-R, the DOC, Illinois Natural History Survey, and U.S. Fish and Wildlife Service, cooperating.

LITERATURE CITED

Ande	rson, W.L., L.K. Campbell, and K. Benner. 1994. Illinois Hunter harvest survey, 1993-94. Ill. Dep. Conserv., P-R Project W-112-R-4, Study 101, Job 1, Job Completion Rep. 71pp+appendix.
	and wildlife harvest in Illinois: county averages for 1989-93. Ill. Dep. Conserv., Div. Wildl. Res., Admin. Rep. (21 April 1995) 40pp.
	, and L.M. David. 1991a. Results of the 1989 Illinois rabbit hunter survey. Ill. Dep. Conserv., Div. Wildl. Res., Admin. Rep. (3 May 1991). 35pp.
	, and 1991b. Results of the 1990 Illinois pheasant hunter survey. Ill. Dep. Conserv., Div. Wildl. Res., Admin. Rep. (17 October 1991). 36pp.
	, and 1992a. Results of the 1991-92 Illinois pheasant hunter survey. Ill. Dep. Conserv., Div. Wildl. Res., Admin. Rep. (15 December 1992) 37pp.
	, and 1992b. Results of the 1991-92 Illinois quail hunter survey. Ill. Dep. Conserv., Div. Wildl., Res., Admin. Rep. (16 December 1992). 41pp.
	, and 1994. Results of the 1992 Illinois mourning dove hunter survey. Ill. Dep. Conserv., Div. Wildl. Res., Admin. Rep. (8 March 1994). 46pp+appendix.

- woodcock hunter survey. Ill. Dep. Conserv., Div. Wildl, Res., Admin. Rep. (20 June 1995) 34pp.
- Dhuey, B. 1994. Small game harvest, 1993-94. Pages 2-4 <u>in</u> B. Dhuey, compiler. Wisconsin wildlife surveys, August 1994. Wisc. Dep. Nat. Resour., Monona, Rep. 118. 110pp.
- Duffey, R.T., and R.B. Stiehl. 1983. Attitudes toward gray partridge and their management in east central Wisconsin. Wisc. Dep. Nat. Resour., Madison, Rep. 118. 40pp.
- Dumke, R.T., R.B. Dahlgren, S.R. Petereson, S.W. Schulz, J.P. Weigand, and W. Wishart. 1980. A gray partridge management/research plan for North America. Perdix II, Moscow, Idaho. 28pp.
- Edminster, F.C., 1954. American game birds of field and forest. Charles, Scribner's Sons, New York City, New York. 490pp.
- Farris, A.L. 1970. Distribution and abundance of the gray partridge in Illinois. Trans. Ill. State Acad. Sci. 63:240-245.
- Haroldson, K.J., and R.O. Kimmel. 1992. Hunting and hunters of gray partridge (<u>Perdix perdix</u>) in Minnesota, U.S.A. Pages 859-870 in M. Birkan, ed. Proc. Perdix VI, First International Symposium on Partridges, Quails, and Francolins. Gibier Fauna Sauvage Vol. 9.
- Leopold, A. 1931. Report on a game survey of the north central states. Sporting Arms and Ammunition Manufacturers' Institute, Madison, WI. 299pp.
- Preno, W.L. 1973. Harvest of Hungarian partridge (1961-72), raccoons (1963-72), red and gray foxes (1967-72), woodcock (1969-72) in Illinois. Ill. Dep. Conserv., Unpublished manuscript. 31pp.
- Yeatter, R.E. 1934. The Hungarian partridge in the Great Lakes region. Univ. of Mich., School of Forestry and Conservation, Bull. No. 5. 92pp.

Table 1. Percentage of respondents to the 1993 Illinois Gray Partridge Hunter Survey who purchased a resident license, hunted wild gray partridge in Illinois, hunted wild gray partridge in another state, and hunted hand-reared released partridge, in 1993-94 (n = 457 state residents).

