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ILLINOIS WATERFOWL HARVEST, HUNTER ACTIVITY, AND ATTITUDES TOWARD SEPTEMBER CANADA GOOSE SEASON, CANADA GOOSE HARVEST MONITORING SYSTEM, AND DATES FOR HUNTING SEASONS, 1997-98

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Abstract: The questionnaire for the 1997-98 Illinois Waterfowl Hunter Survey was sent to 3,856 randomly selected individuals who had registered with the National Migratory Bird Harvest Information Program in Illinois in 1997. When registering, all of these people indicated they had hunted waterfowl (ducks, geese, and/or coots) during the previous (1996-97) season. A total of 2,708 usable questionnaires was returned for a response rate of $70 \%$. The respondents included 1,633 individuals who had purchased an Illinois Migratory Waterfowl Stamp in 1997, of which 1,451 (89\%) hunted waterfowl in Illinois during the 1997-98 season. An estimated 54,715 hunters ( $4 \%$ less than in 1996) expended 881,030 days afield (5\% more than in 1996) and harvested 401,236 waterfowl ( $7 \%$ more than in 1996). The ratio of duck hunters to goose hunters was 1.27:1 in 1997-98. During the September teal season, 12,819 hunters spent 32,179 days afield and harvested 22,005 teal (90\% more than in 1996). On Youth Waterfowl Hunting Day, 3,163 adults took 4,322 youths afield, and 3,451 ducks and 387 coots were harvested. During the regular duck season ( 60 days), 42,587 hunters expended 514,934 days afield and harvested 291,161 ducks ( $2 \%$ more than in 1996) and 3,935 coots. During the early September Canada goose season-held in the Northeast, North, and Central Zones--11, 765 hunters spent 34,988 days afield and harvested 11,443 Canada geese. During the regular goose season, 33,498 hunters devoted 295,107 days afield to harvest 61,282 Canada geese ( $7 \%$ less than in 1996), 5,941 snow/blue geese, and 1,631 other geese. The Canada goose harvest included 22,010 taken in the Southern Illinois Quota Zone, 2,118 taken in the Rend Lake Quota Zone, 6,720 taken in North Quota Zone Counties, and 11,443 taken in Central Quota Zone Counties, which collectively accounted for $69 \%$ of the statewide harvest. The estimated Canada goose harvest in the North and Central Quota Zone Counties was $15 \%$ less than the harvest recorded for these counties via the phone-in monitoring system. Among goose hunters, 5,628 (16.8\%) hunted (or planned to

[^0]hunt) snow/blue geese during the late (to March 10) season in Illinois. The harvests of Canada geese and snow/blue geese are presented by county/zone/administrative region in Appendix A.

Among duck hunters who expressed opinions, majorities (>50\%) thought the dates for the Youth Waterfowl Hunting Day and the regular duck season were about right; a plurality favored a Thursday opening/Sunday closing for the regular duck season. Majorities of waterfowl hunters liked the early September Canada goose season in northern and central Illinois, and they prefer overlapping this season with the September teal season as much as possible. Majorities of goose hunters supported the Canada goose harvest monitoring system (with permit and call-in requirements) for quota zone counties in northern and central Illinois, disliked the split Canada goose season in the North and Central zones, and preferred a 40-day season with 2 Canada geese daily bag over a 60-day season with 1 Canada goose daily bag.

The purpose of this study was to collect information via mail questionnaire from a random sample of waterfowl hunters in Illinois following the 1997-98 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 1997-98 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, 1997, 1998). Information obtained with these surveys is used by the Department of Natural Resources (DNR) in establishing biologically responsible and sociologically acceptable waterfowl hunting regulations, and in making other management decisions.

## METHODS AND MATERIALS

The mailing list for the 1997-98 survey was compiled by randomly selecting the names and addresses of 4,000 individuals
who registered with the National Migratory Bird Harvest Information Program in Illinois in 1997 (D. Newton, pers. commun.). When registering, all of these people indicated they had hunted waterfowl (ducks, geese, and/or coots) during the previous (1996-97) season. The initial mailing (bulk rate-address service requested) of the questionnaire, along with a letter of explanation (Fig. 2), took place on 16 January 1998. Non-respondents were sent 2 nd and 3 rd copies of the questionnaire, and accompanying letters (Figs. 3 and 4), on 27 February and 3 April, respectively. The U.S. Postal Service successfully reached 3,856 ( 3,634 residents and 222 nonresidents) of the individuals on the mailing list. As of 1 May 1998, 2,708 usable questionnaires were returned for a response rate of 70\%. Response rates for the waterfowl hunter surveys conducted for the 1986 through 1995 seasons varied from 68\% to 75\%.

Data on returned questionnaires were transferred to a computer file using a data management program (Ashton-Tate dBASE IV). The data were analyzed with a statistical program (SPSS Inc. SPSS/PC+V2.0). Results were tabulated relative to species and/or species group, administrative region, waterfowl zone, and (for geese) county.

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 1994-1997. The 1997-98 estimates of waterfowl harvest and hunter activity were based on a sales of 59,961 of the 1997 Illinois Migratory Waterfowl Stamps.

## SEASON LENGTHS AND BAG LIMITS

Illinois' early teal season took place on 6-14 September 1997, 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 U.S. Fish and Wildlife Service (FWS) allowed the states to have a special "Youth Waterfowl Hunting Day" for the first time in 1996. This action was repeated in 1997. The day selected had to occur on a weekend or holiday, and it had to be outside the regular duck season. Youths $\leq 15$ years of age could participate, provided they were accompanied by an adult at least 18 years old. The bag limits (ducks, mergansers, and coots) were the same as those in effect during the regular duck season. Goose hunting was not allowed. Illinois' 1997 youth hunt occurred 7 days prior to the opening of the regular duck season:

September 27 in the North Zone, October 11 in the Central Zone, and November 1 in the South Zone.

The regular duck season was 60 days in length in 1997, and the bag limit was 6 ducks ( 4 mallards) per day using the Conventional System (Fig. 5). Legal shooting time was $1 / 2$ hour before sunrise to sunset. In 1996, the duck season extended for 50 days, and the daily bag limit was 5 ducks ( 4 mallards).

The early September Canada goose season was offered in the Northeast Zone (Cook, DuPage, Grundy, Kane, Kendall, Kankakee, Lake, McHenry, and Will), plus all of the remaining counties in the North and Central Zones, in 1997. The dates for this season were 1-14 September in the Northeast Zone and 6-14 September (same as teal season) in the North and Central Zones. Bag limits were 5 Canada geese per day in the Northeast Zone and 2 Canada geese per day in the other 2 zones. Legal shooting hours were 1/2 hour before sunrise to sunset.

