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ILLINOIS WATERFOWL HARVEST, HUNTER ACTIVITY, AND ATTITUDES TOWARD TEAL/DUCK/GOOSE REGULATIONS AND GOOSE HARVEST MONITORING SYSTEM, PLUS AGES OF HUNTERS, 1995-96 SEASON

William L. Anderson, Investigations and Surveys Program Raymond M. Marshalla, Waterfowl Program Manager Richard M. Whitton, Waterfowl Project Manager

Abstract: Purchasers of the previous year's (1994) Illinois Migratory Waterfowl Stamp were sampled via mail questionnaire to obtain information on waterfowl harvest, hunter activity, and attitudes toward selected issues, during the 1995 season $(60,564$ stamps were sold in 1995). Of 2,675 respondents ( $68 \%$ response), 414 (15\%) did not purchase a stamp again in 1995. Thus, the sample size was reduced to 2,261 respondents, $88 \%$ of which hunted waterfowl in Illinois in 1995-96. An estimated 55,454 hunters (4\% more than in 1994) expended 884, 328 days afield ( $8 \%$ more than in 1994) and harvested 498,854 waterfowl ( $50 \%$ more than in 1994). The ratio of duck hunters to goose hunters was 1.15:1 in 1995-96. During the September teal season, 9,123 hunters spent 24,865 days afield and harvested 19,731 teal ( $59 \%$ more than in 1994). During the regular duck season (increased from 40 to 50 days), 42,499 hunters expended 482,620 days afield and harvested 377,292 ducks (53\% more than in 1994) and 3,386 coots. Among duck hunters, 40\% used private areas, 27\% used public areas, and 33\% used both types of areas. During the experimental early September giant Canada goose season in 9 northeastern counties (Region 2), 2,591 hunters spent 9,502 days afield and harivested 2,784 Canada geese. During the regular goose season, 37,060 hunters devoted 367,341 days afield to harvest 92,478 Canada geese ( $36 \%$ more than in 1994) and 3,183 other geese. The Canada goose harvest included 35,414 taken in the Southern Illinois Quota Zone, 5,877 taken in the Rend Lake Quota Zone, 5,902 taken in North quota Zone Counties, and 15,684 taken in Central quota zone Counties, which collectively accounted for $68 \%$ of the statewide harvest. The estimated goose harvest in the North and Central quota zone Counties was 25\% less than the harvest recorded for these counties via the phone-in monitoring system. In the Southern Illinois Quota Zone, 48\% of the Canada goose harvest occurred in Williamson county. In the Rend Lake Quota Zone, 70\% of the Canada goose harvest took place in Jefferson County. Statewide, 58\% of the goose hunters used private areas, $11 \%$ used public areas, and 31\% used both types of areas. Among goose hunters, 4,988 ( $13 \%$ ) hunted (or planned to hunt) snow geese during the late (to March 10) season in Illinois. The harvests of Canada geese by county, zone, and region are presented in Appendix A.

Majorities of the teal hunters liked the dates used for the September teal season (67\%) and were supportive of the idea of dividing the state into zones for teal hunting (63\%). Majorities of the duck hunters supported the dates used for the regular duck season (60\%) and opposed changing legal shooting time from $1 / 2$ hour before sunrise to sunrise (63\%). Majorities of the goose hunters preferred having 3 Canada geese in the daily bag (71\%) and supported the current phone-in Canada goose harvest monitoring system in the North and Central Waterfowl Zones (50\%). Majorities of duck and goose hunters supported the concept of a September Canada goose hunting season (North and Central Zones) (64-86\%); voted for having 3 basic waterfowl hunting zones in the state (66-70\%) ; were satisfied with the current locations of the boundaries that separate the North, Central, and South Waterfowl Zones (58-68\%) ; and were concerned about Federal baiting regulations ( $60-61 \%$ ). Bismuth shot was used (tried) by $4 \%$ of the duck hunters and $5 \%$ of the goose hunters. Illinois waterfowl hunters averaged 41 years of age following the 1995 season.

The purpose of this study was to collect information via mail questionnaire from a systematic sample of waterfowl hunters in Illinois following the 1995-96 hunting season. Data were obtained for waterfowl harvest, hunter activity, and attitudes of hunters toward selected hunting regulations and other subjects. The questionnaire used for the 1995-96 season (Fig. 1) was similar to those employed in previous years (Anderson 1983, 1984, 1985, 1986, 1987, 1988, and 1989; Anderson and. Williamson 1990, 1991, 1992, 1993, 1994; Anderson et al. 1995, 1996).

## METHODS AND MATERIALS

The mailing list for the 1995-96 questionnaire was compiled by systematically selecting stubs from the sales of 36,540 of the previous year's (1994) Illinois Migratory Waterfowl Stamps. The stamps were printed with matching (i.e., same I.D. numbers) stubs attached. Vendors were instructed to write each stamp purchaser's name and mailing address on the stub, and to return
the stubs to the Department of Natural Resources (DNR) Permit Office in Springfield. Persons on the mailing list were notified via letter postmarked 23 October 1995 that they would receive a questionnaire at the close of the hunting season. The notice included a form for keeping records of hunting activity and waterfowl harvested (Fig. 2).

Methods used to mail the 1995-96 Illinois Waterfowl Hunter Survey questionnaire and to process data from returned questionnaires were similar to those employed in previous years (Anderson 1983). On 19 January 1996, the questionnaire and a cover letter (Figs. 1 and 3) were mailed to 3,966 purchasers ( 3,483 residents and 483 non-residents) of the Illinois Migratory Waterfowl Stamp. Non-respondents were mailed 2nd and 3rd copies of the questionnaire and accompanying letters (Figs. 4 and 5) on 4 March and again on 11 April, respectively. As of 3 June 1996, 2,675 usable questionnaires were returned for a response rate of 68\%. In 1986-1994, when the mailing lists were comparable to the 1995-96 list, response rates were 70-75\%.

Procedures used to estimate numbers of hunters, days afield, waterfowl harvested, cripples lost, and confidence intervals were as described in the final report for the 1984 survey (Anderson 1986), with the following exceptions. The adjustment factors for stamp-exempt hunters were changed from 1.182 to 1.085 for duck hunters, from 1.218 to 1.087 for goose hunters, and from 1.200 to 1.086 for all waterfowl hunters (Anderson 1986:7). These changes were necessary because, beginning in 1994, senior ( $\geq 65$ years) hunters were no longer exempt from purchasing the Illinois

Migratory Waterfowl Stamp. The adjustment factors accounted for the number of stamp-exempt hunters relative to the number of stamp-purchasing hunters. Thus, the latter covered hunters 16-64 years of age in 1981-1993 and hunters $\geq 16$ years (i.e., included seniors) in 1994 and 1995. The 1995-96 estimates of waterfowl harvest and hunter activity were based on a sales of 60,564 of the 1995 Illinois Migratory Waterfowl Stamps.

## SEASON LENGTHS AND BAG LIMITS

Illinois' early teal season took place on 9-17 September 1995, and the daily bag limit was any aggregate of 4 blue-winged or green-winged teal. Legal. shooting hours were from sunrise to sunset.

The regular duck season was increased from 30 days in 1993 to 40 days in 1994 to 50 days in 1995. The bag limit was 5 ducks (4 mallards) per day using the Conventional System (from 3 ducks [2 mallards] in 1993 and 1994), and legal shooting time was 1/2 hour before sunrise to sunset (Fig. 6).

For Canada geese, the 1995 season length was 93 days (51 days in 1994) in the North Zone and Central Zone. These seasons were continuous. The Canada goose harvest monitoring system implemented in 18 counties in the North and Central Zones in 1994 was continued in 1995 (Fig. 6). Goose hunters in these counties were required to obtain a special permit (Fig. 7), which was issued free with purchase of the Illinois Migratory Waterfowl Stamp. Canada goose hunters were required to report Canada geese harvested daily utilizing a toll-free phone number (1-800-

WETLAND) in these select counties. The quotas were 22,014 Canada geese for the North Quota Zone Counties and 35,168 for the Central Quota Zone Counties. Procedures for calculating the quotas are described in a document prepared by the DNR's Waterfowl Program (Anonymous 1994).

The Canada goose season extended for 89 days ( 51 days in 1994) in the South Waterfowl Zone. In the Southern Illinois and Rend Lake Quota Zones, the seasons were 89 days or when 62,691 and 17,830 Canada geese were harvested, respectively. The statewide quota was 172,600 Canada geese (109,600 in 1994). The bag limit was 3 Canada geese per day ( 2 in 1994) statewide:

The early (September) Canada goose season was offered in 9 counties (Cook, DuPage, Grundy, Kane, Kendall, Kankakee, Lake, McHenry, and Will) in northeastern Illinois in 1995. The dates for this season were 1-14 September, and the bag limit was 5 Canada geese per day. Legal shooting hours were $1 / 2$ hour before sunrise to sunset.

## FINDINGS

Of the 2,675 respondents to the questionnaire, 414 (15\%) did not purchase an Illinois Migratory Waterfowl Stamp again in 1995. The other 2,261 respondents purchased an average of 1.16 stamps each: $91 \%$ purchased 1 stamp, 8\% purchased 2 stamps, 1\% purchased 3-5 stamps, and $<1 \%$ purchased $\geq 6$ stamps. Of the 2,261 stamp purchasers, 1,990 ( $88 \%$ ) hunted waterfowl in Illinois during the 1995 season.

Waterfowl Harvest and Hunter Activity
An estimated 55,454 waterfowl hunters (4\% more than in 1994) were active in Illinois during the 1995 season (Table 1). They spent 884,328 days afield (8\% more than in 1994) and harvested 498,854 waterfowl (50\% more than in 1994).

Of the 55,454 hunters who were active in 1995, 33\% hunted ducks only, $23 \%$ hunted geese only; and $44 \%$ hunted both ducks and geese (Table 2). It is noteworthy that the percentage of waterfowl hunters who pursued ducks decreased from an average of $88 \%$ in 1981-1987 to an average of $77 \%$ in 1988-1995. Conversely, the percentage of waterfowl hunters who pursued geese increased from an average of $42 \%$ in 1981-1987 to an average of 70\% in 19881995 (Table 2).

September Teal Season. An estimated 9,123 hunters spent 24,865 days afield, and harvested 19,731 teal during Illinois' 9-day September teal season in 1995 (Table 3). There were more teal hunters $(2,309)$, more days afield $(6,981)$, and more teal harvested $(6,117)$ in Administrative Region 1B than in any other region. Region 3 A was a close 2 nd in all three categories. Three-fourths (75\%) of the teal hunters were active in the same county in which they hunted most during the regular duck season.

The 1995 estimates for teal hunters, days afield, and teal harvested were 13-59\% greater than comparable estimates for 1994 (Table 4). However, teal harvest and hunting activity were, on the average, 44-54\% less in 1992-1995 than in 1984-1987. The U.S. Fish and Wildlife Service (FWS) suspended the September season during the 4 years from 1988 to 1991.

Hunter success rates during the September season in 1995 were 0.79 teal per hunter per day afield and 2.16 teal per hunter per season. Success rates in previous years ranged from 0.51 to 0.83 teal per hunter per day afield and from 1.32 to 2.31 teal per hunter per season (Table 5).

The FWS estimated that Illinois' September teal harvest increased from 7,650 birds in 1994 to 10,710 birds in 1995 (Martin and Padding 1996).

Regular Duck Season. An estimated 42,499 individuals hunted ducks during the regular duck season in Illinois in 1995 (Table 6). These hunters harvested 377,292 ducks in 482,620 days afield. There were more duck hunters ( $11 ; 320$ ), more days spent afield (138,789), and more ducks harvested $(117,218)$ in Region 1B than in any other region. Compared to the previous year, the number of duck hunters decreased 4\%, days afield increased 2\%, and duck harvest increased 52\% in 1995 (Table 7).

The 377,292 ducks harvested in Illinois in 1.995 included an estimated 230,505 mallards, 47,155 wood ducks, and 99,632 other ducks (including 5,393 canvasback). The FWS estimated that 267,269 total ducks were harvested in the state during the regular duck 1995 season, which included 154,107 mallards, 28,357 wood ducks, and 84,805 other ducks (including 2,913 canvasback) (Martin and Padding 1996). The FWS estimates indicated that duck harvest increased $21 \%$ in Illinois, $58 \%$ in the Mississippi Flyway, and 46\% in the United States, from 1994 to 1995.

Statewide, hunter success rates were 0.74 duck per hunter per day afield and 8.40 ducks per hunter per season in 1995
(Table 8). From 1981 to 1994, success rates ranged from 0.48 to 0.72 duck per hunter per day afield and from 4.30 to 8.00 ducks per hunter per season. Based on these comparisons, the 1995 season was a highly successful year for duck hunters in Illinois. Two-thirds (66\%) of the duck hunters were active in a single county, $24 \%$ were active in 2 counties, and $10 \%$ were active in $\geq 3$ counties. Similarly, 53\% of the duck hunters were active in their county of residence and $31 \%$ were active only in their county of residence. Statewide in $1995,40 \%$ of the duck hunters were active on private areas, $27 \%$ were active on public areas, and $33 \%$ were active on both types of areas $(n=1,485)$.

Coot Hunting. The coot harvest was estimated at 3,386 birds in Illinois in 1995, 13\% less than the estimated harvest for 1994 (Tables 6 and 7). The FWS estimated the Illinois coot harvest at 1,054 birds for the 1995 season, up $2 \%$ from that agency's estimate for 1994 (Martin and Padding 1996).

September Giant Canada Goose Season. This experimental early Canada goose hunting season took place on 1-14 September in 9 counties in northeastern Illinois. An estimated 2,591 hunters spent 9,502 days afield, and harvested 2,784 Canada geese during this early season. Kane, Lake, McHenry, and Will counties accounted for $78 \%$ of the harvest. In 1991, when the last experimental September season was offered, an estimated 3,953 hunters spent 11,635 days afield and harvested 3,510 Canada geese.

Reqular Goose Season. An estimated 37,060 goose hunters were active during the regular goose season in Illinois in 1995-

96, and they spent 367,341 days afield (Table 10). Among these hunters, $58 \%$ used private areas, $11 \%$ used public areas, and $31 \%$ used both types of areas $(n=1,282)$. The Southern Illinois Quota Zone (Alexander, Jackson, Union, and Williamson counties), located in Region 5, accounted for $43 \%$ of the goose hunters and $30 \%$ of the days afield. The Rend Lake Quota Zone (Franklin and Jefferson counties), also in Region 5, accommodated $11 \%$ of the hunters and $8 \%$ of the days afield. The remainder of the state was associated with $63 \%$ of the hunters and $62 \%$ of the days afield. statewide, the number of goose hunters and their days afield increased $67 \%$ and 247\%, respectively, from 1985 to 1995 (Table il).