Activity	Number	Percentage
Purchased resident Illinois hunting license	429	93.9
Hunted wild gray partridge in Illinois	77	16.8
Hunted wild gray partridge in another state	32ª	7.04
Hunted hand-reared released partridge	49 ^b	10.7 ^b

^{*}Includes 14 respondents who hunted wild gray partridge in Illinois and also in another state.

bOf these hunters, 7 (14.3%) hunted gray partridge, 39 (79.6%) hunted chuckar partridge, and 3 (6.1%) hunted partridge of unknown species.

Table 2. Temporal distribution of wild gray partridge hunters and their days afield in Illinois in 1993-94. Sample sizes are in parentheses. The season extended from 6 November 1993 to 5 January 1994.

	Percentage of	Days	Days Afield	
Month	Hunters	Per Hunter	Percentage	
	(77)	(77)	(805)	
November	89.6	4.4	42.0	
December	87.0	5.1	48.6	
January	46.7	1.0	9.4	
Entire season	100	10.5	100	

^{*20.8%} hunted 1-3 days, 14.3% hunted 4-5 days, 25.9% hunted 6-10 days, 23.4% hunted 11-15 days, and 15.6% hunted 16-48 days.

Table 3. Types of land utilized by wild gray partridge hunters in Illinois in 1993-94 (n = 77).

Subject		Percentage
Type of l Private	and - hunters	94.8
	- days afield	98.9
Public	- hunters	5.2
	- days afield	1.1

Table 4. Frequency that wild gray partridge hunters used a dog to hunt partridge in Illinois in 1993-94 (n = 75).

Frequency Dog was used	Percentage of Hunters
Always	54.7
Usually	9.3
Occasionally	10.7
Never	25.3

Table 5. Frequency that hunters pursued wild gray partridge while also hunting for other game species in Illinois in 1993-94. Sample sizes are in parentheses.

Subject	Percentage of Hunters
	(77)
Hunted wild gray partridge while also hunting other species	97.4
Other Species	(77)
Pheasant	90.9
Quail	64.9
Rabbit	44.2
Others	10.4

Table 6. Problems that wild gray partridge hunters encountered in Illinois in 1993-94 (n = 77).

Problem	Percentage of Hunters
No problems	13.0
Coveys flushed too far away	27.3
Birds fly too fast to shoot	0.0
Not finding birds	75.3
Trespass laws	5.2
Landowner's unwillingness to give permission to hunt	27.3
Not enough public hunting areas	22.1
Prefer hunting partridge in snow, but little fell	5.2
Decline of partridge habitat	28.6
Others	5.2

Table 7. Temporal distribution of wild gray partridge harvest in Illinois in 1993-94. Sample sizes are in parentheses. The season extended from 5 November 1993 to 5 January 1994.

	Gray Partridge Harvest			
Month	Per Day Afield	Per Hunter	Percentage	
	-	(77)	(97)	
November	0.09	0.38	29.9	
December	0.16	0.81	63.9	
January	0.08	0.08	6.2	
Entire season	0.12	1.26ª	100	

^{*68.8%} harvested 0 partridge, 23.4% harvested 1-5 partridge, 6.5% harvested 6-10 partridge, and 1.3% harvested 11-18 partridge.

Table 8. Number and percentage of days that wild gray partridge hunters harvested 0, 1, or 2 partridge in Illinois in 1993-94 (n = 805).

Number of	Days		
Gray Partridge	Mean	Percentage	
0	9.6	91.9	
1	0.4	3.6	
2	0.5	4.5	

Table 9. Attitudes of wild gray partridge hunters toward paying a landowner for the rights to hunt partridge (Illinois 1993-94). Sample sizes are in parentheses.

Subject	Active Hunters	All Respondents
Willing to pay landowner	(76)	(435)
Yes	35.5%	34.7%
No	47.4	44.2
No opinion	17.1	21.1
Amount willing to pay per day	(27)	(150)
<\$16	59.3%	51.4%
\$16 - \$30	37.0	43.3
\$31 - \$50	3.7	4.0
>\$50	0.0	1.3
Mean	\$14.75	\$16.99

Table 10. Attitudes of wild gray partridge hunters toward the daily bag limit for partridge hunting (Illinois 1993-94). Sample sizes are parentheses.