For Canada geese, the 1997 regular season was scheduled to extend for 78 days in the North and Central Zones (note exceptions below). These seasons were split into 2 segments. The Canada goose harvest monitoring system that was implemented in 18 counties in the North and Central Zones in 1994-95 was continued in 1997-98 (Fig. 5). Canada goose hunters in these counties had to obtain a special permit (Fig. 6), which was issued free with purchase of the Illinois Migratory Waterfowl Stamp. These hunters were required to report Canada geese harvested on a daily basis via a toll-free phone number (1-800WETLAND). The quotas were 8,400 Canada geese for the North Quota

Zone Counties and 12,500 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). Based on harvest estimated obtained with this monitoring system, the Canada goose season was discontinued in the North Zone after 40 days, and in the Central Zone after 68 days, in 1997.

The Canada goose season extended for 78 days in the South Waterfowl Zone in 1997-98. In the Southern Illinois and Rend Lake Quota Zones, the seasons were 78 days or when 26,400 and 5,700 Canada geese were harvested, respectively. The statewide quota was 74,600 Canada geese (compared to 94,900 in 1996). The bag limit was 2 Canada geese per day (same as in 1996) statewide. The FWS permitted the states to have a late snow/blue goose hunting season again in 1997-98. In Illinois, this late season took place 1 February-1 March in the South Waterfowl Zone, 21 February-10 March in the Central Zone, and 28 February to 10 March in the North Zone. The bag limit was 10 geese per day and 30 in possession.

## FINDINGS

Of the 2,708 respondents who returned usable questionnaires, 1,633 (60\%) purchased a 1997 Illinois Migratory Waterfowl Stamp. Among these stamp purchasers were 1,451 (89\%) individuals who reported hunting waterfowl in Illinois during the 1997-98 season.

Waterfowl Harvest and Hunter Activity An estimated 54,715 waterfowl hunters (4\% less than in 1996)
were active in Illinois during the 1997 season (Table 1). They spent 881,030 days afield (5\% more than in 1996) and harvested 401,236 waterfowl (7\% more than in 1996).

Of the 54,715 hunters who were active in 1997, 39\% hunted ducks only, $22 \%$ hunted geese only, and $39 \%$ 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 1988-1997. Conversely, the percentage of waterfowl hunters who pursued geese increased from an average of $42 \%$ in 1981-1987 to an average of $68 \%$ in 19881997 (Table 2). This increase occurred in spite of the fact that the percentage of waterfowl hunters who pursued geese decreased from 1994 to 1997.

September Teal Season. An estimated 11,819 hunters spent 32,179 days afield, and harvested 22,005 teal during Illinois' 9-day September teal season in 1997 (Table 3). There were more teal hunters $(3,317)$, more days spent afield $(8,693)$, and more teal harvested (7,144) in Administrative Region $1 B$ than in any other region. Region 3A was a close 2 nd in all 3 categories.

The 1997 estimates for teal hunters, days afield, and teal harvested were $32 \%, 41 \%$, and $90 \%$ more, respectively, than comparable estimates for 1996 (Table 4). However, the 1997 estimates were less than the estimates prior to 1988--i.e., before the FWS's 4-year suspension of the September season.

Hunter success rates during the September season in 1997 were 0.68 teal per hunter per day afield and 1.86 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). Based on these data, September teal hunting was "about average" in Illinois in 1997.

The FWS estimated that Illinois' September teal harvest increased from 10,170 birds in 1996 to 21,370 birds in 1997 (Martin and Padding 1998 and 1999).

Youth Waterfowl Hunting Day. An estimated 3,163 Illinois Migratory Waterfowl Stamp purchasers, or $7.4 \%$ of the state's duck hunters, took 4,322 youths afield on this special day in Illinois in 1997 (Table 6). The hunting parties averaged 1.37 youths each, and two-thirds (65\%) of the parties harvested $\geq 1$ ducks. Overall, hunting success was 0.80 duck per youth. In 1996, 2,749 adults took 4,353 youths afield, and they harvested an average of 0.73 duck per youth.

Regular Duck Season. An estimated 42,587 individuals hunted ducks during the regular duck season in Illinois in 1997 (Table 7). These hunters harvested 291,161 ducks in 514,934 days afield. There were more duck hunters $(10,332)$, more days spent afield (136,225), and more ducks harvested (81,677) in Administration Region 1B than in any other region. Region 3A was a close 2nd in all 3 categories. Compared to the previous year, the number of duck hunters decreased $4 \%$, days afield increased 12\%, and duck harvest increased 2\%, in 1997 (Table 8).

The 291,161 ducks harvested in Illinois in 1997 included an estimated 145,533 mallards, 44,678 wood ducks, and 100,950 other ducks (including 5,749. canvasback). The FWS estimated that 372,100 total ducks were harvested in. the state during the
regular duck season in 1997 , which included 185,700 mallards, 47,100 wood ducks, and 139,300 other ducks (including 6,300 canvasback) (Peterson 2000). The FWS estimates indicated that duck harvest increased $17 \%$ in Illinois, $17 \%$ in the Mississippi Flyway, and $16 \%$ in the United States, from 1996 to 1997 (Peterson 2000) .

Statewide, hunting success rates were 0.57 duck per hunter per day afield and 6.84 ducks per hunter per season in 1997 (Table 9). From 1981 to 1996 , success rates ranged from 0.48 to 0.74 duck per hunter per day afield and from 4.30 to 8.40 ducks per hunter per season. Based on these comparisons, duck hunters had "about average" success in Illinois in 1997.

Two-thirds (66\%) of the duck hunters were active in a single county, $25 \%$ were active in 2 counties, and $9 \%$ were active in $\geq 3$ counties. Similarly, $54 \%$ of the duck hunters were active in their county of residence and $32 \%$ were active only in their county of residence.

Coot Hunting. The coot harvest was estimated at 3,935 birds in Illinois in 1997, 20\% more than the estimated harvest for 1996 (Tables 7 and 8). The FWS estimated the Illinois coot harvest at 4,382 birds for the 1997 season, up 47\% from that agency's estimate for 1996 (Martin and Padding 1998 and 1999).

September Canada Goose Season. This early Canada goose hunting season took place in the Northeast Zone, plus all of the remaining counties in the North and Central Zones, in 1997. Thus, this season occurred in all or parts of 72 counties. An estimated 11,765 hunters spent 34,988 days afield,
and harvested 11,443 Canada geese during this early season (Table 10). The counties in the Central Zone accounted for $49 \%$ of the hunters and $45 \%$ of the days afield. However, $47 \%$ of the Canada goose harvest occurred in the Northeast Zone. In 1996, when the experimental September season was limited to the 22 in the Northeast and North Zones, an estimated 3,902 hunters spent 10,185 days afield and harvested 2,934 Canada geese (Anderson et al. 1998).