There were an estimated 95,661 geese harvested during the regular goose season in Illinois in 1995-96, which included 92,478 Canada geese and 3,183 other geese (Table 10). The Canada goose harvest increased $36 \%$ between 1994-95 and 1995-96 (Table 11). The FWS estimated that 101,524 Canada geese, 4,884 other geese, and 106,408 total geese were taken in the state in 1995-96 (Martin and Padding 1996).

Canada goose harvest in the Southern Illinois Quota Zone was tabulated (via daily registration forms) at 35,414 birds during the 1995-96 season (Whitton 1996a). This represents $38 \%$ of the statewide harvest of Canada geese during the regular goose season. In the Rend Lake Quota Zone, an estimated 5,877 Canada geese ( $6 \%$ of state's total harvest) were taken. This estimate was $20 \%$ less than the projected harvest (i.e., projected from the reported harvest on public hunting areas) of 7,375 Canada geese
for the entire Rend Lake Quota Zone (Whitton 1996b).
The Canada goose harvest in the 18 North and Central Quota Zone Counties was estimated at 21,586 birds (Tables 12 and 13). In comparison, the phone-in monitoring system tabulated a harvest of 28,744 Canada geese in these counties (Table 13). Thus, the two procedures--the mail-questionnaire survey and the phone-in monitoring system--produced Canada goose harvest estimates for the 18 Quota Counties that differed by 25\% in 1995-96.

It is noteworthy that 24 of Illinois' 102 counties were covered by a Canada goose harvest monitoring system during the 1995-96 season. These included 18 counties in the North and Central Zones, the 2 counties comprising the Rend Lake Quota Zone, and the 4 counties comprising the Southern Illinois Quota Zone. Collectively, these 24 counties accounted for $68 \%$ of the Canada goose harvest in Illinois in 1995-96 (Table 14). The harvests of Canada geese by county, zone, and administrative region in 1993-1995 are presented in Appendix A.

Statewide, hunters experienced an overall success rate of 0.25 goose per hunter per day afield and 2.47 geese per hunter per season in 1995-96 (Table 10). In the Southern Illinois Quota Zone, success was 0.32 and 2.26 geese, respectively. Similarly, hunter success was 0.22 and 1.48 geese at Rend Lake, and 0.21 and 2.12 geese in the remainder of the state. In comparison, statewide success rates ranged from 0.15 to 0.32 goose per hunter per day afield and from 0.95 to 2.63 geese per hunter per season in 1981 through 1994 (Table 15).

According to information reported by goose hunters in the

Southern Illinois Quota Zone, $43 \%$ of the days afield in that zone occurred in Williamson County, 26\% in Alexander County, 20\% in Union County, and 11\% in Jackson County (Table 16). Similarly, 48\%, 25\%, 19\%, and $9 \%$ of the Canada goose harvest took place in these counties, respectively. For the Rend Lake Quota Zone, 54\% of the days afield and $70 \%$ of the Canada goose harvest occurred in Jefferson County. The remaining days afield (46\%) and Canada goose harvest (30\%) were associated with Franklin County.

Crippling Losses. Crippling losses (birds knocked down but not retrieved) were estimated at 86,834 ducks, 18,391 geese, and 1,085 coots in Illinois during the 1995-96 hunting season (Table 17). These estimates, which are considered to be indices and not actual numbers, equate to 23.0 ducks, 19.2 geese, and 32.0 coots lost per 100 harvested. The 1995 crippling rates are among the lowest recorded in Illinois since the Illinois Waterfowl Hunter Survey was initiated in 1981.

Nationwide crippling rates for ducks and geese during the 1995 season, as measured via hunter questionnaire surveys conducted by the FWS, were similar to, or lower than, the rates that prevailed in the 1950's and 1960s (Table 18).

Bismuth Shot. When asked whether they used bismuth shot for any of their waterfowl hunting in Illinois during the 1995-96 season, $3.8 \%(n=1,457)$ of the duck hunters and $4.9 \%(n=1,282)$ of the goose hunters answered in the affirmative.

Attitudes and Opinions of Hunters
Dates and Splits for September Teal.Season. A majority
(67\%) of the teal hunters thought the dates selected for the September teal season in 1995 (September 9-17) were about right (Table 19). This sentiment prevailed in all waterfowl zones and administrative regions in the state.

A majority (63\%) of the teal hunters also supported the idea of dividing the state into zones for purposes of setting the dates for the September teal season (Table 20). This preference predominated in all waterfowl zones.

Dates and Shooting Time for Regular Duck Season. According to responses to question \#20, majorities (63-67\%) of the duck hunters in the North and Central Waterfowl zones thought the dates used for the regular duck season in 1995 were about right (Table 21). Although a plurality (47\%) of the duck hunters in the South zone expressed these same feelings, $42 \%$ thought the season was too early.

Majorities (61-69\%) of the duck hunters in all zones were opposed to changing legal shooting time from $1 / 2$ hour before sunrise to sunrise (Table 22). Over the years, duck hunters have consistently exhibited a preference for beginning legal shooting time at $1 / 2$ hour before sunrise: 74\% in 1981, 65\% in 1988, 63\% in 1989, and 76\% in 1992 (Anderson 1983, Anderson and Williamson 1990, 1991, 1994).

September Canada Goose Season. Majorities (64-86\%) of the hunters in the North and Central Waterfowl Zones were supportive of having a Canada goose hunting season in their county of residence, in the county where they goose hunt most, and in the county where they duck hunt most (Tables 23-25). Hunters in the

South Waterfowl Zone were less than enthusiastic about this early season: their support was $38 \%, 50 \%$, and $45 \%$, respectively.

Goose Harvest Monitoring System in North and Central Zones. The goose harvest monitoring system implemented in the North and Central Waterfowl Zones in 1994-95 was continued in. 1995-96. With this system, goose hunters in selected counties in each zone must daily report, via toll-free telephone number, their harvest of Canada geese. When the harvest quota is reached in these counties, the Canada goose season is closed throughout the zone. The alternative is a system that requires all goose hunters in each zone to report their Canada goose harvest. The survey indicated that $50-54 \%$ of the goose hunters preferred the monitoring system that is in place, which requires hunters in selected counties to report their goose harvest. One-fourth (2325\%) of the hunters voted for the alterative system, and the remaining (21-27\%) hunters did not have an opinion (Table 26). Thus, those hunters who indicated a preference favored the current monitoring system by a margin of 2 to 1 .

Number of Canada Geese in Daily Bag. Majorities (70-78\%) of goose hunters throughout the state preferred regulations that allow a limit of 3 Canada geese per day during the regular goose season (Table 27). Almost all of the remaining hunters (19-25\%) chose a limit of 2 Canada geese per day.

Number of Waterfowl Zones and Zone Boundaries. A majority (70\%) of the duck hunters thought that Illinois should be divided into 3 basic zones for purposes of setting the waterfowl hunting seasons (Table 28). These sentiments, which were echoed by goose
hunters, were consistent throughout the state.
Majorities (60-75\%) of the duck hunters and goose hunters in each zone thought the locations of the boundaries that divided the North, Central, and South Waterfowl Zones in 1995-96 were about right (Tables 29 and 30). Hunters who were active in the boundary counties (i.e., the counties in which the boundaries were located) were also supportive (58-68\%) of the present locations of the boundaries.

Federal Baiting Regulations. Majorities (60-61\%) of the duck hunters and goose hunters expressed (some or great) concern about the Federal baiting regulations (Tables 31 and 32). Interestingly, $20 \%$ of the hunters said they didn't know enough about the regulations to express a view.

Ages of Stamp Purchasers and Waterfowl Hunters
The average age of 1995 Illinois Migratory Waterfowl Stamp purchasers was 41.5 years (Table 33). The stamp purchasers who hunted ducks averaged 40.4 years and those who hunted geese averaged 39.8 years. More than one-half (53-55\%) of the stamp purchasers/waterfowl hunters were between 31 and 50 years of age. Senior ( $\geq 65$ years) hunters accounted for $8 \%$ of both the stamp purchasers and waterfowl hunters. Junior ( $\leq 15$ years) hunters are under represented in Table 33 because they were not required to purchase a state waterfowl stamp. However, the proportionate numbers of junior hunters was estimated to equate to 8.5\% (duck hunters), 8.7\% (goose hunters), and 8.6\% (all waterfowl hunters) of the stamp-purchasing ( $\geq 16$ years) hunters (Anderson et al.

1996:3-4). If juniors are included in the age distribution, all of the percentages must be adjusted accordingly.

## DISCUSSION

Because of improved water and habitat conditions in prairie Canada and the northern U.S., the fall flight of ducks increased from 59 million in 1993 to 71 million in 1994 to 80 million in 1995 (Canadian Wildlife Service and U.S. Fish and Wildlife Service 1994 and 1995). As a result, the duck seasons in Illinois and other Mississippi Flyway states were extended from 30 days in 1988-1993 to 40 days in 1994 to 50 days in 1995. The daily bag limit was increased from 3 ducks ( 2 mallards) in 19881994 to 5 ducks (4 mallards) in 1995.

In response to the longer duck seasons, the number of days afield devoted to duck hunting increased 30\% from 1993 to 1994 and 2\% from 1994 to 1995 (Table 7). The number of duck hunters also increased (+9\%) from 1993 to 1994; however, their numbers decreased (-4.8) from 1994 to 1995. The duck harvest increased ( $+13 \%$ and $+53 \%$ ) in both years. The increase in duck harvest in 1994 was caused by an increase in hunting activity, whereas the increase in 1995 was due primarily to increases in hunter success (Table 8).

The 1995-96 goose hunting season was one of the best on record in terms of the number of geese harvested and hunter success (Tables 11 and 15). An estimated 95,661 total geese, including 92,478 Canada geese, were harvested during the regular goose season. When the September season is included (Table 9),
the estimates increase to 98,445 total geese and 95,262 Canada geese. These impressive numbers were manifested, in part, by the long (89-93 days) goose seasons that were awarded to the DNR for expanding Illinois' Canada goose harvest monitoring capabilities beginning in 1994.

The Canada goose harvest monitoring system implemented in the North and Central Waterfowl Zones was in effect in 18 counties in both 1994-95 and 1995-96 (Fig. 6). Goose hunters in these counties had to obtain a special permit (issued free with purchase of the Illinois Migratory Waterfowl Stamp), which was used to record each goose harvested immediately after it was reduced to the bag. In addition, the hunters had to daily report the number of Canada geese they harvested via a toll-free phone number. With this monitoring system, harvests tabulated for Canada geese were within $1 \%$ of estimates produced by the mailquestionnaire survey for the Quota Counties in 1994-95 (Anderson et al. 1996). However, agreement was not as good in 1995-96: the phone-in monitoring system recorded 28,744 Canada geese harvested in the quota Counties whereas the estimate produced by the mail-questionnaire survey was 21,586 geese, a difference of 25\% (Table 13). It appears that, in 1995-96, the mailquestionnaire survey under estimated the Canada goose harvest in the 18 Quota counties in northern and central Illinois.

When waterfowl hunters were asked to express their opinions about having an early (September) Canada goose hunting season, those in the North and Central Waterfowl Zones were supportive. Majorities ( $64 \%-86 \%$ ) of these hunters voted for the September
season in their county of residence, in the county where they goose hunt most, and in the county where they duck hunt most (Tables 23-25). Clearly, these hunters--especially those in northern Illinois--are in favor of the September Canada goose hunting season. For hunters in the South Waterfowl zone, the attitude was different: only $38 \%$ (county of residence), $50 \%$ (county goose hunt most), and 45\% (county duck hunt most) supported the September season. To the extend that attitudes and opinions are the overriding factors, we recommend expanding the early (September) Canada goose hunting season to all of the North and Central Waterfowl Zones in Illinois.

Occasionally, various groups of waterfowl hunters ask the DNR to move the boundaries that separate the North and Central Waterfowl Zones, and the Central and South Zones, further north or further south. These hunters believe that, by changing the boundary and thereby "moving" their waterfowling area to a different zone, their hunting will improve. When polled, majorities (60-71\%) of the duck hunters in each zone, as well as in the counties where the boundaries were located, thought the present locations of the boundaries were about right (Table 29). Goose hunters expressed the same views, with $58-75 \%$ supporting the present locations of the boundaries (Table 30). It appears that waterfowl hunters throughout each zone, as well as in the boundary counties, are highly satisfied with the locations of the zone boundaries as they existed during the 1995-96 waterfowl season.

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## LITERATURE CITED

Anderson, W.L. 1983. Illinois waterfowl harvest, hunter activity, and attitudes toward shooting hours, lead poisoning, and steel shot in 1981. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 39. 36pp.
. 1984. Illinois waterfowl harvest, hunter activity, and attitudes toward September teal season, duck hunting zones, and goose hunting regulations in 1982. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 47. 39pp.
. 1985. Illinois waterfowl harvest, hunter activity, and attitudes toward illegal kill during September teal season and goose hunting regulations in 1983. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 48. 31pp.
. 1986. Illinois waterfowl harvest, hunter activity, zones for Carlyle Lake, and shotguns, ammunitions, and boats used in 1984. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 54. 32pp + appendix.
. 1987. Illinois waterfowl harvest, hunter activity, and attitudes toward restrictive duck hunting regulations and steel shot in 1985. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 59. 33pp.
. 1988. Illinois waterfowl harvest, hunter activity, and attitudes toward duck season dates, shooting wood ducks, and September giant Canada goose season in 1986. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 60. 43pp.
. 1989. Illinois waterfowl harvest, hunter activity, and attitudes toward duck season dates, shooting hen mallards, and September giant Canada goose season in 1987. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 61. 39 pp .
, and R.A. Williamson. 1990. Illinois waterfowl harvest, hunter activity, and attitudes toward shooting hen mallard, legal shooting time, point system, and season dates in 1988. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 64. 43 pp .
, and $\qquad$ . 1991. Illinois waterfowl harvest, hunter activity, and attitudes toward duck shooting time; split goose season, and bag limit for canada geese in 1989. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 69. 43pp.
, and $\qquad$ . 1992. Illinois waterfowl harvest, hunter activity, and attitudes toward duck identification, split goose season, and goose season dates in 1990. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 72. 44pp.
$\qquad$ , and $\qquad$ . 1993. Illinois waterfowl harvest, hunter activity, and attitudes toward shooting hen mallards and wood ducks, goose season dates, and a controlled goose hunting area at Rend Lake, in 1991. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 76. 44pp.
, and $\qquad$ . 1994. Illinois. waterfowl harvest, hunter activity, and attitudes toward September teal season, duck shooting time, and goose hunting regulations, in 199293. Ill. Dep. Conser., Waterfowl Program, Period Rep. 80. 58pp + appendix.
, J.M. Levengood, and R.M. Whitton. 1995. Illinois waterfowl harvest, hunter activity, and attitudes toward duck shooting time, goose season dates, and shotgun shell limit for goose hunters, in 1993-94. Ill. Dep. Conser., Waterfowl Program, Period. Rep. 81. 47pp + appendix.
$\qquad$ , $\qquad$ , and $\qquad$ . 1996. Illinois waterfowl harvest, hunter activity, and attitudes toward dates for teal/duck/goose seasons, zone boundaries, and goose harvest monitoring system, in 1994-96. Ill. Dep. Nat. Resour., Waterfowl Program, Period. Rep. 87. 54pp + appendix.