	Active	All
Question	Hunters	Respondents

Responses to the following question:

*In your opinion, how many wild gray partridge should be allowed in the daily bag limit in Illinois next season (1994-95)?

	(71)	(370)
1 per day	11.3%	8.4%
2 11 11	56.3	46.0
3 " "	7.0	22.4
4 " "	25.4	23.2

Table 11. Some characteristics of wild gray partridge hunters in Illinois in 1993-94. Sample sizes are in parentheses.

Characteristics	Active Hunters	All Respondents
Age in years	(76)	(436)
Age in years	(,0)	(430)
Mean	38.6	41.3
Distribution: ≤15	1.3%	2.3%
16-20	2.6	5.7
21-30	18.5	14.9
31-40	36.8	26.0
41-50	23.7	23.8
51-60	14.5	16.3
61-64	2.6	4.8
<u>≥</u> 65	0.0	6.2
Years hunted partridge	(76)	(202)
Mean	15.6	13.5
Distribution: 1-5	25.0%	37.6%
6-10	19.7	18.8
11-20	29.0	21.8
≥21	26.3	21.8
Miles driven per day	(74)	()
Mean	55.4	
Distribution: 1-5	8.1%	
6-10	10.8	
11-20	20.3	
21-30	12.2	
31-50	21.6	
51-100	13.5	
≥101	13.5	

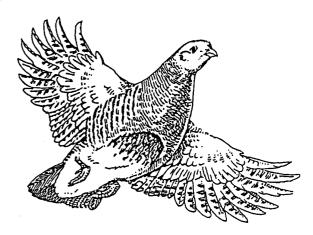
^{*}Round trip.

Table 12. Estimated annual expenditures by wild gray partridge hunters in Illinois (n = 77).

Money Spent	Percentage of Hunters
<\$100	50.6
\$100 - \$250	27.3
\$251 - \$500	13.0
\$501 - \$1,000	7.8
\$1,001 - \$2,000	1.3
>\$2,000	0.0
Mean	\$200
Total* (in millions)	\$0.37

^{*}Based on an average of 1,862 partridge hunters in Illinois in 1989-1993 (Anderson et al. 1995).

1993-94 ILLINOIS GRAY PARTRIDGE HUNTER SURVEY (Hungarian Partridge)



INSTRUCTIONS

Please answer the questions on the following pages for your gray partridge hunting activities in Illinois during the 1993-94 season. Gray partridge are also known as Hungarian partridge or "huns". Gray partridge occur in northern Illinois. Please provide answers only for hunting of wild free-ranging gray partridge (Hungarian partridge or "huns"), not hunting of hand-reared released gray partridge or other partridge such as chucker partridge (except questions 5 and 6 which apply to hand-reared released partridge).

If you did not hunt <u>wild</u> gray partridge <u>in Illinois</u> in 1993-94, answer only the questions that apply to you (PART I and PART III). Your opinions are important even if you did not hunt.

Report only your kill. DO NOT report the kill of others with whom you may have hunted. Your responses are <u>strictly confidential</u> and will never be associated with your name. Since you are a part of a small, randomly selected group, your participation is very important.

If you can't remember exact figures, give your best estimate. When completed, insert the questionnaire into the self-addressed envelope and mail it. Comments are welcome but please write them on a separate sheet of paper to receive proper attention.

PART I. General Information

1.	Did you	purchase	a resid	dent Il	lino	ois	hunting	license	for	the
	1993-94	season?	(circle	number	of	app	propriate	answer)	1	

Yes.....1 No.....2

- 2. How many 1993 Illinois Habitat Stamps did you purchase for your personal use?
 Number of Habitat Stamps....
- 3. Did you hunt wild gray partridge (Hungarian partridge or "huns") in Illinois during the 1993-94 season? (circle number of appropriate answer)

Yes.....2

Figure 1. The questionnaire used for conducting the 1993 Illinois Gray Partridge Hunter Survey (continued).