Requiar Goose Season. An estimated 33,498 goose hunters were active during the regular goose season in Illinois in 199798, and they spent 295,107 days afield (Table 11). The Southern Illinois Quota Zone (Alexander, Jackson, Union, and Williamson counties), located in Administrative Region 5, accounted for 38\% of the goose hunters and $29 \%$ of the days afield. The Rend Lake Quota Zone (Franklin and Jefferson counties), also in Region 5, accommodated $6 \%$ of the hunters and $4 \%$ of the days afield. The remainder of the state was associated with $67 \%$ of the hunters and $67 \%$ of the days afield. Statewide, the number of goose hunters and their days afield decreased $8 \%$ and $13 \%$, respectively, from 1996 to 1997 (Table 12).

There were an estimated 61,282 Canada geese and 68,854 total geese harvested during the regular goose season in Illinois in 1997-98 (Table 11). The Canada goose harvest decreased 7\% between 1996-97 and 1997-98 (Table 12). The FWS estimated that 87,800 Canada geese and 101,000 total geese were taken in the state in 1997-98 (Peterson 2000).

Canada goose harvest in the Southern Illinois Quota Zone was
tabulated (via daily registration forms) at 22,010 birds during the 1997-98 season (Marshalla and Thornburg 1998). This represents $36 \%$ of the statewide harvest of Canada geese during the regular goose season. In the Rend Lake Quota Zone, an estimated 2,118 Canada geese ( $3 \%$ of state's total harvest) were taken. This estimate was $36 \%$ less than the projected harvest (i.e., projected from the reported harvest on public hunting areas) of 3,304 Canada geese for the entire Rend Lake Quota Zone (K.A. Thornburg, pers. commun.).

The Canada goose harvest in the 18 North and Central Quota Zone Counties was estimated at 18,163 birds (Table 13). Quota counties credited with harvests >1,000 Canada geese included DuPage, Kane, Lake, and McHenry (in North Zone); Fulton, Knox, Mason, and Tazewell (in Central Zone); and Will (in both zones). In comparison, the phone-in monitoring system recorded a harvest of 21,324 Canada geese in the 18 North and Central Quota Zone Counties in 1997-98 (Table 14). Thus, the 2 procedures--mail-questionnaire survey and phone-in monitoring system--produced Canada goose harvest estimates for the 18 quota counties that differed by 15\% in 1997-98.

It is noteworthy that 24 of Illinois' 102 counties were covered by a Canada goose harvest monitoring system during the 1997-98 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 $69 \%$ of the Canada goose harvest in Illinois in 1997-98 (Table 15).

The harvests of Canada geese are presented by county, zone, and administrative region for the 1995-96 through 1997-98 seasons in Appendix A (Tables A1 and A2). Non-quota counties with harvests >1,000 Canada geese in 1997-98 included Cook (in North Zone), and Fayette and Perry (in South Zone).

Statewide, hunters experienced an overall success rate of 0.22 goose per hunter per day afield and 1.90 geese per hunter per season in 1997-98 (Table 11). In the Southern Illinois Quota Zone, success was 0.27 and 1.83 geese, respectively. Similarly, hunter success was 0.16 and 0.90 geese at Rend Lake, and 0.20 and 1.73 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 1996 (Table 16).

Snow/Blue Goose Hunting. An estimated $16.8 \%$ of the state's 33,498 goose hunters either hunted or anticipated going hunting during the late snow/blue goose season in 1997-98. Thus, this season, which ended 1 March in the South Zone and 10 March in the Central and North Zones, could have attracted as many as 5,628 active hunters.

The statewide snow/blue goose harvest was estimated to be 5,941 birds during the 1997-98 season (Table 11). This estimate is conservative because the present waterfowl hunter survey was initiated before the late snow/blue goose season began. The Southern Illinois Quota Zone accounted for $34 \%$ of the snow/blue goose harvest, the Rend Lake quota Zone accounted for $4 \%$, and the remainder of the South Zone accounted for $30 \%$ (Table 11). Thus,
two-thirds of the snow/blue goose harvest was associated with the South Waterfowl Zone. Snow/blue goose harvests are presented by county and zone for the 1996-97 and 1997-98 seasons in Appendix A (Table A3).

Crippling Losses. Crippling losses (birds knocked down but not retrieved) were estimated at 67,979 ducks, 12,490 geese, and 1,373 coots in Illinois during the 1997-98 hunting season (Table 17). These estimates, which are considered to be indices and not actual numbers, equate to 23.3 ducks, 18.1 geese, and 34.9 coots lost per 100 harvested. The 1997 crippling rates for ducks and geese were among the lowest observed since the Illinois Waterfowl Hunter Survey was initiated in 1981.

Nationwide crippling rates for ducks and geese during the 1997 season, as measured via hunter questionnaire surveys conducted by the FWS since 1952, were among the lowest ever recorded (Table 18).

Attitudes and Opinions of Hunters
Youth Waterfowl Hunting Day. A plurality (38\%) of the state's duck hunters thought the 6-day no hunting period between the Youth Waterfowl Hunting Day (YWHD) and opening day of the regular duck season in 1997 was about the right length (Table 19). Interestingly, the same percentage of hunters (38\%) had no opinion about this matter. These attitudes prevailed in all waterfowl zones and administrative regions in the state.

A plurality (44\%) of the duck hunters also felt that the YWHD should be scheduled before the regular duck season began
(Table 19). However, one-third (32\%) of the hunters did not express an opinion. These attitudes were prevalent throughout the state.

Dates for Regular Duck Season. According to responses to question \#20, a plurality of the duck hunters in the North Zone (46\%) thought the dates used for the regular duck season in 1997 would be "about right" for the 1998 season (Table 20). However, one-half of the hunters in the central (50\%) and South (50\%) Zones believed the dates are "too early". Although the 1997 duck season set a record for lateness in Illinois (to 6 January in the South Zone), unseasonably mild temperatures in November and December apparently influenced attitudes of many hunters.

If the length of the regular duck season remains at 60 days in 1998, a plurality (42\%) of the hunters would prefer that the season open on a Thursday and close on a Sunday (Table 20). This sentiment was strongest in.Administrative Region 3A (Fig. 7). Slightly fewer hunters (39\%) opted for a Saturday opening/Tuesday closing, a sentiment that was strongest in Regions 1B and 3B.