Anonymous 1994. • 1994 Canada goose harvest control proposal. Ill. Dep. Conserv. Rep., Springfield, Ill. 7pp.

Canadian Wildlife Service and U.S. Fish and Wildlife Service. 1994. Waterfowl population status, 1994. Report dated 25 July 1994. 39pp.
, and $\qquad$ - 1995. Waterfowl population status, 1995. Report dated 20 July 1995. 45pp.

Martin, E.M., and P.I. Padding. 1996. Preliminary estimates of waterfowl harvest and hunter activity in the United states during the 1995 hunting season. U.S. Fish and Wildl. Serv.,

Off. Mig. Bird Manage., Admin. Rep. dated July 1996. 34 pp .
Whitton, R.M. 1996a. Canada goose harvest and hunter activity in the 4 -county quota zone during the 1995 season. Ill. Dep. Nat. Resour., Waterfowl Program, Period. Rep. 88. 26 pp .
. 1996b. Waterfowl harvest and hunter use in the Rend Lake quota zone during the 1995 waterfowl season. Ill. Dep. Nat. Resour., Waterfowl Program, Period. Rep. 89. 21pp.

Table 1. Summary of Illinois Migratory Waterfowl Stamps purchased, hunter activity, and waterfowl harvest in Illinois from 1981 through 1995 hunting seasons.

| Season <br> (Year) | Stamps <br> Purchased | Hunters | Days <br> Afield | Waterfowl <br> Harvest |
| :--- | :--- | :--- | :--- | :--- |
| 1981 | 61,929 | 63,652 | 874,730 | 413,264 |
| 1982 | 57,691 | 58,766 | 795,807 | 392,897 |
| 1983 | 56,162 | 58,240 | 815,523 | 475,601 |
| 1984 | 55,250 | 56,533 | 748,390 | 420,357 |
| 1985 | 55,670 | 56,899 | 699,113 | 392,253 |
| 1986 | 59,734 | 61,876 | 887,446 | 467,164 |
| 1987 | $58,803(5,550)^{\text {b }}$ | 60,371 | 814,918 | 354,194 |
| $1988^{c}$ | $53,498(4,350)$ | 53,450 | 644,056 | 264,316 |
| $1989^{c}$ | $55,693(3,570)$ | 55,709 | 749,033 | 322,359 |
| $1990^{c}$ | $55,009(2,390)$ | 55,152 | 708,391 | 270,796 |
| $1991^{\mathrm{c}}$ | $58,421(2,130)$ | 59,038 | 855,279 | 406,854 |
| 1992 | $51,261(1,395)$ | 51,274 | 714,550 | 292,535 |
| 1993 | $50,976(995)$ | 51,340 | 682,498 | 326,446 |
| 1994 | $57,543(955)$ | 53,226 | 816,185 | 332,803 |
| 1995 | $60,564(665)$ | 55,454 | 884,328 | 498,854 |

${ }^{a}$ Teal, ducks, coots, and geese combined. The U.S. Fish and Wildife Service suspended the September teal season in 1988 through 1991.
${ }^{\text {b }}$ Stamps purchased for commercial art purposes. These stamps were not included in the numbers to the left.
${ }^{c}$ The estimates of waterfowl hunters and days afield for these years have been reduced to $92.48 \%$ - $96.48 \%$ of the original estimates. The estimates of waterfowl (teal, ducks, coots, and geese combined) harvested have been reduced to $94.54 \%-97.74 \%$ of the original estimates. See last paragraph of the METHODS section, in Anderson and Williamson (1994) for explanation.

Table 2. The percentage of waterfowl hunters who hunted ducks, and the percentage who hunted geese, in Illinois from 1981 through 1995 seasons.

| Season (Year) | Percentage Who Hunted: |  |  | Percentage Who Were: |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ducks Only | Geese Only | Both Ducks and Geese | Duck <br> Hunters | Goose Hunters |
| 1981 | 63 | 14 | 23 | 86 | 37 |
| 1982 | 59 | 11 | 30 | 89 | 31 |
| 1983 | 55 | 13 | 32 | 87 | 45 |
| 1984 | 60 | 12 | 28 | 88 | 40 |
| 1985 | 61 | 10 | 29 | 90 | 39 |
| 1986 | 51 | 13 | 36 | 87 | 49 |
| 1987 | 47 | 14 | 39 | 86 | 53 |
| 1988 | 36 | 19 | 45 | 81 | 64 |
| 1989 | 29 | 21 | 50 | 79 | 71 |
| 1990 | 27 | 30 | 43 | 70 | 73 |
| 1991 | 26 | 27 | 47 | 73 | 74 |
| 1992 | 31 | 24 | 45 | 76 | 69 |
| 1993 | 30 | 20 | 50 | 80 | 69 |
| 1994 | 30 | 17 | 53 | 83 | 70 |
| 1995 | 33 | 23 | 44 | 77 | 67 |

Table 3. Teal harvest and hunter activity, by administrative regions, during the September teal season in Illinois in 1995 ( $\mathrm{n}=2,261$ ).

| Administrative$\qquad$ | Number of Hunters | Days Afield |  | Teal Harvest |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Per Hunter | Total | Per Day <br> Afield | Per Hunter |
| 1A | 862 | 1,974 | 2.29 | 1,547 | 0.78 | 1.79 |
| 1B | 2,309 | 6,981 | 3.02 | 6,117 | 0.88 | 2.65 |
| 2 | 668 | 1,502 | 2.25 | 502 | 0.33 | 0.75 |
| 3A | 2,281 | 6,564 | 2.88 | 5,671 | 0.86 | 2.49 |
| 3B | 501 | 1,307 | 2.61 | 641 | 0.49 | 1.28 |
| 4 | 1,140 | 2,920 | 2.56 | 2,480 | 0.85 | 2.18 |
| 5 | 1,224 | 3,338 | 2.73 | 2,662 | 0.80 | 2.17 |
| Unknown | 138 | 279 |  | 111 |  |  |
| Entire state | 9,123 | 24,865 | 2.73 | 19,731 ${ }^{\text {b }}$ | 0.79 | 2.16 |

${ }^{\text {a }}$ See Figure 8.
${ }^{6}$ The 95\% confidence interval is $\pm 5,274$.

Table 4. Summary of teal harvest and hunter activity during the September teal season in Illinois from 1981 through 1995.

| Year | Hunters | Days Afield | Teal Harvest |
| :---: | :---: | :---: | :---: |
| 1981 | 14,802 | 38,586 | 22,946 |
| 1982 | 14,863 | 41,856 | 28,785 |
| 1983 | 13,295 | 39,475 | 29,355 |
| 1984 | 14,158 | 39,481 | 32,730 |
| 1985 | 13,852 | 36,521 | 29,260 |
| 1986 | 15,449 | 40,241 | 30,375 |
| 1987 | 12,297 | 32,582 | 23,193 |
| $1988{ }^{\text {a }}$ |  |  |  |
| 1989 ${ }^{\text {a }}$ |  |  |  |
| $1990{ }^{\text {a }}$ |  |  |  |
| 1991* |  |  |  |
| 1992 | 7,696 | 18,265 | 12,069 |
| 1993 | 6,474 | 16,722 | 8,562 |
| 1994 | 8,062 | 20,341 | 12,436 |
| 1995 | 9,123 | 24,865 | 19,731 |

${ }^{\text {a }}$ The September teal season was suspended by the U.S. Fish and Wildife Service during these years.

Table 5. Rates of teal harvest and hunter activity during the September teal season in Illinois in 1981 through 1995.

| Year | $\begin{gathered} \text { Season Length/ } \\ \text { Bag Limit } \end{gathered}$ | Days Afield Per Hunter | $\begin{gathered} \text { Teal Harv } \\ \text { Per Day } \end{gathered}$ | Per Hunter Per Season |
| :---: | :---: | :---: | :---: | :---: |
| 1981 | 9/4 | 2.61 | 0.59 | 1.55 |
| 1982 | 9/4 | 2.82 | 0.69 | 1.94 |
| 1983 | 9/4 | 2.97 | 0.74 | 2.21 |
| 1984 | 9/4 | 2.79 | 0.83 | 2.31 |
| 1985 | 9/4 | 2.64 | 0.80 | 2.11 |
| 1986 | 9/4 | 2.60 | 0.75 | 1.97 |
| 1987 | 9/4 | 2.65 | 0.71 | 1.89 |
| 1988 ${ }^{\text {a }}$ |  |  |  |  |
| 1989 ${ }^{\text {a }}$ |  |  |  |  |
| $1990^{\text {a }}$ |  |  |  |  |
| 1991* |  |  |  |  |
| 1992 | 9/4 | 2.37 | 0.66 | 1.57 |
| 1993 | 9/4 | 2.58 | 0.51 | 1.32 |
| 1994 | 9/4 | 2.52 | 0.61 | 1.54 |
| 1995 | 9/4 | 2.73 | 0.79 | 2.16 |

${ }^{\text {a }}$ The September teal season was suspended by the U.S. Fish and Wildlife Service during these years.
Table 6. Duck and coot harvest and hunter activity, by administrative regions, during the regular duck season in Illinois in 1995 ( $n=2,261$ ).

| Administrative Region ${ }^{\text {a }}$ | Number of Hunters | Days. Afield |  | Duck Harvest |  |  |  | Coot <br> Harvest |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Per Hunter | Total |  | $\begin{aligned} & \text { Per Day } \\ & \text { Afield } \end{aligned}$ | $\begin{gathered} \text { Per } \\ \text { Hunter } \end{gathered}$ |  |
| 1A | 3,115 | 27,424 | 8.80 | 23,549 | $(1,268)^{c}$ | 0.81 | 7.15 | 70 |
| 1B | 11,320 | 138,789 | 12.26 | 117,218 | $(6,034)$ | 0.80 | 9.82 | 599 |
| 2 | 5,618 | 54,014 | 9.61 | 29,610 | $(2,160)$ | 0.51 | 4.89 | 376 |
| 3A | 9,763 | 127,191 | 13.03 | 99,702 | $(2,299)$ | 0.77 | 9.98 | 1,491 |
| 3B | 1,919 | 21,222 | 11.06 | 13,475 | ( 334) | 0.62 | 6.85 | 571 |
| 4 | 3,588 | 38,828 | 10.82 | 27,646 | $(1,338)$ | 0.68 | 7.33 | 42 |
| 5 | 6,703 | 73,483 | 10.96 | 64,824 | $(6,716)$ | 0.79 | 8.67 | 223 |
| Unknown | 473 | 1,669 |  | 1,268 | $(321)$ |  |  | 14 |
| Entire State | 42,499 | 482,620 | 11.36 | 377,292 | $(20,470)$ | 0.74 | 8.40 | 3,386 ${ }^{\text {f }}$ |

${ }^{\text {a }}$ See Figure 8.
${ }^{\mathrm{b}}$ Excludes ducks harvested coincidentally to goose hunting.
${ }^{c}$ Ducks harvested coincidentally to goose hunting.
${ }^{\text {e}}$ Includes 230,505 mallards, 47,155 wood ducks, and 99,632 other ducks (including 5,393
dine 95\% confidence interval is $\pm 41,930$.
${ }^{\text {f }}$ The $95 \%$ confidence interval is $\pm 2,858$.

Table 7. Summary of duck and coot harvests and hunter activity during the regular duck season in Illinois from 1981 through 1995.

| Season (Year) | Hunters | $\begin{gathered} \text { Days } \\ \text { Afield } \\ \hline \end{gathered}$ | Duck Harvest |  |  |  |  | Coot Harvest |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mallards | Wood Ducks | Other Ducks | Total |  |  |
| 1981 | 54,744 | 703,534 | 170,972 | 72,065 | 94,947 | 337,984 |  | 4,950 |
| 1982 | 52,220 | 646,394 | 163,439 | 61,706 | 101,989 | 327,134 |  | 5,905 |
| 1983 | 50,440 | 651,409 | 220,317 | 72,237 | 110,862 | 403,416 |  | 10,472 |
| 1984 | 49,715 | 606,325 | 182,132 | 52,955 | 120,016 | 355,103 |  | 7,702 |
| 1985 | 51,362 | 556,800 | 168,549 | 51,216 | 97,155 | 316,920 |  | 5,773 |
| 1986 | 53,588 | 638,090 | 201,676 | 65,414 | 112,490 | 379,580 |  | 7,372 |
| 1987 | 51,704 | 558,172 | 155,783 | 58,488 | 74,748 | 289,019 |  | 2,694 |
| $1988{ }^{\text {a }}$ | 43,233 | 381,985 | 119,149 | 23,743 | 42,836 | 185,728 |  | 1,936 |
| $1989{ }^{\text {a }}$ | 43,841 | 407,478 | 133,128 | 28,065 | 63,073 | 224,266 |  | 2,049 |
| $1990^{\text {a }}$ | 38,759 | 350,119 | 112,370 | 33,253 | 51,562 | 197,185 | $(7,144)^{\text {b }}$ | b 2,287 |
| $1991{ }^{\text {® }}$ | 42,911 | 393,247 | 177,221. | 49,556 | 80,793 | 307,570 | $(25,815)$ | 1,101 |
| 1992 | 39,272 | 362,275 | 124,112 | 34,280 | 58,035 | 216,427 | $(11,501)$ | 3,275 |
| 1993 | 40,941 | 366,656 | 134,334 | 39,906 | 43,360 | 217,600 | $(4,320)$ | 1,445 |
| 1994 | 44,447 | 475,264 | 137,263 | 44,683 | 64,998 | 246,944 | $(4,026)$ | 3,880 |
| 1995 | 42,499 | 482,620 | 230,505 | 47,155 | 99,632 ${ }^{\text {c }}$ | 377,292 | $(20,470)$ | 3,386 |

${ }^{\text {a }}$ The estimates of duck hunters, days afield, and ducks and coots harvested for these years have been reduced to $92.48 \%$ - $96.48 \%$ of the original estimates. See last paragraph of the METHODS section in Anderson and Williamson (1994) for explanation.
${ }^{\text {b Ducks }}$ harvested coincidentally to goose hunting.
${ }^{\text {c }}$ Includes 5,393 canvasback.