4. Did you hunt <u>wild</u> gray partridge (Hungarian partridge or "huns" in <u>another state</u> during the 1993-94 season? (circle number of appropriate answer)
Yes1 No2
5. Did you hunt hand-reared_released partridge of any species at a licensed hunting preserve in Illinois during the 1993-94 season?
Yes1 No2
6. If you answered "yes" to Question #5, as best as you can recall, were the hand-reared released partridge you hunted at a hunting preserve during 1993-94 primarily gray partridge(Hungarian) or chuckar partridge?
Gray (Hungarian)1 Chuckar2 Don't Know3
IF YOU DID NOT HUNT PARTRIDGE IN ILLINOIS DURING THE 1993-94 SEASON, SKIP TO PART III - QUESTION #17.
PART II. Partridge Hunting Activity.
7. If you answered "yes" to Question #3 (you hunted wild gray partridge in Illinois in 1993-94), please answer the following questions about the number of different days you hunted wild gray partridge in Illinois and the number of wild gray partridge you harvested for each month of the 1993-94 season? (write in the number of days and number of partridge that apply)
Number of days in Nov. 1993 Number harvested
Number of days in Dec. 1993 Number harvested
Number of days in Jan. 1994 Number harvested
8. On how many different days during the 1993-94 season did you bag (kill and retrieve): a. no wild gray partridge (zero)? days
b. 1 wild gray partridge? days
c. 2 wild gray partridge? days
9. In which county, or counties, did you hunt wild gray partridge most in Illinois in 1993-94?
Number County of Days
Hunted most
Second most
Third most

Figure 1. Continued - page 2.

10.	How many <u>wild</u> gray partridge retrieve while hunting in Ill	did you cripple but did not linois in 1993-94?
	Number of cripples	lost
11.	Did you hunt wild gray partrials also hunting for other species	dge in Illinois in 1993-94 while es?
	Yes2	
	12a. If "yes", please l	ist the other species.
12.	partridge hunting in Illinois last season you hunted)? Inc gasoline, lodging, food and of guns, ammo, clothing, boots,	chink you spent for wild gray during the 1993-94 season (or the clude license fees, travel and lrink, dogs and their maintenance, and other equipment purchased for cole number of appropriate answer)
	Less than \$1001	\$501 to \$10004
	\$100 to \$2502	\$1001 to \$20005
	\$251 to \$5003	More than \$20006
13.		you encountered while hunting wild rcle the letter of all that apply.)
	ano problems	
	bcoveys flush too fa	r away
	cbirds fly too fast	to shoot
	dnot finding birds	·
	etrespass laws	
	flandowner's unwilli	ngness to give permission to hunt
	gnot enough public h	unting areas
	hprefer hunting part	ridge in snow, but little fell
	idecline of partridg	e habitat
	jother (please speci	fy)

14.	How often did you use a dog when hunting wild gray partridge in Illinois in 1993-94?
	Always1 Usually2 Occasionally3 Never4
15.	On what type(s) of lands did you hunt wild gray partridge in Illinois in 1993-94 and on how many days did you hunt on each type of land? (circle number of all that apply and write in the number of days)
	Privately owned lands?1 Number of days
	Publicly owned lands?2 Number of days (State and Federal)
16.	How many miles did you travel (round trip) on a typical wild gray partridge hunting trip in Illinois in 1993-94?
	Number of miles
	r III. Opinion Questions. Please answer even if you did not hunt 1993-94.
17.	Would you be willing to pay a landowner in Illinois for the privilege of hunting <u>wild</u> gray partridge? (circle number of appropriate answer)
	Yes1 No2 Undecided3
	If you answered "yes" to question 17, about how much would you be willing to pay per day? (circle number of appropriate answer)
	Under \$161 \$16-302 \$31-503 Over \$504
18.	In your opinion, how many <u>wild</u> gray partridge should be allowed in the daily bag limit in Illinois next season (1994-95)? (circle the appropriate number)
	1 per day 2 per day
	3 per day 4 per day
19.	How many years have you hunted wild gray partridge?
	Number of years
20.	How old were you on your last birthday?
	Years of age
	Thank you for your cooperation. POSTAGE IS PREPAID

Figure 1. Continued - page 4.