Early September Canada Goose Season. Majorities of waterfowl hunters in the North Zone liked the early September Canada goose season in their county of residence (60\%), in the county where they goose hunt most (80\%), and in the county where they duck hunt most (55\%) (Table 21). Although less persuasive, hunters in the Central Zone expressed similar sentiments. For both zones, the hunters expressed their most support in the county where they goose hunt most (61\%) and the least support in the county where they duck hunt most (45\%).

Majorities of both goose hunters (57\%) and teal hunters (71\%) would like to see the September Canada goose season and the September teal season overlap as much as possible (Table 22). These feelings prevailed in the Northeast, North, and Central Zones, all of which had a September Canada goose season that totally overlapped the September teal season in 1997.

Goose Harvest Monitoring System in North and Central Zones. The Canada goose harvest monitoring system that was implemented in the North and Central zones in 1994-95 was continued through the 1997-98 season. With this system, goose hunters in selected counties in each zone must report on a daily basis (via toll-free telephone number) their harvest of Canada geese. The hunting season is closed in the entire zone when the harvest quota is reached in the monitored counties. This system provides the potential for longer goose seasons and, at the same time, prevents over harvest of the goose population. As an alternative, the permit and call-in reporting requirements could be eliminated and the Canada goose harvest controlled with shorter seasons. When presented with these facts, the vast majorities (75-84\%) of the goose hunters in the North and Central Zones voted for retaining the goose harvest monitoring system (Table 23).

Dates for Regular Canada Goose Season. In the North Zone, the 1997-98 regular Canada goose season was scheduled to be open 4-12 October (9 days), closed 13-30 October (18 days), and open again 31 October-7 January ( 69 days). When asked to give their opinion, a majority (56\%) of the northern goose hunters expressed
dislike for this split season (Table 24). Pluralities (39-46\%) of the hunters thought the 4-12 October open period was "too short", the 13-30 October closed period was "too long", and the 31 October-7 January open period was "about right". A plurality (41\%) of the hunters would prefer that the 1998-99 Canada goose season in the North Zone begin with the duck season and run continuously (Table 25). Only $24 \%$ of the hunters opted for a split season.

In the Central Zone, the 1997-98 Canada goose season was scheduled to be open 18-19 October (2 days), closed 20 October-12 November ( 26 days), and open again 15 November-29 January (76 days). One-half (50\%) of the central Illinois goose hunters disliked having the season split into 2 time periods (Table 26). A majority (53\%) of the hunters felt the 18-19 October open period was "too short", a plurality (37\%) believed the 20 October-14 November closed period was "too long", and a majority (53\%) thought the 15 November-29 January open period was "about right". A plurality (38\%) of the hunters would prefer that the 1998-99 Canada goose season in the Central Zone begin several weeks after the opening of the duck season and run continuously (Table 25). However, nearly an many hunters (35\%) would like a Canada goose season that begins with the duck season and runs continuously. Only $19 \%$ of the hunters opted for a split season.

In the South Zone, the Canada goose season opened on 15 November, which was 1 week after opening of the duck season. A majority (65\%) of the hunters in this zone felt that using a similar date (14 November) for opening the 1998-99 season would
be "too early" (Table 27). A majority (73\%) of the hunters also felt that the Canada goose season should open later than the duck season.

Tradeoffs Between Length of the Canada Goose Season and Daily Bag Limit. In the event of more restrictive regulations in 1998-99, majorities (58-66\%) of the goose hunters in southern Illinois would prefer to have a 4.0-day season with 2 Canada geese per day to a 60-day season with 1 Canada goose per day (Table 28). A plurality (48\%) of the goose hunters in the North Zone conveyed the same attitude about season length and bag limit. However, a plurality (48\%) of the hunters in the Central zone felt differently--they preferred a 60-day season and a daily bag of 1 Canada goose.

## DISCUSSION

Because of improving water and vegetative 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 77 million in 1995 to 90 million in 1996 and in 1997 (Canadian Wildlife Service and U.S. Fish and Wildlife Service 1994, 1995, 1996; U.S. Fish and wildlife Service 1997). 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 and 1996 to 60 days in 1997. The daily bag limit was increased from 3 ducks (2 mallards) in 1988-1994 to 5 ducks (4 mallards) in 1995 and 1996 to 6 ducks ( 4 mallards) in 1997.

In response to the longer duck season, the number of duck
hunters increased 9\%, and their days afield increased 30\%, from 1993 to 1994 (Table 8). The number of duck hunters and their days afield remained relatively steady in 1994 through 1997, despite the fact that hunting regulations became progressively more liberal during this period. The duck harvest increased 13\% from 1993 to 1994 and 53\% from 1994 to 1995, but decreased 25\% from 1995 to 1996. There was a slight (2\%) increase in duck harvest from 1996 to 1997.

Although the goose harvests during the regular seasons in 1996-97 and 1997-98 may be classified as "average", they pale in comparison to the record number of geese taken in 1995-96 (Table 12). Hunter success was also lower in 1996-97 and 1997-98 than in 1995-96 (Table 18). Thus, it comes as no surprise that many waterfowlers viewed 1996-97 and 1997-98 as "off years" for goose hunting. However, the 73,737 geese taken in 1996-97 and the 80,297 geese taken in 1997-98 (regular season plus early September season) represent respectable harvests of geese for Illinois.

When waterfowl hunters were asked to express their opinions about the early September Canada goose hunting season, majorities in the North Zone said they liked this season (Table 21). Hunters in the Central Zone conveyed similar, albeit less persuasive, sentiments. The hunters in both zones collectively expressed the most support for the early September Canada goose season in the county where they goose hunt most (61\%), somewhat less support in the county where they reside (48\%), and the least support in the county where they duck hunt most (45\%). It
appears that goose hunters are more supportive of the early September Canada goose season than duck hunters.

Based on the information at hand, we recommend continuing with the early September Canada goose season in both the North and Central zones. Serious consideration should also be given to expanding this season to the South Zone. And, because of sentiments expressed by both September goose hunters and September teal hunters, the September Canada goose season and the September teal season should overlap as much as possible.

Goose hunters in the North and Central Zones expressed strong support for the Canada goose harvest monitoring system (with permit and phone-in requirements) that was implemented in selected counties in northern and central Illinois in 1994-95 (Table 23). In view of this support (essentially a mandate), and recognizing the advantages afforded by the monitoring system, we recommend continuing with this system into the foreseeable future. However, we point out that the monitoring system and the waterfowl hunter surveys produced estimates of Canada goose harvests for the quota counties that differed appreciably in 3 of 4 years. The differences (monitoring system relative to waterfowl hunter surveys) were -1\% in 1994-95, +25\% in 1995-96, +32\% in 1996-97, and +15\% in 1997-98. Thus, we recommend conducting an evaluation designed to determine why the Canada goose harvest estimates produced by the 2 methods differed in most years. At the present time, we do not know whether the monitoring system estimates are biased high or the survey estimates are biased low.