Table 8. Rates of duck harvest and hunter activity during the regular duck season in Illinois from 1981 through 1995.

| Year | Season Length/ <br> Bag Limit | Days Afield <br> Per Hunter | Duck Harvest Per Hunter |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  | Per Day | Per Season |  |
| 1981 | $50 / 10(4)$ | 12.85 |  |  |
| 1982 | $50 / 10(4)$ | 12.38 | 0.48 | 6.17 |
| 1983 | $50 / 10(4)$ | 12.91 | 0.51 | 6.26 |
| 1984 | $50 / 10(4)$ | 12.20 | 0.62 | 8.00 |
| 1985 | $40 / 5(3)$ | 10.84 | 0.59 | 7.14 |
| 1986 | $40 / 5(3)$ | 11.91 | 0.57 | 6.17 |
| 1987 | $40 / 5(3)$ | 10.80 | 0.59 | 7.08 |
| 1988 | $30 / 3(2)$ | 8.84 | 0.52 | 5.59 |
| 1989 | $30 / 3(2)$ | 9.29 | 0.49 | 4.30 |
| 1990 | $30 / 3(2)$ | 9.03 | 0.55 | 5.12 |
| 1991 | $30 / 3(2)$ | 9.16 | 0.74 | 4.90 |
| 1992 | $30 / 3(2)$ | 9.22 | 0.57 | 6.57 |
| 1993 | $30 / 3$ | $(2)$ | 8.96 | 0.58 |
| 1994 | $40 / 3$ | $(2)$ | 10.69 | 0.51 |
| 1995 | $50 / 5(4)$ | 11.36 | 0.74 | 5.22 |
|  |  |  |  | 8.47 |

${ }^{\text {a }}$ Excludes ducks harvested coincidentally to goose hunting.
bThe Point System was used in 1981-1987. A maximum of 10 ducks ( 4 mallards) was allowed in 1981-1984, and a maximum of 5 ducks ( 3 mallards) was allowed in 1985-1987. The Conventional (Straight) System was used in 1988-1995.

| Table 9.Canada goose harvest and hunter activity, by county, <br> during the experimental early (September) <br> season in northeastern Illinois in 1995. |  |  |  |
| :--- | ---: | ---: | ---: |
| County | Hunters | Days Afield | Canada Geese |
| Cook | 139 | 529 | 361 |
| Dupage | 84 | 223 | 103 |
| Grundy | 111 | 195 | 39 |
| Kane | 390 | 1,477 | 528 |
| Kankakee | 111 | 195 | 0 |
| Kendall | 84 | 251 | 116 |
| Lake | 641 | 2,424 | 619 |
| McHenry | 529 | 1,895 | 528 |
| Will | 418 | 1,728 | 490 |
| Unknown | 84 | 585 | 0 |
| Totals | 2,591 | 9,502 | 2,784 |


| Zone or Administrative Region ${ }^{\text {a }}$ | Hunters | Days Afield |  | . Goose Harvest |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Per <br> Hunter | Canada | Geese | Other | Geese | Total | Geese | $\begin{aligned} & \text { Per Day } \\ & \text { Afield } \end{aligned}$ | Per <br> Hunter |
| Southern IL Quota Zone | 15,939 | 109,592 | 6.98 | 35,414 | $(155)^{c}$ | 709 | $(0)$ | 36,123 | ( 155) | 0.32 | 2.26 |
| Rend Lake Quota Zone | 4,124 | 27,670 | 6.71 | 5,877 | ( 13) | 232 | ( 0) | 6,109 | ( 13) | 0.22 | 1.48 |
| Remainder of |  |  |  |  |  |  |  |  |  |  |  |
| State |  |  |  |  |  |  |  |  |  |  |  |
| 1A | 1,728 | 11,843 | 6.85 | 3,544 | ( 567) | 77 | ( 26) | 3,621 | ( 593) | 0.26 | 1.75 |
| 1B | 9,251 | 83,483 | 9.02 | 15,490 | $(1,804)$ | 348 | ( 90) | 15,838. | $(1,894)$ | 0.17 | 1.51 |
| 2 | 6,130 | 42,020 | 6.85 | 8,841 | ( 786) | 155 | ( 13) | 8,996 | ( 799) | 0.20 | 1. 34 |
| 3A | 3,873 | 27,391 | 7.07 | 4,974 | ( 400) | 206 | ( 64) | 5,180 | ( 464 ) | 0.17 | 1.22 |
| 3 B | 1,560 | 12,483 | 8.00 | 3,209 | ( 64) | 103 | ( 0) | 3,312 | ( 64) | 0.26 | 2.08 |
| 4 | 2,564 | 26,388 | 10.29 | 5,864 | ( 155) | 490 | ( 52) | 6,354 | ( 207) | 0.23 | 2.40 |
| $5^{\text {d }}$ | 2,759 | 24,521 | 8.89 | 8,750 | ( 13) | 863 | (0) | 9,613 | ( 13) | 0.39 | 3.48 |
| Unknown | 334 | 1,950 |  | 515 | $(77)$ | 0 | ( 0) | 515 | ( 77) |  |  |
| Total | 23,295 | 230,079 | 9.98 | 51,187 | $(3,866)$ | 2,242 | (245) | 53,429 | $(4,111)$ | 0.21 | 2.12 |
| Entire State | 37,060 ${ }^{\text {e }}$ | 367,341 | 9.91 | 92,478 | $(4,034)$ | 3,183 | (245) | 95,661 ${ }^{\text {f }}$ | $(4,279)$ | 0.25 | 2.47 |

Table 11. Summary of goose harvest and hunter activity during the regular goose season in Illinois from 1981-82 through 1995-96.

| Season <br> (Year) | Hunters | $\begin{aligned} & \text { Days } \\ & \text { Afield } \\ & \hline \end{aligned}$ | Goose Harvest |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Canada Geese | Other | Geese | Total |
| 1981 | 23,610 | 132,610 | 44,302 ( 6,312) ${ }^{\text {a }}$ | 3,082 | $(1,719)$ | 47,384 ( 8,031) |
| 1982 | 24,058 | 107,557 | 29,574 ( 4,968) | 1,499 | ( 710) | 31,073 ( 5,678) |
| 1983 | 26,199 | 124,639 | 31,395 ( 4,325) | 962 | ( 577) | 32,357 ( 4,902) |
| 1984 | 22,426 | 102,583 | 23,147 ( 2,859) | 1,675 | ( 593) | 24,822 ( 3,452) |
| 1985 | 22,160 | 105,792 | 37,976 ( 5,248) | 2,324 | ( 753) | 40,300 ( 6,001) |
| 1986 | 30,327 | 200,291 | 45,535 (11,348) | 2,625 | 832) | 48,160 (12,180) |
| 1987 | 32,246 | 224,164 | 36,103 ( 3,563) | 1,525 | ( 499) | 37,628 ( 4,062) |
| $1988{ }^{\text {b }}$ | 34,456 | 251,176 | 72,550 ( 3,871) | 1,832 | ( 350) | 74,382 ( 4,221) |
| 1989 ${ }^{\text {b }}$ | 39,459 | 329,369 | 91,379 ( 2,988 ) | 1,715 | ( 182) | 93,094 ( 3,170) |
| $1990^{\text {b }}$ | 40,459 | 346,036 | 67,127 ( 1,515) | 1,319 | 97) | 68,446 ( 1,612) |
| 1991 ${ }^{\text {b }}$ | 43,692 | 450,807 | 92,239 ( 1,245) | 2,434 | ( 70) | 94,673 ( 1,315 ) |
| 1992 | 35,253 | 334,010 | 59,352 ( 2,679) | 1,412 | ( 170) | 60,764 ( 2,849) |
| 1993 | 35,489 | 299,120 | 93,361 ( 1,260) | 1,314 | ( 82) | 94,675 ( 1,342) |
| 1994 | 37,090 | 320,580 | $67,790(1,895)$ | 1,753 | ( 77) | 69,543 ( 1,972) |
| 1995 | 37,060 | 367,341 | 92,478 ( 4,034) | 3,183 | ( 245) | 95,661 ( 4,279) |

${ }^{a}$ Number of geese harvested coincidentally to duck hunting.
${ }^{b}$ The estimates of goose hunters and days afield for these years have been reduced to $92.48 \%$ - $96.48 \%$ of the original estimates. The estimates for geese harvested have not been reduced. See last paragraph of the METHODS section in Anderson and Williamson (1994) for explanation.

Table 12. Canada goose harvest and hunter activity in quota counties in the North and Central Quota Zone Counties in Illinois during the 1995-96 season.

| Zones and Quota Counties | Hunters |  | $\begin{aligned} & \hline \text { Days } \\ & \text { Afield } \\ & \hline \end{aligned}$ | Canada Geese |
| :---: | :---: | :---: | :---: | :---: |
|  | Successfula | Total |  |  |
| North Zone |  |  |  |  |
| DuPage | 223 | 279 | 1,533 | 1,018 |
| Kane | 474 | 892 | 6,855 | 1,108 |
| Lake | 613 | 975 | 7,746 | 1,791 |
| Mchenry | 585 | 1,114 | 6,743 | 1,418 |
| LaSalle ${ }^{\text {b }}$ | 84 | 139 | 1,923 | 150 |
| Will ${ }^{\text {b }}$ | 167 | 251 | 2,229 | 417 |
| Total | 2,146 | 3,650 | 27,029 | 5,902 |
| Central zone |  |  |  |  |
| Calhoun | 223 | 474 | 3,093 | 309 |
| Cass | 167 | 195 | 1,644 | 309 |
| Fulton | 2,397 | 3,316 | 44,277 | 8,802 |
| Jersey | 56 | 251 | 1,310 | 219 |
| Knox | 446 | 1,031 | 6,910 | 670 |
| Mason | 390 | 836 | 8,137 | 1,058 |
| Morgan | 111 | 195 | 2,313 | 657 |
| Peoria | 307 | 696 | 7,551 | 889 |
| Pike | 195 | 334 | 3,873 | 567 |
| Tazewell | 111 | 306 | 2,341 | 503 |
| Woodford | 84 | 223 | 1,616 | 232 |
| LaSalle ${ }^{\text {c }}$ | 111 | 279 | 3,818 | 300 |
| Will ${ }^{\text {c }}$ | 334 | 474 | 4,430 | 834 |
| Grundy | 167 | 474 | 5,127 | 335 |
| Total | 5,099 | 9,084 | 96,440 | 15,684 |

${ }^{\text {a }}$ Harvested $\geq 1$ Canada geese.
${ }^{6}$ North of I-80.
${ }^{\mathrm{c}}$ South of I-80.

| Zones | Phone-in Monitoring System | Mail Questionnaire Survey | Percentage Difference |
| :---: | :---: | :---: | :---: |
| North Zone Quota counties | 11,649 | 5,902 | -49 |
| Central zone Quota counties | 17,095 | 15,684 | -8 |
| Both Zones Quota counties | 28,744 | 21,586 | -25 |

$\left.\begin{array}{lrl}\text { Table 14. Canada goose harvest by zones in Illinois during the } \\ \text { 1995-96 } \\ \text { season. }\end{array}\right)$

Table 15. Rates of goose harvest and hunter activity during the regular goose season in Illinois in 1981-82 through 1995-96.

| Year | Season Length/ <br> Bag Limit | Days Afield <br> Per Hunter | Goose Harvest Per Hunter |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  | Per Day | Per Season |  |
| 1981 | $50 / 2$ | 5.62 |  |  |
| 1982 | $40 / 1-2$ | 4.47 | 0.30 | 1.67 |
| 1983 | $35-40 / 1-2$ | 4.76 | 0.24 | 1.06 |
| 1984 | $20-25 / 1-2$ | 4.57 | 0.22 | 1.05 |
| 1985 | $20-31 / 1-2$ | 4.77 | 0.21 | 0.95 |
| 1986 | $40-50 / 1-2$ | 6.60 | 0.32 | 1.55 |
| 1987 | $40-50 / 2$ | 6.95 | 0.18 | 1.19 |
| 1988 | $50 / 2$ | 7.29 | 0.15 | 1.04 |
| 1989 | $56-60 / 2$ | 8.35 | 0.28 | 2.04 |
| 1990 | $70 / 3$ | 8.55 | 0.27 | 2.28 |
| 1991 | $84-90 / 3$ | 10.32 | 0.19 | 1.65 |
| 1992 | $79 / 2$ | 9.47 | 0.21 | 2.14 |
| 1993 | $46 / 2$ | 8.43 | 0.17 | 1.64 |
| 1994 | $51 / 2$ | 9.64 | 0.31 | 2.63 |
| 1995 | $89-93 / 3$ |  | 0.21 | 1.82 |
|  |  |  |  | 0.25 |

${ }^{\text {a }}$ For Canada geese. The bag limit does not take into consideration restrictive regulations that were in effect in the Tri-County Zone (in Fulton, Knox, and Henry counties), or the Fulton-Knox County Zone, in some years.

# Table 16. Distribution of Canada goose harvest and hunter activity by county in the Southern Illinois and Rend Lake Quota Zones during the $1995-96$ season. Sample sizes are. in parentheses. 

| County | Hunters | Days <br> Afield |
| :--- | :---: | :---: |

## SOUTHERN ILLINOIS QUOTA ZONE

|  | $(519)$ | $(3,512)$ | $(2,588)$ |
| :--- | :---: | :---: | :---: |
|  |  |  | $25.1 \%$ |
| Alexander | $25.8 \%$ | $25.7 \%$ | 18.7 |
| Union | 32.9 | 20.4 | 8.6 |
| Jackson | 11.4 | 11.0 | 47.6 |
| Williamson | 40.3 | 42.9 |  |
|  |  |  |  |
|  | REND LAKE OUOTA ZONE |  |  |
|  | $(138)$ | $(820)$ | $(399)$ |
|  |  | $55.1 \%$ | $46.2 \%$ |
| Franklin | 55.1 | 53.8 | $30.3 \%$ |
| Jefferson |  |  | 69.7 |

Table 17. Summary of the number of ducks, geese, and coots that were crippled (knocked down but not retrieved) in Illinois from 1981 through 1995 seasons.

| Year | Ducks |  | Geese |  | coots |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\begin{array}{r} \text { Per } 100 \\ \text { Bagged } \\ \hline \end{array}$ | Total | $\begin{array}{r} \text { Per } 100 \\ \text { Bagged } \\ \hline \end{array}$ | Total | $\begin{array}{r} \text { Per } 100 \\ \text { Bagged } \end{array}$ |
| 1981 | 104,216 | 30.8 | 12,573 | 26.5 | 1,717 | 34.7 |
| 1982 | 82,287 | 25.2 | 5,868 | 18.9 | 1,595 | 27.0 |
| 1983 | 96,907 | 24.0 | 7,627 | 23.6 | 2,947 | 28.1 |
| 1984 | 84,665 | 23.8 | 5,711 | 23.0 | 3,236 | 42.0 |
| 1985 | 100,191 | 31.6 | 15,918 | 39.5 | 2,357 | 40.8 |
| 1986 | 145,283 | 38.3 | 20,699 | 41.5 | 2,770 | 37.6 |
| 1987 | 98,155 | 34.0 | 18,375 | 48.8 | 2,013 | 74.7 |
| $1988{ }^{\text {a }}$ | 65,856 | 35.5 | 22,730 | 30.6 | 1,020 | 52.7 |
| 1989 ${ }^{\text {a }}$ | 66,150 | 29.5 | 21,696 | 23.3 | 1,083 | 52.9 |
| 1990 ${ }^{\text {a }}$ | 59,007 | 29.9 | 23,895 | 34.9 | 868 | 38.0 |
| 1991 ${ }^{\text {® }}$ | 74,932 | 24.4 | 27,164 | 28.7 | 301 | 27.3 |
| 1992 | 68,027 | 31.4 | 18,631 | 32.1 | 1,450 | 45.7 |
| 1993 | 62,250 | 28.6 | 21,067 | 22.3 | 813 | 40.0 |
| 1994 | 65,266 | 26.4 | 16,234 | 23.3 | 1,167 | 30.1 |
| 1995 | 86,834 ${ }^{\text {b }}$ | 23.0 | 18,391 ${ }^{\text {b }}$ | 19.2 | 1,085 ${ }^{\text {b }}$ | 32.0 |

${ }^{\text {a }}$ The estimates of ducks, geese, and coots crippled for these years have been reduced to $92.48 \%$ - $96.48 \%$ of the original estimates. The estimates for number of geese crippled per 100 bagged have been similarly reduced. See last paragraph of the METHODS section in Anderson and Williamson (1994) for explanation.
$b_{\text {The }} 95 \%$ confidence intervals were $\pm 7,094$ for ducks, $\pm 2,193$ for geese, and $\pm 1,583$ for coots.