Dear Fellow Sportsman:

You are one of a select group of Illinoisans asked to furnish information on your gray partridge hunting activities during the past hunting season.

The information supplied by you and other selected hunters is vital to the management of the Illinois gray partridge which is also known as Hungarian partridge or "hun". Our goals are to safeguard gray partridge populations, to grant maximum hunting opportunity to licensed hunters, and to maintain an attractive level of hunter success.

The information you provide will be used to better understand the characteristics of the Illinois gray partridge population and gray partridge hunters. It also will help us understand how hunters view their sport.

Your reply is very important, even if you did not hunt gray partridge or were not successful this past season. Only a limited number of hunters can be contacted, therefore, your response is urgently needed.

Please take a few minutes to fill out the parts of the questionnaire that apply to you. If you do not remember exact figures, please give your best estimate.

Drop the completed questionnaire in the mail. Postage is prepaid.

Sincerery,

Jeffrey M. Ver Steeg

Chief

Division of Wildlife Resources

JMV:LD:rls

Enclosure

Figure 2. The letter that accompanied the first mailing of the questionnaire.

Dear Fellow Sportsman:

Recently we mailed you a Gray Partridge Hunter Survey, and requested that you fill it out and return it as soon as possible. We have not received your form at this time. Perhaps you have misplaced the questionnaire or haven't found time to complete it.

We are enclosing another questionnaire which we hope you will complete and return to us. If you have already returned a questionnaire, please discard this one. The information supplied by you and other gray partridge hunters being sampled will be of great value to the Department of Conservation in better directing the management of our wildlife resources.

Please fill out the questionnaire completely and return it even if you did not hunt gray partridge or were not successful this past season.

Please drop the completed questionnaire in the mail. Postage is prepaid. Your prompt attention will be sincerely appreciated.

Thank you.

Sincerely,

Jeffrey M. Ver Steeg

Chief

Division of Wildlife Resources

JMV:LD:rls

Enclosure

Figure 3. The letter that accompanied the second mailing of the questionnaire.

Brent Manning, Director

John W. Comerio, Deputy Director

Bruce F. Clay, Assistant Director

Dear Fellow Sportsman:

This letter is to remind you that we still would like to receive a report of your gray partridge hunting activities for the past season. We don't like to keep bothering you, but this information is very important and only you can supply it.

Another copy of the questionnaire is enclosed. We hope you will complete it and return it as soon as possible. If you have already returned a questionnaire, please discard this one. Your response is needed, even though you did not hunt gray partridge this past year or had an unsuccessful season.

Postage is prepaid for returning the questionnaire. Please drop the completed questionnaire in the mail. Your prompt attention will be greatly appreciated.

Thank you.

Sincerely,

Jeffrey M. Ver Steeg

Chiet

Division of Wildlife Resources

JMV:LD:rls

Enclosure

Figure 4. The letter that accompanied the third mailing of the questionnaire.

Name	County	y of Residence	*Check species hunted last season
Address	City, State & Zip (☐ Rabbit ☐ Quail ☐ Pheasar ☐ Squirrels ☐ Furbearers ☐ Crow ☐ Doves ☐ Woodcock
Signature of Applicant		Date	☐ Partridge ☐ Groundhog ☐ Trapped for Furbearers
Habitat Stamp		TMENT OF CO	ONSERVATION 1993 3108
Habitat Stamp	ILLINOIS DEPART	·	
Name	ILLINOIS DEPART	TMENT OF CO	ONSERVATION 1993 3108 *Check species hunted last season Rabbit Quail Pheasar
	ILLINOIS DEPART	TMENT OF CO	ONSERVATION 1993 3108 *Check species hunted last season

Figure 5. The stubs that were attached to the 1993 Illinois Habitat Stamps.