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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.
$\qquad$ . 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.
$\qquad$ . 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. 39pp.
, and R.A. Williamson. 1990. Illinois waterfowl harvest, hunter activity, and attitudes toward shooting hen mallards, legal shooting time, point system, and season dates in 1988. Ill. Dep. Conserv., Waterfowl Program, Period. Rep. 64. 43pp.
, 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. 43 pp .
, 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. 44 pp .
, 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. Conserv., 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. Conserv., 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.
, R.W. Marshalla, and R.M. Whitton. 1997. Illinois waterfowl harvest, hunter activity, and attitudes toward teal/duck/goose regulations and goose harvest monitoring system, plus ages of hunters, 1995-96 season. Ill. Dep. Nat. Resour., Waterfowl Program, Period. Rep. 91. 66pp + appendix.
$\qquad$ , $\qquad$ $-1$ $\qquad$ , and D.J. Holm. 1998. Illinois waterfowl harvest, hunter activity, and attitudes toward youth waterfowl hunting day, quality hunting, and duck/goose regulations, plus sex/age of hunters, 1996-97 season. Ill. Dep. Nat. Resour., Waterfowl Program, Period. Rep. 95. 69pp + 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.
$\qquad$ , and $\qquad$ .
1996. Waterfowl population status, 1996. Report dated 18 July 1996. 39pp.

Marshalla, R.W., and K.A. Thornburg. [1998]. Canada goose harvest and hunter activity in the Southern Illinois Quota Zone during the 1997-98 season. Ill. Dep. Nat. Resour., Waterfowl Program, Period. Rep. 96. 25pp.

Martin, E.M., and P.I. Padding. 1998. Preliminary estimates of waterfowl harvest and hunter activity in the United States during the 1997 hunting season. U.S. Fish and Wildl. Serv., Off. Mig. Bird Manage., Admin. Rep. dated July 1998. 34pp.
$\qquad$ , and $\qquad$ - 1999. Preliminary estimates of waterfowl harvest and hunter activity in the United States during the 1998 hunting season. U.S. Fish and Wildl. Serv., Off. Mig. Bird Manage., Admin. Rep. dated July 1999. 34pp.

Peterson, J. 2000. Waterfowl harvest and population survey data. U.S. Fish and Wildl. Serv., Off. Mig. Bird Manage., Rep. dated July 2000. 83pp.
U.S. Fish and Wildlife Service. 1997. Waterfowl population status, 1997. Report dated 23 July 1997. 47pp.

Table 1. Summary of Illinois Migratory Waterfowl Stamps purchased, hunter activity, and waterfowl harvest in Illinois from 1981 through 1997 hunting seasons.

| $\begin{aligned} & \text { Season } \\ & \text { (Year) } \end{aligned}$ | Stamps Purchased | Hunters | $\begin{aligned} & \text { Days } \\ & \text { Afield } \end{aligned}$ | Waterfowl Harvested ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: |
| 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 | $58,803(5,550)^{6}$ | 60,371 | 814,918 | 354,194 |
| $1988{ }^{\text {c }}$ | 53,498 (4,350) | 53,450 | 644,056 | 264,316 |
| $1989{ }^{\text {c }}$ | 55,693 (3,570) | 55,709 | 749,033 | 322,359 |
| $1990{ }^{\text {c }}$ | 55,009 (2,390) | 55,152 | 708,391 | 270,796 |
| $1991{ }^{\text {c }}$ | 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 |
| 1996 | 62,417 (545) | 56,956 | 836,793 | 376,248 |
| 1997 | 59,961 ( 480) | 54,715 | 881,030 | 401,236 |

${ }^{\text {ateal, ducks, coots, and geese combined. The U.S. Fish and }}$ Wildlife Service suspended the September teal season in 1988 through 1991.
bstamps purchased for commercial art purposes. These stamps were not included in the numbers to the left.
${ }^{\text {c }}$ 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 1997 seasons.

| Season (Year) | Percentage Who Hunted: |  |  | Percentage Who Were: |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ducks Only | Geese Only | Both Ducks and Geese | Duck 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 | 7.6 | 69 |
| 1993 | 30 | 20 | 50 | 80 | 69 |
| 1994 | 30 | 17 | 53 | 83 | 70 |
| 1995 | 33 | 23 | 44 | 77 | 67 |
| 1996 | 36 | 23 | 41 | 77 | 64 |
| 1997 | 39 | 22 | 39 | 78 | 61 |

Table 3. Teal harvest and hunter activity, by administrative region, during the September teal season in Illinois in $1997(\mathrm{n}=1,633)$.

| Administrative Region ${ }^{\text {a }}$ | Number of Hunters | Days Afield |  | Teal Harvest |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | $\begin{gathered} \text { Per } \\ \text { Hunter } \end{gathered}$ | Total | Per Day <br> Afield | Per <br> Hunter |
| 1A | 1,106 | 2,745 | 2.48 | 2,139 | 0.78 | 1.93 |
| 1B | 3,317 | 8,693 | 2.62 | 7,144 | 0.82 | 2.15 |
| 2 | 1,449 | 3,813 | 2.63 | 1,471 | 0.39 | 1.02 |
| 3A | 2,783 | 8,045 | 2.89 | 6,475 | 0.80 | 2.33 |
| 3B | 534 | 1,716 | 3.21 | 745 | 0.43 | 1.40 |
| 4 | 1,106 | 2,821 | 2.55 | 1,471 | 0.52 | 1.33 |
| 5 | 1,144 | 3,126 | 2.73 | 1,948 | 0.62 | 1.70 |
| Unknown | 380 | 1,220 |  | 612 |  |  |
| Entire state | 11,819 | 32,179 | 2.72 | 22,005 ${ }^{\text {b }}$ | 0.68 | 1.86 |

${ }^{a}$ See Figure 7.
${ }^{\mathrm{b}}$ The $95 \%$ confidence interval is $\pm 6,985$.