Table 18. Summary of the number of waterfowl that were crippled (knocked down but not retrieved) per 100 birds retrieved in the United States from 1952 through 1995 seasons. Data from U.S. Fish and Wildlife Service, Office of Migratory Bird Management, Hunter Questionnaire Surveys.

| Year | Ducks | Geese | Coots |
| :---: | :---: | :---: | :---: |
| 1952 | 27.9 | 22.9 | --- ${ }^{\text {a }}$ |
| 1953 | 22.5 | 16.1 | --- |
| 1954 | 23.0 | 17.1 | --- |
| 1955 | 23.6 | 19.9 | --- |
| 1956 | 23.3 | 16.8 | --- |
| 1957 | 21.8 | 17.6 | --- |
| 1958 | 23.3 | 19.6 | --- |
| 1959 | 20.2 | 19.9 | --- |
| 1960 | 23.0 | 17.9 | --- |
| 1961 | 22.1 | 17.9 | --- |
| 1962 | 22.6 | 17.5 | --- |
| 1963 | 23.8 | 18.6 | --- |
| 1964 | 23.8 | 17.9 | --- |
| 1965 | 23.5 | 18.6 | --- |
| 1966 | 22.4 | 16.1 | --- |
| 1967 | 22.0 | 15.9 | --- |
| 1968 | 23.2 | 16.1 | --- |
| 1969 | 22.5 | 14.4 | --- |
| 1970 | 21.1 | 15.3 | --- |
| 1971 | 22.1 | 15.4 | 28.2 |
| 1972 | 22.4 | 15.5 | 29.6 |
| 1973 | 21.9 | 14.8 | 29.2 |
| 1974 | 21.5 | 14.3 | 29.1 |
| 1975 | 20.3 | 13.0 | 28.9 |
| 1976 | 19.4 | 14.2 | 26.8 |
| 1977 | 20.5 | 14.9 | 28.9 |
| 1978 | 20.2 | 15.7 | 29.0 |
| 1979 | 20.3 | 14.3 | 27.1 |
| 1980 | 19.2 | 12.9 | 30.9 |
| 1981 | 19.4 | 13.2 | 22.7 |
| 1982 | 19.2 | 15.2 | 27.7 |
| 1983 | 19.4 | 14.4 | 23.7 |
| 1984 | 19.5 | 14.2 | 30.4 |
| 1985 | 19.7 | 14.0 | 24.3 |
| 1986 | 20.1 | 15.7 | 32.5 |
| 1987 | 24.5 | 20.5 | 27.5 |
| 1988 | 23.9 | 16.3 | 31.0 |
| 1989 | 22.5 | 15.9 | 32.1 |
| 1990 | 23.4 | 16.4 | 30.4 |
| 1991 | 24.3 | 17.1 | 28.1 |
| 1992 | 24.1 | 17.1 | 30.6 |
| 1993 | 22.7 | 14.9 | 27.6 |
| 1994 | 20.7 | 14.4 | 20.7 |
| 1995 | 17.9 | 15.1 | 20.6 |

${ }^{\text {an }}$ No data for 1952-1970.

Table 19. Attitudes of teal hunters toward dates for the September teal season in Illinois. Sample sizes are in parentheses.

Responses to the question,
"The dates for the 1995 teal season were September 9-17. How do you feel about using similar dates (September 7-15) for the 1996 teal season?"

Responses by Waterfowl Zones

| Responses by Waterfowl Zones |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $\frac{\text { North }}{(55)}$ | $\frac{\text { Central }}{(203)}$ | $\frac{\text { South }}{(60)}$ | $\frac{\text { Entire State }}{(323)}$ |  |
| $25 \%$ |  |  |  |  |
| 53 | $17 \%$ | $25 \%$ | $20 \%$ |  |
| 13 | 71 | 68 | 67 |  |
| 9 | 6 | 3 | 6 |  |
|  | 6 | 4 | 7 |  |

Responses by.Administrative Regions

|  | 1A | 1B | 2 | 3A | 3 B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (31) | (82) | (24) | (80) | (18) | (41) | (42) |
| Too early | 19\% | 16\% | 25\% | 20\% | 17\% | 15\% | 31\% |
| About right | 55 | 69 | 54 | 71 | 61 | 85 | 59 |
| Too late | 13 | 10 | 8 | 5 | 22 | 0 | 5 |
| No opinion | 13 | 5 | 13 | 4 | 0 | 0 | 5 |

Table 20. Attitudes of teal hunters toward zoning Illinois for September teal hunting (1995). Sample sizes are in parentheses.

Responses to the question,
"Are you supportive or unsupportive of the idea of dividing the state into zones for purposes of setting dates for the September teal season? For example, the season dates might be September 1-9 in the North Zone, 8-16 in the Central Zone, and 15-23 in the South Zone."

Responses by Waterfowl Zones

| $\frac{\text { North }}{(55)}$ | $\frac{\text { Central }}{(203)}$ | $\frac{\text { South }}{(61)}$ |  |
| :---: | :---: | :---: | :---: |
|  |  | Entire State <br> $(324)$ |  |
| $51 \%$ | $69 \%$ | $57 \%$ | $63 \%$ |
| 18 | 9 | 18 | 13 |
| 31 | 22 | 25 | 24 |

Responses by Administrative Regions

|  | $\frac{1 A}{(31)}$ | $\frac{1 B}{(83)}$ | $\frac{2}{(24)}$ | $\frac{3 A}{(79)}$ | $\frac{3 B}{(18)}$ | $\frac{4}{(41)}$ | $\frac{5}{(43)}$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $48 \%$ | $66 \%$ | $63 \%$ | $67 \%$ | $72 \%$ | $56 \%$ | $65 \%$ |
| Supportive | 23 | 12 | 8 | 10 | 6 | 10 | 19 |  |
| Unsupportive | 29 | 22 | 29 | 23 | 22 | 34 | 16 |  |
| No opinion | 29 |  |  |  |  |  |  |  |

Table 21. Attitudes of duck hunters toward the dates for the regular duck season in Illinois. Sample sizes are in parentheses.

Responses to the question,
"The dates for the 1995 duck season were October 14-December 2 (North Zone), October 28-December 16 (Central Zone), and November 4-December 23 (South Zone). Assuming the season will be 50 days long again in 1996, what do you think about using similar dates (October 12-November 30, October 26-December 14, and November 2-December 21, respectively) in 1996?"

Responses by Waterfowl Zones

|  | Responses by Waterfowl Zones |  |  |
| :---: | :---: | :---: | :---: |
| $\frac{\text { North }}{(257)}$ | $\frac{\text { Central }}{(864)}$ | $\frac{\text { South }}{(307)}$ | $\frac{\text { Entire State }}{(1,434)}$ |
| $22 \%^{a}$ |  | $18 \%$ | $42 \%$ |
| 67 | 63 | 47 | $23 \%$ |
| 7 | 15 | 8 | 60 |
| 4 | 4 | 3 | 13 |
|  |  |  | 4 |

Table 22. Attitudes of duck hunters toward changing legal shooting time during the regular duck season in Illinois. Sample sizes are in parentheses.

Responses to the question,
"How do you feel about changing legal shooting time during the regular duck season from 1/2 hour before sunrise to sunrise?"

| Responses by Waterfowl Zones |  |  |  |
| :---: | :---: | :---: | :---: |
| $\frac{\text { North }}{(265)}$ | $\frac{\text { Central }}{(909)}$ | $\frac{\text { South }}{(300)}$ | $\frac{\text { Entire Sta }}{(1,487)}$ |
| $25 \%$ |  |  | $16 \%$ |
| 6 | 5 | 6 | $22 \%$ |
| 8 | 10 | 9 | 6 |
| 10 | 7 | 9 | 9 |
| 51 | 55 | 60 | 8 |
|  |  |  |  |


| Strongly |  |
| :--- | :--- |
| support | 1 |
|  | 2 |
|  | 3 |
|  | 4 |
| Strongly | 5 |
| oppose |  |

Responses by Administrative Regions

|  | Responses by Administrative Reqions |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\frac{1 A}{(109)}$ | $\frac{1 B}{(399)}$ | $\frac{2}{(198)}$ | $\frac{3 A}{(338)}$ | $\frac{3 B}{(68)}$ | $\frac{4}{(127)}$ | $\frac{5}{(235)}$ |
| Strongly |  | $25 \%$ | $28 \%$ | $25 \%$ | $18 \%$ | $27 \%$ | $21 \%$ | $15 \%$ |
| support | 1 | 2 | 8 | 5 | 4 | 5 | 3 | 6 |
|  | 3 | 8 | 11 | 10 | 8 | 7 | 9 | 6 |
|  | 4 | 14 | 6 | 6 | 7 | 9 | 9 | 9 |
| Strongly | 5 | 45 | 50 | 55 | 62 | 54 | 55 | 61 |
| Oppose |  |  |  |  |  |  |  |  |

Table. 23. Attitudes of waterfowl hunters toward having an early (September) Canada goose season in their county of residence (Illinois 1995). Sample sizes are in parentheses.

Responses to the question,
"The U.S. Fish and Wildlife Service has announced that Illinois (and other Mississippi Flyway states) may have an early (September) Canada goose hunting season in any and/or all counties in the state. To have this experimental season, the Department of Natural Resources must agree to (1) allow no more than 15 days of hunting, (2) begin the season no earlier than September 1 and end it no later than September 15, (3) allow no more than 5 Canada geese in the daily bag limit, and (4) monitor hunter activity and goose harvest in each county. The purpose of this early season is to increase hunting pressure on local (resident) Canada geese, which have increased to nuisance proportions in some areas. With these facts in mind, are you supportive or unsupportive of having an early (September) Canada goose hunting season in the counties listed below?"

Responses by Waterfowl Zones

| Responses by Waterfowl Zones |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| North | Central | $\frac{\text { South }}{(395)}$ | Entire State |  |
|  |  |  | $(1,712)$ |  |
| $82 \%$ | $66 \%$ | $38 \%$ | $65 \%$ |  |
| 9 | 21 | 45 | 21 |  |
| 9 | 13 | 17 | 14 |  |

Responses by Administrative Regions

|  | $\frac{1 A}{(89)}$ | $\frac{1 B}{(415)}$ | $\frac{2}{(333)}$ | $\frac{3 A}{(237)}$ | $\frac{3 B}{(131)}$ | $\frac{4}{(228)}$ | $\frac{5}{(203)}$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $72 \%$ |  | $64 \%$ |  | $88 \%$ |  | $64 \%$ |  |
|  | $74 \%$ | $55 \%$ | $35 \%$ |  |  |  |  |  |
| Supportive | $72 \%$ |  | 22 |  | 7 |  | 20 |  |
| Unsupportive | 13 | 15 | 5 |  | 16 |  | 11 | 30 |
| Undecided | 15 | 14 |  |  |  | 15 | 17 |  |

Table 24. Attitudes of waterfowl hunters toward having an early (September) Canada goose hunting season in the county where they goose hunt most (Illinois 1995). Sample sizes are in parentheses.

Responses to the question,
"The U.S. Fish and Wildlife Service has announced that Illinois (and other Mississippi Flyway states) may have an early (September) Canada goose hunting season in any and/or all counties in the state. To have this experimental season, the Department of Natural Resources must agree to (1) allow no more than 15 days of hunting, (2) begin the season no earlier than September 1 and end it no later than September 15, (3) allow no more than 5 Canada geese in the daily bag limit, and (4) monitor hunter activity and goose harvest in each county. The purpose of this early season is to increase hunting pressure on local (resident) Canada geese, which have increased to nuisance proportions in some areas. With these facts in mind, are you supportive or unsupportive of having an early (September) Canada goose hunting season in the counties listed below?"

Responses by Waterfowl Zones

|  | North | Central | $\frac{\text { South }}{(179)}$ | $\frac{\text { RLOZ }^{\text {a }}}{(471)}$ | $\frac{\text { SIOZ }^{\text {b }}}{(105)}$ | Entire State |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(135)$ | $(510)$ | $(1,182)$ |  |  |  |
| Supportive | $86 \%$ | $70 \%$ | $50 \%$ | $53 \%$ | $53 \%$ | $62 \%$ |
| Unsupportive | 7 | 23 | 36 | 33 | 33 | 26 |
| Undecided | 7 | 7 | 14 | 14 | 14 | 12 |

Responses by Administrative Regions

|  | 1A | 1B | 2 | 3A | 3B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (49) | $\frac{18}{(251)}$ | (165) | (100) | (47) | (71) | (72) |
| Supportive | 76\% | 71\% | 89\% | 62\% | 85\% | 52\% | 47\% |
| Unsupportive | 12 | 23 | 6 | 24 | 13 | 39 | 36 |
| Undecided | 12 | 6 | 5 | 14 | 2 | 9 | 17 |

${ }^{\text {an }}$ Rend Lake Quota Zone.
bSouthern Illinois Quota Zone.

Table 25. Attitudes of waterfowl hunters toward having an early (September) Canada goose hunting season in the county where they duck hunt most (Illinois 1995). Sample sizes are in parentheses.

Responses to the question,
"The U.S. Fish and Wildlife Service has announced that Illinois (and other Mississippi Flyway states) may have an early (September) Canada goose hunting season in any and/or all counties in the state. To have this experimental season, the Department of Natural Resources must agree to (1) allow no more than 15 days of hunting, (2) begin the season no earlier than September 1 and end it no later than September 15, (3) allow no more than 5 Canada geese in the daily bag limit, and (4) monitor hunter activity and goose harvest in each county. The purpose of this early season is to increase hunting pressure on local (resident) Canada geese, which have increased to nuisance proportions in some areas. With these facts in mind, are you supportive or unsupportive of having an early (September) Canada goose hunting season in the counties listed below?."