DEAR PARTRIDGE HUNTER: MY PERSONAL HUNTING RECORD The Department of Conservation is interested in information Date Number Number Date Number Number Hours Hours about gray partridge, also known as Hungarian partridge or of Partridge Cripples of Partridge Cripples Hunted Hunted "huns". You have been identified as a partridge hunter from Harvested Harvested Hunt Lost Hunt Lost your Habitat Stamp stub. Please keep an accurate record of the number of days that you hunt partridge and the number that you harvest in Illinois. DO NOT MAIL THIS CARD At the close of the hunting season, we will send you a questionnaire to fill out and return to us. This information will assist the Department in the proper management of the Illinois wildlife resource. Thank you for your cooperation. Printed by authority of the State of Illinois. 5M - 10-93 The Illinois Department of Conservation receives Federal financial assistance and therefore must comply with the laderal anti-discrimination laws. In compliance with the Illinois Pluman Rights Act, the Illinois Constitution. The VI of the 1984 Civil Rights Act, Section 504 of the Rehabilitation Act of 1973 as amended, and the U.S. Constitution. The Illinois Department of Conservation does not discriminate on the basis of race, coto, sext, national origin, age, or disability. If you believe you have been discriminated against in any program, activity, or facility please contact the Equal Employment Opportunity Officer, Department of Conservation, 524 S. Second St., Springfeld, II. 62701-1787, 277782-7916 or the Office of Human Resources, U.S. Fish & Wildlife Service, Washington, D.C. 20240. Department of Conservation information is available to the hearing impaired by calling DOC's Telecommunications Device for the Dest: 217782-9715. The Illinois Relay Number is 800/S28-0844.

Season Totals __

IL 422-0833

Figure 6. The preseason notice that was sent to persons on the mailing list for the 1993 Illinois Gray Partridge Hunter Survey.

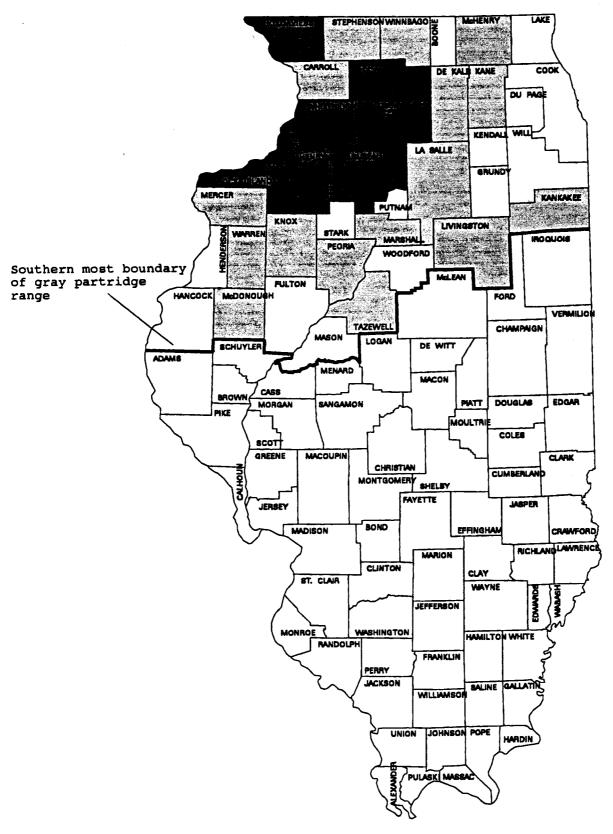


Figure 7. Illinois counties in which hunters reported hunting wild gray partridge in 1993-94. The dark-shaded counties each accounted for >5% of the days afield.