Table 4. Summary of teal harvest and hunter activity during the September teal season in Illinois from 1981 through 1997.

| Year | Hunters | Days Afield | Number of Teal |
| :---: | :---: | :---: | :---: |
| 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 |
| $1988{ }^{\text {a }}$ |  |  |  |
| $1989^{\text {a }}$ |  |  |  |
| $1990{ }^{\text {a }}$ |  |  |  |
| $1991{ }^{\text {a }}$ |  |  |  |
| 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 |
| 1996 | 8,964 | 22,825 | 11,565 |
| 1997 | 11,819 | 32,179 | 22,005 |

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

Table 5. Rates of teal harvest and hunter activity during the September teal season in Illinois in 1981 through 1997.

| Year | Season Length/Bag Limit | Days Afield Per Hunter | Teal Harvest Per Hunter |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Per Day | 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 ${ }^{\text {a }}$ |  |  |  |  |
| 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 |
| 1996 | 9/4 | 2.55 | 0.51 | 1.29 |
| 1997 | 9/4 | 2.72 | 0.68 | 1.86 |

${ }^{\text {a }}$ The September teal season was suspended by the U.S. Fish and Wildlife Service during these years.
Table 6. Waterfowl harvest and hunter activity during the Youth Waterfowl Hunting day in Illinois in 1996 and 1997.

| Characteristic | 1996 | 1997 |
| :--- | :---: | :---: |
| Adult hunters who took $\geq 1$ youths afield | 2,749 | $3,163^{\mathrm{a}}$ |
| Youth hunters who participated | 4,353 | 4,322 |
| Mean youths per hunting party | 1.58 | $1.37^{\mathrm{b}}$ |
| Waterfowl Harvest | 3,171 | 3,451 |
| Total ducks | 0.73 | $0.80^{\mathrm{c}}$ |
| Ducks per youth hunter | 230 | 387 |
| Total coots | 0.05 | 0.09 |
| Coots per youth hunter |  |  |

${ }^{\text {a }} 7 \%$ of adult duck hunters.
${ }^{\mathrm{b}} 64 \%$ of the parties included 1 youth hunter, $31 \%$ included 2 youth hunters, and 5\% included $\geq 3$ youth hunters.
${ }^{\text {c }} 35 \%$ of the parties harvested 0 ducks, $52 \%$ harvested 1-2 ducks, and $13 \%$ harvested $\geq 3$ ducks.
Table 7. Duck and coot harvest and hunter activity, by administrative region, during the regular duck season in Illinois in 1997

| Administrative Region ${ }^{\text {a }}$ | Number of Hunters | Days Afield |  | Duck Harvest |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Per <br> Hunter | Total |  | Per Day Afield ${ }^{\text {b }}$ | Per Hunter ${ }^{\text {b }}$ | $\begin{gathered} \text { Coot } \\ \text { Harvest } \end{gathered}$ |
| 1A | 3,203 | 32,293 | 10.08 | 15,702 | $(1,967){ }^{\text {c }}$ | 0.43 | 4.29 | 19 |
| 1B | 10,332 | 136,225 | 13.18 | 81,677 | $(5,234)$ | 0.56 | 7.41 | 764 |
| 2 | 7,130 | 70,839 | 9.94 | 32,377 | $(4,584)$ | 0.39 | 3.90 | 630 |
| 3A | 9,341 | 135,158 | 14.47 | 70,656 | ( 840) | 0.52 | 7.47 | 1,318 |
| 3B | 1,563 | 17,881 | 11.44 | 6,762 | ( 649) | 0.34 | 3.91 | 0 |
| 4 | 3,355 | 43,731 | 13.03 | 28,690 | $(1,127)$ | 0.63 | 8.22 | 669 |
| 5 | 6,901 | 73,508 | 10.65 | 51,898 | $(6,361)$ | 0.62 | 6.60 | 516 |
| Unknown | 762 | 5,299 |  | 3,399 | ( 631) |  |  | 19 |
| Entire state | 42,587 | 514,934 | 12.09 | 291,161 ${ }^{\text {d, }}$ | $(21,393)$ | 0.57 | 6.84 | $3,935{ }^{\text {f }}$ |

[^1]Table 8. Summary of duck and coot harvests and hunter activity during the regular duck season in Illinois from 1981 through 1997.

| Season (Year) | Hunters | $\begin{aligned} & \text { Days } \\ & \text { Afield } \\ & \hline \end{aligned}$ | Number of Ducks |  |  |  | Number of Coots |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 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 |
| $1990^{\circ}$ | 38,759 | 350,119 | 112,370 | 33,253 | 51,562 | 197,185 | 2,287 |
| $1991{ }^{\text {a }}$ | 42,911 | 393,247 | 177,221 | 49,556 | 80,793 | 307,570 | 1,101 |
| 1992 | 39,272 | 362,275 | 124,112 | 34,280 | 58,035 | 216,427 | 3,275 |
| 1993 | 40,941 | 366,656 | 134,334 | 39,906 | 43,360 | 217,600 | 1,445 |
| 1994 | 44,447 | 475,264 | 137,263 | 44,683 | 64,998 ${ }^{\text {b }}$ | 246,944 | 3,880 |
| 1995 | 42,499 | 482,620 | 230,505 | 47,155 | 99,632 ${ }^{\text {b }}$ | 377,292 | 3,386 |
| 1996 | 44,219 | 460,517 | 163,311 | 38,783 | $82,431^{\text {b }}$ | 284,525 | 3,286 |
| 1997 | 42,587 | 514,934 | 145,533 | 44,678 | 100,950 ${ }^{\text {b }}$ | 291,161 | 3,935 |

${ }^{\text {a }}$ The estimates of duck hunters, days afield, 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.
${ }^{\text {b }}$ Includes 3,760 canvasback in 1994, 5,393 canvasback in 1995, 4,348 canvasback in 1996, and 5,749 in 1997.

Table 9. Rates of duck harvest and hunter activity during the regular duck season in Illinois from 1981 through 1997.

| Year | Season Length/ | Days Afield Per Hunter | Duck Harvest Per Hunter ${ }^{\text {a }}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Per Day | Per Season |
| 1981 | 50/10(4) | 12.85 | 0.48 | 6.17 |
| 1982 | 50/10(4) | 12.38 | 0.51 | 6.26 |
| 1983 | 50/10(4) | 12.91 | 0.62 | 8.00 |
| 1984 | 50/10 (4) | 12.20 | 0.59 | 7.14 |
| 1985 | 40/5 (3) | 10.84 | 0.57 | 6.17 |
| 1986 | 40/5 (3) | 11.91 | 0.59 | 7.08 |
| 1987 | 40/5 (3) | 10.80 | 0.52 | 5.59 |
| 1988 | 30/3 (2) | 8.84 | 0.49 | 4.30 |
| 1989 | 30/3 (2) | 9.29 | 0.55 | 5.12 |
| 1990 | 30/3 (2) | 9.03 | 0.54 | 4.90 |
| 1991 | 30/3 (2) | 9.16 | 0.72 | 6.57 |
| 1992 | 30/3 (2) | 9.22 | 0.57 | 5.22 |
| 1993 | 30/3 (2) | 8.96 | 0.58 | 5.21 |
| 1994 | 40/3 (2) | 10.69 | 0.51 | 5.47 |
| 1995 | 50/5 (4) | 11.36 | 0.74 | 8.40 |
| 1996 | 50/5 (4) | 10.41 | 0.58 | 6.03 |
| 1997 | 60/6 (4) | 12.09 | 0.57 | 6.84 |

${ }^{\text {a }}$ 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 1988-1997.