Responses by Waterfowl Zones

| Responses by Waterfowl Zones |  |  |  |
| :---: | :---: | :---: | :---: |
| $\frac{\text { North }}{(223)}$ | $\frac{\text { Central }}{(775)}$ | $\frac{\text { South }}{(257)}$ | $\frac{\text { Entire State }}{(1,265)}$ |
| $79 \%$ |  | $64 \%$ | $45 \%$ |
| 10 | 22 | 37 | $62 \%$ |
| 11 | 14 | 18 | 23 |
|  |  |  | 15 |

Responses by Administrative Regions

Supportive Unsupportive Undecided

11

14

18 15

|  | Responses by Administrative Regions |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\frac{1 A}{(94)}$ | $\frac{1 B}{(337)}$ | $\frac{2}{(171)}$ | $\frac{3 A}{(286)}$ | $\frac{3 B}{(57)}$ | $\frac{4}{(110)}$ | $\frac{5}{(200)}$ |
| Supportive | 73\% | 62\% | 82\% | 59\% | 88\% | 56\% | 41\% |
| Unsupportive | 14 | 23 | 9 | 25 | 9 | 30 | 40 |
| Undecided | 13 | 15 | 9 | 16 | 3 | 14 | 19 |

Table 26. Attitudes of goose hunters toward the type of Canada goose harvest monitoring system preferred in the North and Central Waterfowl Zones in Illinois. Sample sizes are in parentheses.

Responses to the question;
"The Department of Natural Resources has implemented a Canada goose harvest monitoring system in 6 counties in the North Zone and 14 counties in the central zone. Goose hunters in these counties must daily report the Canada geese they harvest by calling a toll-free telephone number. When (and if) the quota of Canada geese is reached in the monitored counties in the North Zone, Canada goose hunting is closed throughout the North Zone. The same rule applies to the Central zone. With this system, both monitored and unmonitored counties can have a more liberal goose season, but the season must close in all counties if the quota is reached in the monitored counties. The alternative is to require all goose hunters in all counties in the North and Central zones to report their goose harvest via the toll-free telephone number. With this system, $100 \%$ of the Canada goose harvest is monitored, but it is more expensive and all goose hunters are impacted. Which type of Canada goose harvest monitoring system do you prefer?"

| North Zone |  |
| :---: | :---: |
| Quota <br> Counties <br> $(107)$ | All |
| Counties |  |
| $(194)$ |  |


| Central Zone |  |
| :--- | :--- |
| Quota <br> Counties | All |
| $(327)$ | $\frac{\text { Counties }}{(501)}$ |



Table 27. Attitudes of goose hunters toward the number of Canada geese that should be allowed in the daily bag limit in Illinois (199596). Sample sizes are in parentheses.

Responses to the question,
"What is your preference for the number of Canada geese that should be allowed in the daily bag limit during the regular goose hunting season in Illinois?"

Responses by Waterfowl Zones

|  | North | $\frac{\text { Central }}{(194)}$ | $\frac{\text { South }}{(513)}$ | $\frac{\text { RLOZ }^{\text {a }}}{(113)}$ |  | SIOZ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(139)$ | $\frac{\text { Entire State }}{(549)}$ | $(1,285)$ |  |  |  |
| 1 goose | $0 \%$ | $1 \%$ | $0 \%$ | $1 \%$ | $<1 \%$ | $<1 \%$ |
| 2 geese | 25 | 27 | 19 | 23 | 26 | 27 |
| 3 geese | 73 | 70 | 78 | 74 | 72 | 71 |
| No opinion | 2 | 2 | 3 | 2 | 2 | 2 |

Responses by Administrative Regions

|  | 1A | 1B | 2 | 3A | 3B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (56) | (275) | (177) | (108) | (50) | (75) | (79) |
| 1 goose | 0\% | 1\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| 2 geese | 34 | 31 | 22 | 20 | 26 | 27 | 15 |
| 3 geese | 64 | 66 | 76 | 78 | 72 | 72 | 81 |
| No opinion | 2 | 2 | 2 | 2 | 2 | 1 | 4 |

${ }^{4}$ Rend Lake Quota Zone.
bSouthern Illinois Quota Zone.

Table 28. Attitudes of waterfowl hunters toward the number of zones Illinois should use for setting the duck and goose hunting seasons. Sample sizes are in parentheses.

Responses to the question,
"Excluding goose quota zones, the State of Illinois was divided into three basic zones (North, Central, and South) for purposes of setting the dates for the regular duck and goose hunting seasons in 1995-96 (see map on first page). In your opinion, how many basic zones should Illinois use for setting these hunting seasons?"

Responses by Waterfowl Zones
Duck hunters
No zones
2
3
3
4
No opinion

| Responses by Waterfowl Zones |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| North | Central |  | South |  |
| $(258)$ | $(895)$ | $\frac{\text { Entire State }}{(298)}$ | $(1,464)$ |  |
| $2 \%$ | $3 \%$ | $1 \%$ | $2 \%$ |  |
| 10 | 12 | 7 | 10 |  |
| 69 | 69 | 71 | 70 |  |
| 7 | 6 | 14 | 8 |  |
| 12 | 10 | 7 | 10 |  |

Goose hunters No zones
2 "
$3 \quad 1$
4 N 7
No opinion
(196)
$7 \%$
10
62
14
(492) (113)

## 2\%

$(1,261)$
12
$71 \quad 10$
$71 \quad 66$
$\begin{array}{rr}11 & 10 \\ 4 & 11\end{array}$

Table 29. Attitudes of duck hunters toward the location of the boundaries that divide the North, Central, and South Waterfowl Zones in Illinois. . Sample sizes are in parentheses.

Responses to the question,
"What is your opinion of the boundaries that separated the three basic zones used for setting the 1995-96 duck and goose hunting seasons?"

| Zones and counties where hunted | Present location is about right | Should be moved further north | Should be moved further south | $\begin{gathered} \text { No } \\ \text { Opinion } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| North Zone/Central Zone Boundary |  |  |  |  |
| North Zone hunters |  |  |  |  |
| In boundary counties ${ }^{\text {a }}$ (56) | 70\% | 2\% | 16\% | 12\% |
| All counties (267) | 64 | 3 | 13 | 20 |
| Central zone hunters |  |  |  |  |
| In boundary counties ${ }^{\text {a }}$ (88) | 74 | 3 | 13 | 10 |
| All. counties (800) | 67 | 4 | 9 | 20 |
| Central Zone/South Zone Boundary |  |  |  |  |
|  |  |  |  |  |
| In boundary counties ${ }^{\text {b }}$ (43) | 60 | 23 | 5 | 12 |
| All counties (782) | 64 | 9 | 5 | 22 |
| South Zone hunters |  |  |  |  |
| In boundary counties ${ }^{\text {b }}$ (80) | 71 | 10 | 13 | 6 |
| All counties (289) | 62 | 10 | 13 | 15 |

${ }^{\text {a }}$ Cook, Will, Kendall, Grundy, LaSalle, Bureau, Henry, and Rock Island.
${ }^{\text {b }}$ Clark, Cumberland, Jasper, Effingham, Fayette, Bond, Madison, St. Clair, Monroe, and Randolph.

Table 30. Attitudes of goose hunters toward the location of the boundaries that divide the North, Central, and South Waterfowl Zones in Illinois. Sample sizes are in parentheses.

Responses to the question,
"What is your opinion of the boundaries that separated the three basic zones used for setting the 1995-96 duck and goose hunting seasons?"

| Zones and counties where hunted | Present location is about right | Should be moved further north | Should be moved further south | $\begin{gathered} \text { No } \\ \text { Opinion } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| North Zone/Central Zone Boundary |  |  |  |  |
|  |  |  |  |  |
| In boundary counties ${ }^{\text {a }}$ | $64 \%$ | 0\% | 25\% | $11 \%$ |
| All counties (158) | 63 | 3 | 13 | 21 |
| Central Zone hunters |  |  |  |  |
| In boundary counties ${ }^{\text {a }}$ (52) | 75 | 4 | 13 | 8 |
| All counties (391) | 68 | 3 | 11 | 18 |
| Central zone/South zone Boundary |  |  |  |  |
| Central Zone hunters |  |  |  |  |
| In boundary counties ${ }^{\text {b }}$ (16) | 63 | 25 | 0 | 12 |
| All counties (387) | 65 | 9 | 4 | 22 |
| South zone hunters |  |  |  |  |
| In boundary counties ${ }^{\text {b }}$ (50) | 66 | 8 | 16 | 10 |
| All counties (138) | 58 | 14 | 11 | 17 |

${ }^{\text {a }}$ Cook, Will, Kendall, Grundy, LaSalle, Bureau, Henry, and Rock Island.
${ }^{b}$ clark, Cumberland, Jasper, Effingham, Fayette, Shelby, Montgomery, Bond, Madison, St. Clair, Monroe, and Randolph.

Table 31. Attitudes of duck hunters toward federal baiting regulations (Illinois 1995). Sample sizes are in parentheses.

Responses to the question,
"The federal (U.S. Fish and Wildlife Service) baiting regulation prohibits the hunting of ducks and geese on areas where grain or feed (including seeds of natural vegetation) has been exposed, deposited, distributed, or scattered. Which of the following statements best describes your feelings or level of concern about this regulation?"

Responses by Administrative Regions
$\frac{1 A}{(107)} \frac{1 B}{(381)} \frac{2}{(202)} \frac{3 A}{(340)} \cdot \frac{3 B}{(66)} \quad \frac{4}{(125)} \quad \frac{5}{(236)}$

| Little concern | $24 \%$ | $18 \%$ | $22 \%$ | $17 \%$ | $14 \%$ | $22 \%$ | $23 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Some concern | 22 | 25 | 22 | 22 | 32 | 26 | 27 |
| Great concern | 34 | 32 | 35 | 47 | 42 | 32 | 30 |
| Unfamiliar |  | 20 | 25 | 21 | 14 | 12 | 20 |


|  | Responses by Type of Area |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Private |  |  |  |  |
|  | $\frac{\text { Public }}{(1,063)}$ | $\frac{\text { All Areas }}{(1,470)}$ |  |  |  |
| Little concern | $18 \%$ | $280)$ | $20 \%$ |  |  |
| Some concern | 25 | $24 \%$ | 24 |  |  |
| Great concern | 38 | 38 | 36 |  |  |
| Unfamiliar | 19 |  | 20 |  |  |

${ }^{\text {a }}$ Not familiar enough with the regulation to properly answer this question.
(Illinois 1995-96).
Responses by Administrative Regions and Zones
"The federal (U.S. Fish and Wildife Service) baiting regulation prohibits the hunting
Responses to the question,
The federal (U.S. Fish
of ducks and geese on has been exposed, deposited, distributed, or scattered. Which of the following ${ }^{\prime \prime}$ statements best d

|  | $\frac{1 A}{(56)}$ | $\frac{1 B}{(271)}$ | $\frac{2}{(183)}$ | $\frac{3 A}{\cdot(109)}$ | $\frac{3 B}{(47)}$ | $\frac{4}{(74)}$ | $\frac{5}{(80)}$ | $\frac{\mathrm{RLOZ}^{a}}{(143)}$ | $\frac{\text { SIOZ }^{b}}{(556)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Little concern | 14\% | $23 \%$ | 23\% | 14\% | 17\% | 24\% | 20\% | 20\% | 18\% |
| Some concern | 25 | 22 | 24 | 22 | 28 | 28 | 23 | 31 | 25 |
| Great concern | 45 | 35 | 31 | 51 | 38 | 33 | 41 | 33 | 36 |
| Unfamiliar ${ }^{\text {c }}$ | 16 | 20 | 22 | 13 | 17 | 15 | 16 | 16 | 21 |
|  |  | Responses by Type of Area |  |  |  |  |  |  |  |
|  |  |  | vate |  | Public |  | All Areas |  |  |
|  |  |  | ,133) |  | (535) |  | $(1,293)$ |  |  |
| Little concern |  |  | 19\% |  | 20\% |  | 20\% |  |  |
| Some concern |  |  | 25 |  | 26 |  | 25 |  |  |
| Great concern |  |  | 36 |  | 37 |  | 36 |  |  |
| Unfamiliar ${ }^{\text {c }}$ |  |  | 20 |  | 17 |  | 19 |  |  |

$$
{ }^{\text {a}} \text { Rend Lake Quota Zone. }
$$

bouthern Illinois Quota Zone.
${ }^{c}$ Not familiar enough with the regulation to properly answer this question.

Table 33. The ages of Illinois Migratory Stamp purchasers and waterfowl hunters in 1995-96. Sample sizes are in parentheses.

| Category | Stamp Purchasers |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Hunted Ducks | Hunted Geese | Hunted Ducks and/ or Geese | All Stamp Purchasers |
|  | $(1,519)$ | $(1,323)$ | $(1,978)$ | $(2,246)$ |
| Mean (years) | 40.4 | 39.8 | 40.8 | 41.5 |

Distribution (percentage of stamp purchasers)

| $\leq 15$ | years | $0.1{ }^{\text {a }}$ | $0.1{ }^{\text {a }}$ | $0.1{ }^{\text {a }}$ | 0.1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 16-20 | , | 2.9 | 3.1 | 2.7 | 2.7 |
| 21-30 | " | 17.2 | 17.6 | 15.6 | 15.6 |
| 31-40 | " | 27.4 | 27.3 | 26.1 | 26.1 |
| 41-50 | " | 27.1 | 27.5 | 27.2 | 27.2 |
| 51-60 | " | 15.0 | 16.1 | 16.1 | 16.1 |
| 61-64 | " | 3.6 | 2.6 | 3.9 | 3.9 |
| $\geq 65$ | * | 6.7 | 5.1 | 8.3 | 8.3 |

Uunior ( $\leq 15$ years) hunters were exempt from the Illinois Migratory Waterfowl Stamp. The proportionate numbers of juniors were estimated to equate to $8.5 \%$ (duck hunters), $8.7 \%$ (goose hunters), and $8.6 \%$ (all waterfowl hunters) of stamp-purchasing ( $\geq 16$ years) hunters (Anderson et al. 1996:3-4). If juniors are included in the age distribution, all of the percentages must be adjusted accordingly.

## INSTRUCTION

-To properly manage Illinois' waterfowl resources, the Department of Natural Resources needs information about waterfowl hunters, their hunting activities, and their opinions on selected issues.

Please answer the questions on the following pages for your waterfowl hunting activities during the 1995-96 season.

If you did not hunt waterfowl in Illinois during the 1995-96 season, answer the first three questions and return this form.

Report only your kill: DO NOT report the kill of others with whom you may have hunted.


Write in the number of days on which you hunted ducks and the number of days on which you hunted geese. Include your unsuccessful days.

If you hunted both ducks and geese at the same time, count the day toward your primary target -- that is, primarily ducks or primarily geese. DO NOT count the hunt as a day of duck hunting and also as a day of goose hunting.

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

Your responses are strictly confidential and will never be associated with your name. Since you are part of a small, randomly selected group, your participation and your opinions are very important.

Your comments are welcome but please write them on a separate sheet of paper to receive proper attention

When completed, insert questionnaire into the self-addressed envelope and mail. POSTAGE IS PREPAID

Thank you for your cooperation
Figure 1. The questionnaire used for the 1995-96 Illinois Waterfowl Hunter Survey.

## GENERAL INFORMATION


2. How many 1995 Illinois Migratory Waterfowl Stamps did you purchase for your personal use (do not include Federal Stamps)
3. Did you hunt waterfowl (ducks, geese, and/or coots) in Illinois during the 1995-96 season? (circle number for appropriate answer)

$$
\text { Yes..... } 1 \text { No..... } 2
$$

## SEPTEMBER TEAL SEASON

4. How many different days did you hunt teal during the September teal season in Illinois in 1995?
5. In which county did you hunt teal most in Illinois in 1995?... $\qquad$
6. How many teal did you personally harvest (kill and retrieve) during the September teal season in Illinois in 1995?.

## REGULAR DUCK SEASON

7. How many different days did you hunt ducks during the regular duck season in Illinois in 1995? (NOIE: If you killed all your ducks coincidental to goose hunting, leave this space blank)
8. In which county or counties did you hunt ducks during the regular duck season in Illinois in 1995?....... County hunted most $\qquad$
Second most.
Third most.
t. . . . . . . $\qquad$
9. List the number of ducks and coots you personally harvested during the regular duck season in Illinois in 1995. DO NOT include birds killed in other states or countries.

| I personally killed <br> and retrieved: | I knocked down in sight <br> but could not retrieve: |
| :--- | :---: |
| Mallards <br> Wood Ducks <br> Other Ducks <br> Coots | Ducks |

Figure 1. Continued - page 2.
10. Did the "other ducks" you harvested include any canvasbacks? (circle number for appropriate number)

Yes.....I No..... 2
10a. If "Yes", how many?.... $\qquad$

## EARLY CANADA GOOSE SEASON IN NORITEASTERN IITINOIS

NOTE: This special experimental season took place on September 1-14 in the following 9 counties only: Cook, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, and Will.
11. Did you hunt Canada geese during the early Canada goose season in northeastern Illinois in 1995?

$$
\text { Yes.....1 No..... } 2
$$

12. If "Yes", a. How many different days did you hunt?
b. How many Canada geese did you personally harvest?
c. In which county did you hunt most? (circle one)

Cook DuPage Grundy Kane Kankakee
Kendall Lake McHenry Will

## REGUTAR GOOSE SEASON

13. List the number of days you hunted geese and the number of geese you personally harvested during the regular goose season in Illinois in 1995-96. DO NOT include geese listed in question 12b above. (NOTE: If you killed all your geese coincidental to duck hunting, leave the number of days blank)

14. If you goose hunted in the Southern Illinois Quota Zone, how many days did you hunt and how many geese did you harvest in each county?
Alexander....... Days Canada Geese other Geese
Union.........
Jackson.......
Williamson.....

Figure 1. Continued - page 3.
15. If you goose hunted in the Rend Lake quota Zone, how many days did you hunt and how many geese did you harvest in each county?

16. How many geese did you knock down in sight but neither you nor anyone else could retrieve in Illinois in 1995-96?. .......................
17. Did you (or do you plan to) hunt snow geese during the late (Feb. 10-27 in South Zone and Feb. 26-Mar. 10 in Central Zone) season in Illinois?

$$
\text { Yes..... } 1 \text { No..... } 2 \text { Undecided..... } 3
$$

## YOUR OPINIONS

18. The dates for the 1995 teal season were September 9-17. How do you feel about using similar dates (September 7-15) for the 1996 teal season?

$$
\text { Too early... } 1 \text { About right... } 2 \text { Too late... } 3 \text { No opinion... } 4
$$

19. Are you supportive or unsupportive of the idea of dividing the state into zones for purposes of setting dates for the September teal season? For example, the season dates might be September 1-9 in the North Zone, 8-16 in the central Zone, and 15-23 in the South Zone. (circle number for appropriate answer)

$$
\text { Supportive..... } 1 \text { Unsupportive..... } 2 \quad \text { Undecided..... } 3
$$

20. The dates for the 1995 duck season were October 14-December 2 (North Zone), October 28-December 16 (Central Zone), and November 4-December 23 (South zone). Assuming the season will be 50 days long again in 1996, what do you think about using similar dates (October 12-November 30, October 26December 14, and November 2-December 21, respectively) in 1996? (circle appropriate answer for the zone you hunt most)

|  | Too Early | About Right | Too Late | No opinion |
| :---: | :---: | :---: | :---: | :---: |
| North Zone. | 1. | 2 | 3. | . 4 |
| Central Zon | .....1. | 2 | . 3 | 4 |
| South Zone. | 1. | 2 | . 3. | . . . . 4 |

21. How do you feel about changing legal shooting time during the regular duck season from $1 / 2$ hour before sunrise to sunrise? (circle number for appropriate answer: $1=$ strongly support to $5=$ strongly oppose)

| Strongly | Strongly |
| :--- | :--- |
| support | oppose |


| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

Figure 1. Continued - page 4.
22. The U.S. Fish and Wildlife Service has announced that Illinois (and other Mississippi Flyway states) may have an early (September) Canada goose hunting season in any and/or all counties in the state. To have this experimental season, the Department of Natural Resources must agree to (1) allow no more than 15 days of hunting, (2) begin the season no earlier than September 1 and end it no later than September 15, (3) allow no more than 5 Canada geese in the daily bag limit, and (4) monitor hunter activity and goose harvest in each county. The purpose of this early season is to increase hunting pressure on local (resident) Canada geese, which have increased to nuisance proportions in some areas. With these facts in mind, are you supportive or unsupportive of having an early (September) Canada goose hunting season in the counties listed below? (circle appropriate answer for all that apply)

Supportive Unsupportive Undecided

23. The Department of Natural Resources has implemented a Canada goose harvest monitoring system in 6 counties in the North Zone and 14 counties in the Central zone. Goose hunters in these counties must daily report the canada geese they harvest by calling a toll-free telephone number. When (and if) the quota of Canada geese is reached in the monitored counties in the North Zone, Canada goose hunting is closed throughout the North Zone. The same rule applies to the Central Zone. With this system, both monitored and unmonitored counties can have a more liberal goose season, but the season must close in all counties if the quota is reached in the monitored counties. The alternative is to require all goose hunters in all counties in the North and Central zones to report their goose harvest via the tollfree telephone number. With this system, $100 \%$ of the Canada goose harvest is monitored, but it is more expensive and all goose hunters are impacted. Which type of Canada goose harvest monitoring system do you prefer? (circle number for appropriate answer)

> *The monitoring system used in 1995-96, which requires goose hunters in some counties in the North and Central zones to daily report their Canada goose harvest. When the harvest quota is reached in these counties, the canada goose season is closed throughout the zone...........

> *A monitoring system which required all goose hunters in all counties in the North and Central zones to report their Canada goose harvest. When the harvest quota is reached, the canada goose season is closed throughout the zone. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
*No opinion.
24. What is your preference for the number of canada geese that should be allowed in the daily bag limit during the regular goose hunting season in Illinois? (circle number for appropriate answer)
25. Excluding goose quota zones, the State of Illinois was divided into three basic zones (North, Central, and South) for purposes of setting the dates for the regular duck and goose hunting seasons in 1995-96 (see map on first page). In your opinion, how many basic zones should Illinois use for setting these hunting seasons? (circle number for appropriate answers for ducks and geese)

None 2 Zones 3 Zones 4 Zones No opinion
For ducks....1.........2...........3...........4............... 5
For geese....1.........2....................................... 5
26. What is your opinion of the boundaries that separated the three basic zones used for setting the 1995-96 duck and goose hunting seasons? (circle number for appropriate answer for each boundary)

|  | Present location is about right | Should be moved further north | Should be moved further south | No Opinion |
| :---: | :---: | :---: | :---: | :---: |
| Boundary between North and Central Zones.... |  | -.....2...... | 3. |  |
| Boundary between Central and South Zones. |  | .2..... | ....3.. |  |

26a. In which zone did you hunt ducks and/or geese most during the 1995-96 season? (circle number for appropriate answers for ducks and geese)

Ducks: North Zone...1 Central Zone... 2 South Zone... 3
Geese: North Zone... 1 Central zone... 2 South Zone... 3
27. The federal (U.S. Fish and Wildlife Service) baiting regulation prohibits the hunting of ducks and geese on areas where grain or feed (including seeds of natural vegetation) has been exposed, deposited, distributed, or scattered. Which of the following statements best describes your feelings or level of concern about this regulation? (circle number for appropriate answer)

$$
\begin{aligned}
& \text { *The federal baiting regulation is of little concern to me....... } 1 \\
& \text { *The federal baiting regulation is of some concern to me......... } \\
& \text { *The federal baiting regulation is of great concern to me....... } 3 \\
& \text { *I am not familiar enough with the federal baiting regulation } \\
& \text { to properly answer this question. . . . . . . . . . . . . . . . . . . . . . . } 4
\end{aligned}
$$

27a. Did you hunt ducks and/or geese on private areas, public areas, or both private and public areas? (circle appropriate answers for ducks and geese)
$\begin{array}{lll}\text { Ducks: Private...1 } & \text { Public...2. } & \text { Both private and public... } 3 \\ \text { Geese: } & \text { Private...1 } & \text { Public...2 }\end{array}$
28. Did you use bismuth shot for any of your duck and/or goose hunting in Illinois during the 1995-96 season? (circle appropriate answers for ducks and geese)

| For ducks: | Yes.....1 | No..... 2 |
| :--- | :--- | :--- |
| For geese: | Yes.....1 | No.... 2 |

Thank you for your cooperation
POSTAGE IS PREPAID
Figure 1. Continued - page 6.

## DEAR WATERFOWL HUNTER:

The Department of Natural Resources needs your cooperation and assistance to determine the harvest of waterfowl in Illinois during the approaching hunting season. Please keep an accurate record of the number of days you hunt, the number and kinds of waterfowl you harvest, and the number of waterfowl you knock down but cannot retrieve.

DO NOT MAIL THIS CARD
After the 1995-96 hunting season (in late January), we will send you a questionaire to fill out and return to us. This information will assist the Department of Natural Resources in the proper management of our waterfowl resources. Thank you for your cooperation.

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| MY PERSONAL HUNTING RECORD (1995-96) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date of | 1 Shot | Number I Killed and Retrieved |  |  | Number I Knocked Down, but Lost |  |  |
| Hunt | Nothing | Ducks | Geese | Coots | Ducks | Geese | Coots |
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Season Totals

Figure 2. The pre-season notice that was sent to persons on the mailing list for the 1995-96 Illinois Waterfowl Hunter Survey.

# ILLINOIS <br> DEPARTMENT OF NATURAL RESOURCES 

## Dear Fellow Sportsman:

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

The information supplied by you and other selected hunters is vital to the management of our waterfowl resources: (1) to safeguard waterfowl populations, (2) to grant maximum waterfowl hunting opportunity to license holders, and (3) to maintain an attractive level of hunter success.

The information you provide is used to better understand the welfare of the various waterfowl populations. These statistics include distribution of total harvest, number of hunters, and hunting success.

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

Please take a few minutes and 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.
Yours for better waterfowling.


JMV:WLA:1c
Enclosure
W1

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

## Dear Fellow Sportsman:

Recently we mailed you a Waterfowl Hunting Questionnaire, and requested that you fill out and return it as soon as possible. We have not received your form at this time -- perhaps because you have misplaced the questionnaire or haven't found time to complete it and return it to us.

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 waterfowl hunters being sampled will be of great value to the Department of Natural Resources in better directing the management of Illinois' waterfowl resources.

Please fill out the questionnaire completely and return it even if you did not hunt waterfowl, or were not successful.

Postage is prepaid for returning the completed questionnaire. Your prompt attention will be sincerely appreciated. .

Thank ẎOu.


JMV:WLA: lC
Enclosure W2

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

## Dear Fellow Sportsman:

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

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 waterfowl or had an unsuccessful season.

Postage is prepaid for returning the questionnaire. Just fill it out and drop in the mail. Please help us complete this survey by sending your questionnaire now. Your prompt attention will be greatly appreciated.

Thank You.


JMV : WLA: IC
Enclosure
W3

Figure 5. The letter that accompanied the third mailing of the questionnaire.
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 BAG LIMIT
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 ol Bond．Ellinghem and Fayetis countios．


 fines of up to $\$ 500$ and could result in revocation of your hunting license for up to five years．This permit and permit number are not transferable．It is unlawful to be in possession of another person＇s goose permit while hunting Canada geese．

Northern Illinoie Quota Zone：DuPage，Kane，Lake，McHenry and those
Central Illinoie Quota Zone：Calhoun，Cass，Futton，Jersey，Knox，Mason，

| MONTH | 110 | 110 |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|  | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
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| Date of Birth（Month，Day，Year） |
| Signature of Permittee |

 Signature of Permittee




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| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| C | C | C | C | C | C | C | C | C | C | C | C | C | C | C |

Morgan，Peoria，Pike，Tazewell，Woodford，and those portions of LaSalle，
Will and Grundy Counties south of l－80．

This permit is valid only when all information requested on both sides is completed with signature affixed．

Have this card handy when calling．
＂you have problems with this system，please call the Division of Widlilie Resources
at（217）782－6384 from 8：30 a．m．$-5: 00$ p．m．，Monday－Friday． 1995 ILLINOIS WATERFOWL STAMP NO． 013896 III． You must also report each Canada goose killed by calling toll free：1－800－WET－LAND September 30 in the Northem and Central llinois Quota Zones you must vaidiale
below by sliting or punching the zone（ $C=$ Central，$N=N$ Northem）and dale of kill．Sllt or punch one date for each Canada goose laken on that date． $\frac{\text {（938－5263）（TDD accessible）from a touch tone phone within } 24 \text { hours of the }}{\text { MONTH }}$ $\frac{\text {（938－5263）（TDD accessible）from a touch tone phone within } 24 \text { hours of }}{\text { MONTH }}$
IIVO HINOW

Immediately upon laking possession of a Canada goose during seasons starting after Immediately upon laking possession of a Canada goose during seasons slaring ater
September 30 in the Northern and Central llinois Quota Zones you must validate punch one date for each Canada goose taken on that date．

IL 422－0870
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Figure 8. The Illinois Department of Natural Resources Administrative Regions.

## Appendix A

Harvests of Canada geese by county, zone, and administrative region in Illinois during the 1993-1995 season.