Table 10. Canada goose harvest and hunter activity, during the early September Canada goose season in north and central Illinois in 1997.

| Waterfowl Zone | Hunters | Days Afield | Canada Geese |
| :--- | :---: | :---: | :---: |
| Northeast $^{\text {a }}$ | 3,438 | 11,039 | 5,405 |
| North $^{\text {b }}$ | 2,139 | 6,952 | 2,216 |
| Central $^{\text {b }}$ | 5,768 | 15,890 | 3,774 |
| Unknown <br> Total | 11,765 | 1,107 | 48 |

${ }^{a}$ Cook, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, and Will counties.
${ }^{\mathrm{b}}$ Excluding those counties in the Northeast Zone.
${ }^{\text {c }}$ The harvest was $\geq 500$ Canada geese in the following counties: Cook (609), Kane (1,120), Lake (1,388), McHenry (1,315), Will (536), Ogle (584), and Fulton (925).
Table 11. Goose harvest and hunter activity, by zone and administrative region, during the regular goose season in Illinois in 1997-98 ( $\mathrm{n}=1,633$ ).

| Zone or Administrative Region ${ }^{\text {a }}$ | Hunters | Days Afield |  | Goose Harvest |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Per Hunter | Canada Geese | Snow/Blue Geese | Other Geese | Total Geese |  | Per Day Afield ${ }^{\text {b }}$ | $\begin{gathered} \text { Per } \\ \text { Hunter } \end{gathered}$ |
| Southern IL Quota Zone | 12,567 | 86,324 | 6.87 | 22,010 | 2,021 | 365 | 24,396 | $(1,388)$ | 0.27 | 1.83 |
| Rend Lake Quota Zone | 2,024 | 11,230 | 5.55 | 2,118 | 219 | 73 | 2,410 | ( 584) | 0.16 | 0.90 |
| Remainder of State |  |  |  |  |  |  |  |  |  |  |
| 1 A | 1,910 8,250 | 11,841 69,059 | 6.20 8.37 | 1,290 9.374 | 0 49 | 0 24 | 1,290 9,447 | $(122)$ $(901)$ | 0.10 0.12 | 0.61 1.04 |
| 2 | 7,181 | 40,566 | 5.65 | 10,007 | 49 | 0 | 10,056 | ( 682) | 0.23 | 1.31 |
| 3A | 3,361 | 28,342 | 8.43 | 4,772 | 633 | 49 | 5,454 | ( 828) | 0.16 | 1.38 |
| 3B | 1,986 | 13,980 | 7.04 | 2,264 | 268 | 97 | 2,629 | ( 341) | 0.16 | 1.15 |
| 4 | 1,948 | 15,355 | 7.88 | 3,165 | 925 | 122 | 4,212 | ( 317) | 0.25 | 2.00 |
| $5{ }^{\text {d }}$ | 1,986 | 16,692 | 8.40 | 6,087 | 1,777 | 901 | 8,765 | ( 0) | 0.53 | 4.41 |
| Unknown | 191 | 1,718 |  | 195 | 0 | 0 | 195 | ( 47) |  |  |
| Total | 22,460 ${ }^{\text {e }}$ | 197,553 | 8.80 | 37,154 | 3,701 | 1,193 | 42,048 | $(3,238)$ | 0.20 | 1.73 |
| Entire State | 33,498 ${ }^{\text {e }}$ | 295,107 | 8.81 | 61,282 | 5,941 | 1,631 | 68,854 ${ }^{\text {f }}$ | $(5,210)$ | 0.22 | 1.90 |

## ${ }^{\text {a }}$ See Figure 7. <br> ${ }^{\mathrm{b}}$ Excludes geese harvested coincidentally to duck hunting.

dumber of geese harvested coincidentally to duck hunting.
${ }^{\mathrm{d}}$ Excludes Southern IL Quota Zone and Rend Lake Quota Zone.
${ }^{\mathrm{e}}$ The totals are less than the sum of the above values because some hunters were active in $>1$ zone and/or region. ${ }^{\mathrm{f}}$ The $95 \%$ confidence interval is $\pm 10,445$.

Table 12. Summary of goose harvest and hunter activity during the regular goose season in Illinois from 1981-82 through 1997-98.

${ }^{\text {a }}$ Number of geese harvested coincidentally to duck hunting.
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.
${ }^{c}$ Includes 4,063 snow/blue geese.
${ }^{d}$ Includes 5,941 snow/blue geese.

Table 13. Canada goose harvest and hunter activity in the North and Central Quota Zone counties in Illinois during the 1997-98 season.

| Zones and Quota Counties | Hunters |  | $\begin{aligned} & \hline \text { Days } \\ & \text { Afield } \\ & \hline \end{aligned}$ | Canada Geese |
| :---: | :---: | :---: | :---: | :---: |
|  | Successful ${ }^{\text {a }}$ | Total |  |  |
| North Zone |  |  |  |  |
| Dupage | 382 | 420 | 2,215 | 1,217 |
| Kane | 497 | 917 | 4,698 | 1,144 |
| Lake | 726 | 1,222 | 5,309 | 2,533 |
| McHenry | 726 | 1,528 | 6,111 | 1,242 |
| LaSalle ${ }^{\text {b }}$ | 76 | 191 | 802 | - 146 |
| Will ${ }^{\text {b }}$ | 191 | 458 | 2,521 | 438 |
| Total | 2,598 | 4,736 | 21,656 | 6,720 |
| Central zone |  |  |  |  |
| Calhoun | 191 | 306 | 3,018 | 755 |
| Cass | 0 | 76 | 458 | 0 |
| Fulton | 1,604 | 3,629 | 36,249 | 3,992 |
| Grundy | 458 | 955 | 5,462 | 609 |
| Jersey | 0 | 115 | 382 | 0 |
| Knox | 764 | 1,184 | 7,945 | 1,289 |
| Mason | 420 | 573 | 4,202 | 1,120 |
| Morgan | 267 | 382 | 3,399 | 609 |
| Peoria | 191 | 764 | 4,431 | 195 |
| Pike | 267 | 458 | 4,469 | 463 |
| Tazewell | 115 | 649 | 6,035 | 1,217 |
| Woodford | 76 | 153 | 649 | 49 |
| LaSalle ${ }^{\text {c }}$ | 191 | 344 | 1,681 | 268 |
| Will ${ }^{\text {c }}$ | 420 | 879 | 5,157 | 877 |
| Total | 4,964 | 10,467 | 83,537 | 11,443 |

${ }^{\text {a }}$ Harvested $\geq 1$ Canada geese.
${ }^{\mathrm{b}}$ North of I-80 (33\%).
${ }^{c}$ South of I-80 (67\%).