Table A1. Harvest of Canada geese by waterfowl zone and county during the regular goose season in Illinois in 1993-1995. Due to rounding to whole numbers, some small discrepancies may occur in these data.

| County | 1993 | 1994 | 1995 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| North Waterfowl Zone |  |  |  |  |
| Boone | 55 | 64 | 0 | 40 |
| Bureau ${ }^{\text {a }}$ | 247 | 432 | 425 | 368 |
| Carroll | 137 | 206 | 451 | 265 |
| Cook | 479 | 271 | 1,070 | 607 |
| DeKalb | 96 | 77 | 116 | 96 |
| Dupage | 2,765 | 541 | 1,018 | 1,441 |
| JoDaviess | 110 | 26 | 39 | 58 |
| Kane | 1,820 | 1,585 | 1,108 | 1,504 |
| Kendall | 96 | 206 | 387 | 230 |
| LaSalle ${ }^{\text {b }}$ | 292 | 120 | 150 | 187 |
| Lake | 7,228 | 1,379 | 1,791 | 3,466 |
| Lee | 260 | 52 | 296 | 203 |
| McHenry | 3,738 | 2,591 | 1,418 | 2,582 |
| Ogle | 68 | 39 | 129 | 79 |
| Rock Island ${ }^{\text {e }}$ | 165 | 181 | 206 | 184 |
| Stephenson | 41 | 168 | 52 | 87 |
| Whiteside | 370 | 412 | 348 | 377 |
| Will ${ }^{\text {b }}$ | 703 | 232 | 417 | 451 |
| Winnebago | 643 | 799 | 2,113 | 1,185 |
| North Zone Total | 19,313 | 9,381 | 11,534 | 13,409 |
| Central Waterfowl zone |  |  |  |  |
| Adams | 110 | 180 | 528 | 273 |
| Brown | 137 | 39 | 0 | 59 |
| Bureau ${ }^{\text {a }}$ | 247 | 432 | 425 | 368 |
| Calhoun | 903 | 296 | 309 | 503 |
| Cass | 68 | 322 | 309 | 233 |
| Champaign | 27 | 258 | 0 | 95 |
| Christian | 96 | 477 | 64 | 212 |
| Clark ${ }^{\text {c }}$ | 55 | 0 | 20. | 25 |
| Coles | 96 | 64 | 13 | 58 |
| Cumberland | 0 | 0 | 0 | 0 |
| DeWitt | 439 | 142 | 193 | 258 |
| Douglas | 14 | 26 | 39 | 26 |
| Edgar | 0 | 39 | 0 | 13 |
| Ford | 27 | 103 | 116 | 82 |
| Fulton | 7,844 | 5,026 | 8,802 | 7,224 |
| Greene | 82 | 90 | 245 | 139 |
| Grundy | 767 | 245 | 335 | 449 |
| Hancock | 41 | 142 | 0 | 61 |
| Henderson | 397 | 335 | 296 | 343 |
| Henry | 589 | 516 | 464 | 523 |

Table A1 - continued.

Table Al. - Continued page 2.

| County | 1993 | 1994 | 1995 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Central Waterfowl zone (continued) |  |  |  |  |
| Iroquois | 27 | 0 | 26 | 18 |
| Jersey | 438 | 129 | 219 | 262 |
| Kankakee | 397 | 528 | 464 | 463 |
| Knox | 1,548 | 992 | 670 | 1,070 |
| LaSalle ${ }^{\text {b }}$ | 584 | 240 | 300 | 375 |
| Livingston | 151 | 516 | 1,031 | 566 |
| Logan | 14 | 90 | 26 | 43 |
| Macon | 0 | 129 | 39 | 56 |
| Macoupin | 178 | 593 | 284 | 352 |
| Madison | 520 | 309 | 619 | 483 |
| Marshall | 123 | 129 | 1,005 | 419 |
| Mason | 82 | 554 | 1,058 | 565 |
| McDonough | 0 | 26 | 541 | 189 |
| McLean | 96 | 219 | 309 | 208 |
| Menard | 0 | 180 | 39 | 73 |
| Mercer | 164 | 528 | 77 | 256 |
| Monroe | 110 | 129 | 348 | 196 |
| Montgomery | 110 | 26 | 77 | 71 |
| Morgan | 643 | 271 | 657 | 523 |
| Moultrie | 41 | 103 | 206 | 117 |
| Peoria | 369 | 516 | 889 | 591 |
| Piatt | 68 | 52 | 0 | 40 |
| Pike | 630 | 258 | 567 | 485 |
| Putnam | 27 | 155 | 52 | 78 |
| Rock Island ${ }^{\text {a }}$ | 165 | 181 | 206 | 184 |
| Sangamon | 96 | 232 | 219 | 182 |
| Schuyler | 82 | 13 | 283 | 126 |
| Scott | 0 | 206 | 90 | 99 |
| Shelby | 27 | 0 | 451 | 159 |
| St. Clair ${ }^{\text {c }}$ | 870 | 780 | 1,218 | 956 |
| Stark | 288 | 77 | 168 | 178 |
| Tazewell | 411 | 838 | 503 | 584 |
| Vermilion | 41 | 450 | 747 | 413 |
| Warren | 0 | 129 | 77 | 69 |
| Will ${ }^{\text {b }}$ | 1,406 | 464 | 834 | 901 |
| Woodford | 972 | 309 | 232 | 504 |
| Central zone Total | 22,617 | 19,083 | 26,689 | 22,796 |

Table Al - continued.

Table A1. - Continued page 3.

| County | 1993 | 1994 | 1995 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| South Waterfowl Zone |  |  |  |  |
| Bond | 0 | 168 | 0 | 56 |
| Clark ${ }^{\text {c }}$ | 55 | 0 | 20 | 25 |
| Clay | 0 | 0 | 103 | 34 |
| Clinton | 1,109 | 387 | 335 | 610 |
| Crawford | 0 | 26 | 0 | 9 |
| Edwards | 0 | 0 | 39 | 13 |
| Effingham | 0 | 0 | 0 | 0 |
| Fayette | 685 | 2,126 | 1,418 | 1,410 |
| Gallatin | 0 | 26 | 0 | 9 |
| Hamilton | 0 | 13 | 0 | 4 |
| Hardin | 0 | 0 | 0 | 0 |
| Jasper | 315 | 0 | 644 | 320 |
| Johnson | 41 | 0 | 580 | 207 |
| Lawrence | 41 | 90 | 0 | 44 |
| Marion | 219 | 52 | 206 | 159 |
| Massac | 260 | 52 | 387 | 233 |
| Perry | 465 | 1,378 | 3,183 | 1,675 |
| Pope. | 164 | 0 | 77 | 80 |
| Pulaski | 233 | 206 | 451 | 297 |
| Randolph | 862 | 438 | 1,508 | 936 |
| Richland | 0 | 168 | 64 | 77 |
| Saline | 178 | 528 | 361 | 356 |
| St. Clair ${ }^{\text {c }}$ | 870 | 780 | 1,218 | 956 |
| Wabash | 14 | 52 | 155 | 74 |
| Washington | 14 | 52 | 619 | 228 |
| Wayne | 123 | 180 | 1,070 | 458 |
| White | 0 | 0 | 13 | 4 |
| Subtotal | 5,648 | 6,722 | 12,451 | 8,274 |
| Rend Lake Quota Zone | 8,927 | 6,573 | 5,877 | 7,126 |
| Southern IL Quota Zone | 36,679 | 25,956 | 35,414 | 32,683 |
| South Zone Total | 51,254 | 39,251 | 53,742 | 48,082 |
| Unknown | 177 | 75 | 513 | 255 |
| Statewide Total | 93,361 | 67,790 | 92,478 | 84,543 |

50\% in North Zone and $50 \%$ in Central Zone.
$b_{33 \%}$ in North Zone and 67\% in Central zone.
${ }^{c} 50 \%$ in Central zone and $50 \%$ in South zone.

Table A2. Harvest of Canada geese by administrative region and county during the regular goose season in Illinois in 1993-1995. Due to rounding to whole numbers, some small discrepancies may occur in these data.

| County | 1993 | 1994 | 1995 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Region 1A |  |  |  |  |
| Boone | 55 | 64 | 0 | 40 |
| Carroll | 137 | 206 | 451 | 265 |
| DeKalb | 96 | 77 | 116 | 96 |
| Jo Daviess | 110 | 26 | 39 | 58 |
| Lee | 260 | 52 | 296 | 203 |
| Ogle | 68 | 39 | 129 | 79 |
| Stephenson | 41 | 168 | 52 | 87 |
| Whiteside | 370 | 412 | 348 | 377 |
| Winnebago | 643 | 799 | 2,113 | 1,185 |
| Region 1A Total | 1,780 | 1,843 | 3,544 | 2,389 |
| Administrative Region 1B |  |  |  |  |
| Bureau | 494 | 864 | 850 | 736 |
| Fulton | 7,844 | 5,026 | 8,802 | 7,224 |
| Henderson | 397 | 335 | 296 | 343 |
| Henry | 589 | 516 | 464 | 523 |
| Knox | 1,548 | 992 | 670 | 1,070 |
| LaSalle | 876 | 360 | 450 | 563 |
| Marshall | 123 | 129 | 1,005 | 419 |
| McDonough | 0 | 26 | 541 | 189 |
| Mercer | 164 | 528 | 77 | 256 |
| Peoria | 369 | 516 | 889 | 591 |
| Putnam | 27 | 155 | 52 | 78 |
| Rock Island | 330 | 362 | 412 | 367 |
| Stark | 288 | 77 | 168 | 178 |
| Tazewell | 411 | 838 | 503 | 584 |
| Warren | 0 | 129 | 77 | 69 |
| Woodford | 972 | 309 | 232 | 504 |
| Region 1B Total | 14,432 | 11,162 | 15,488 | 13,694 |
| Administrative Region 2 |  |  |  |  |
| Cook | 479 | 271 | 1,070 | 607 |
| DuPage | 2,765 | 541 | 1,018 | 1,441 |
| Grundy | 767 | 245 | 335 | 449 |
| Kane | 1,820 | 1,585 | 1,108 | 1,504 |
| Kankakee | 397 | 528 | 464 | 463 |
| Kendall | 96 | 206 | 387 | 230 |
| Lake | 7,228 | 1,379 | 1,791 | 3,466 |
| McHenry | 3,738 | 2,591 | 1,418 | 2,582 |
| Will | 2,109 | 696 | 1,251 | 1,352 |
| Region 2 Total | 19,399 | 8,042 | 8,842 | 12,094 |

Table A2. - Continued page 2.

| County | 1993 | 1994 | 1995 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Region 3A |  |  |  |  |
| Adams | 110 | 180 | 528 | 273 |
| Brown | 137 | 39 | 0 | 59 |
| Calhoun | 903 | 296 | 309 | 503 |
| Cass | 68 | 322 | 309 | 233 |
| Christian | 96 | 477 | 64 | 212 |
| Greene | 82 | 90 | 245 | 139 |
| Hancock | 41 | 142 | 0 | 61 |
| Jersey | 438 | 129 | 219 | 262 |
| Logan | 14 | 90 | 26 | 43 |
| Macoupin | 178 | 593 | 284 | 352 |
| Mason | 82 | 554 | 1,058 | 565 |
| Menard | 0 | 180 | 39 | 73 |
| Montgomery | 110 | 26 | 77 | 71 |
| Morgan | 643 | 271 | 657 | 523 |
| Pike | 630 | 258 | 567 | 485 |
| Sangamon | 96 | 232 | 219 | 182 |
| Schuyler | 82 | 13 | 283 | 126 |
| Scott | 0 | 206 | 90 | 99 |
| Region 3A Total | 3,710 | 4,098 | 4,974 | 4,261 |
| Administrative Region 3B |  |  |  |  |
| Champaign | 27 110 | 258 | 0 40 | 95 |
| Clark | 110 | 0 | 40 | 50 |
| Coles | 96 | 64 | 13 | 58 |
| Cumberland | 0 | 0 | 0 | 0 |
| DeWitt | 439 | 142 | 193 | 258 |
| Douglas | 14 | 26 | 39 | 26 |
| Edgar | 0 | 39 | 0 | 13 |
| Ford | 27 | 103 | 116 | 82 |
| Iroquois | 27 | 0 | 26 | 18 |
| Livingston | 151 | 516 | 1,031 | 566 |
| Macon | 0 | 129 | 39 | 56 |
| McLean | 96 | 219 | 309 | 208 |
| Moultrie | 41 | 103 | 206 | 117 |
| Piatt | 68 | 52 | 0 | 40 |
| Shelby | 27 | 0 | 451 | 159 |
| Vermilion | 41 | 450 | 747 | 413 |
| Region 3B Total | 1,164 | 2,101 | 3,210 | 2,158 |

Table A2 - continued.

Table A2. - Continued page 3.

| County | 1993 | 1994 | 1995 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Region 4 |  |  |  |  |
| Bond | 0 | 168 | 0 | 56 |
| Clinton | 1,109 | 387 | 335 | 610 |
| Madison | 520 | 309 | 619 | 483 |
| Monroe | 110 | 129 | 348 | 196 |
| Randolph | 862 | 438 | 1,508 | 936. |
| St. Clair | 1,740 | 1,560 | 2,436 | 1,912 |
| Washington | 14 | 52 | 619 | 228 |
| Region 4 Total | 4,355 | 3,043 | 5,865 | 4,421 |
| Administrative Region 5 |  |  |  |  |
| Clay | 0 | 0 | 103 | 34 |
| Crawford | 0 | 26 | 0 | 9 |
| Edwards | 0 | 0 | 39 | 13 |
| Effingham | 0 | 0 | 0 | 0 |
| Fayette | 685 | 2,126 | 1,418 | 1,410 |
| Gallatin | 0 | 26 | 0 | 9 |
| Hamilton | 0 | 13 | 0 | 4 |
| Hardin | 0 | 0 | 0 | 0 |
| Jasper | 315 | 0 | 644 | 320 |
| Johnson | 41 | 0 | 580 | 207 |
| Lawrence | 41 | 90 | 0 | 44 |
| Marion | 219 | 52 | 206 | 159 |
| Massac | 260 | 52 | 387 | 233 |
| Perry | 465 | 1,378 | 3,183 | 1,675 |
| Pope | 164 | 0 | 77 | 80 |
| Pulaski | 233 | 206 | 451 | 297 |
| Richland | 0 | 168 | 64 | 77 |
| Saline | 178 | 528 | 361 | 356 |
| Wabash | 14 | 52 | 155 | 74 |
| Wayne | 123 | 180 | 1,070 | 458 |
| White | 0 | 0 | 13 | 4 |
| Subtotal | 2,738 | 4,897 | 8,751 | 5,462 |
| Rend Lake Quota Zone | 8,927 | 6,573 | 5,877 | 7,126 |
| Southern IL Quota Zone | 36,679 | 25,956 | 35,414 | 32,683 |
| Region 5 Total | 48,344 | 37,426 | 50,041 | 45,270 |
| Unknown | 177 | 75 | 513 | 255 |
| Statewide Total | 93,361 | 67,790 | 92,478 | 84,543 |


[^0]:    Illinois Department of Natural Resources