Table 14. Canada goose harvest in the North and Central Quota Zone counties in Illinois in 1997-98 as determined by phone-in monitoring system and by mail questionnaire survey.

|  | Phone-in <br> Monitoring <br> System | Mail <br> Questionnaire <br> Survey | Percentage <br> Difference |
| :--- | :---: | :---: | :---: |
| Quota Zone Counties | 8,386 | 6,720 | -20 |
| North Quota Zone counties | 12,938 | 11,443 | -12 |
| Central Quota Zone counties | 21,324 | 18,163 | -15 |


| Geographical Zones and Quota Zones | Canada Geese |  |
| :---: | :---: | :---: |
|  | Number | Percentage |
| North Waterfowl Zone |  |  |
| Quota counties | 6,720 | 68 |
| Other counties | 3,164 | 32 |
| Total | 9,884 | 100 |
| Central Waterfowl Zone |  |  |
| Quota counties | 11,443 | 59 |
| Other counties | 7,815 | 41 |
| Total | 19,258 | 100 |
| South Waterfowl Zone |  |  |
| Rend Lake Quota Zone | 2,118 | 7 |
| Southern Quota Zone | 22,010 | 69 |
| Other counties | 7,817 | 24 |
| Total | 31,945 | 100 |
| Entire state |  |  |
| Quota zones | 42,291 | 69 |
| Other counties | 18,796 | 31 |
| Unknown | 195 | <1 |
| Total | 61,282 | 100 |

Table 16. Rates of goose harvest and hunter activity during the regular goose season in Illinois in 1981-82 through 1997-98.

| Year | Season Length/ <br> Bag Limit | Days Afield <br> Per Hunter | Goose Harvest Per Hunter |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  | Per Day | Per Season |
| 1981 | $50 / 2$ | 5.62 | 0.30 | 1.67 |
| 1982 | $40 / 1-2$ | 4.47 | 0.24 | 1.06 |
| 1983 | $35-40 / 1-2$ | 4.76 | 0.22 | 1.05 |
| 1984 | $20-25 / 1-2$ | 4.57 | 0.21 | 0.95 |
| 1985 | $20-31 / 1-2$ | 4.77 | 0.32 | 1.55 |
| 1986 | $40-50 / 1-2$ | 6.60 | 0.18 | 1.19 |
| 1987 | $40-50 / 2$ | 6.95 | 0.15 | 1.04 |
| 1988 | $50 / 2$ | 7.29 | 0.28 | 2.04 |
| 1989 | $56-60 / 2$ | 8.35 | 0.27 | 2.28 |
| 1990 | $70 / 3$ | 8.55 | 0.19 | 1.65 |
| 1991 | $84-90 / 3$ | 10.32 | 0.21 | 2.14 |
| 1992 | $79 / 2$ | 9.47 | 0.17 | 1.64 |
| 1993 | $46 / 2$ | 8.43 | 0.31 | 2.63 |
| 1994 | $51 / 2$ | 9.91 | 0.21 | 1.82 |
| 1995 | $89-93 / 3$ | 9.27 | 0.25 | 2.47 |
| 1996 | $84-93 / 2$ | 8.81 | 0.20 | 1.86 |
| 1997 | $78 / 2$ |  | 0.22 | 1.90 |
|  |  |  |  |  |

${ }^{a}$ 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 17. Summary of the number of ducks, geese, and coots that were crippled (knocked down but not retrieved) in Illinois from 1981 through 1997 seasons.

| Year | Ducks |  | Geese |  | Coots |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Per 100 |  | Per 100 |  | Per 100 |
|  | Total | Bagged | Total | Bagged | Total | Bagged |
| 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 |
| $1991{ }^{\text {a }}$ | 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 | 23.0 | 18,391 | 19.2 | 1,085 | 32.0 |
| 1996 | 64,324 ${ }^{\text {b }}$ | 22.6 | 16,641 ${ }^{\text {b }}$ | 23.5 | $430^{\text {b }}$ | 13.1 |
| 1997 | 67,979 | 23.3 | 12,490 | 18.1 | 1,373 | 34.9 |

${ }^{\text {a }}$ 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.
${ }^{\mathrm{b}}$ The $95 \%$ confidence intervals were $\pm 10,983$ for ducks, $\pm 2,203$ for geese, and $\pm 759$ 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 1997 seasons. Data from the 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 | 15.0 | 20.8 |
| 1996 | 17.8 | 13.2 | 24.2 |
| 1997 | 18.1 | 13:7 | 23.0 |

${ }^{8}$ No data for 1952-1970.

Table 19. Attitudes of duck hunters toward the dates for the Youth Waterfowl Hunting Day (Illinois 1997). Sample sizes are in parentheses.

Responses to the questions:
"Illinois' 1997 Youth Waterfowl Hunting Day took place 7 days before the opening of the regular duck season in each zone. Thus, there were 6 days of no hunting between the Youth Waterfowl Hunting Day and the opening of the regular duck season. In your opinion, was this 6-day no hunting period about right, or should it have been longer than 6 days or shorter than 6 days?"

|  | Responses by Waterfowl Zones |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\frac{\text { North }}{(219)}$ |  |  |  |
|  | $\frac{\text { Central }}{(622)}$ | $\frac{\text { South }}{(223)}$ | $\frac{\text { Entire State }}{(1,084)}$ |  |
| Six days about right | $37 \%$ | $37 \%$ | $43 \%$ | $38 \%$ |
| Should have been >6 days | 15 | 17 | 16 | 17 |
| Should have been <6 days | 3 | 5 | 3 | 4 |
| Other | 2 | 4 | 2 | $3^{\text {a }}$ |
| No opinion | 43 | 37 | 36 | 38 |

Responses by Administrative Regions

|  | $(81)$ | $(264)$ | $(179)$ | $(241)$ | $(39)$ | $(86)$ | $(174)$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Six days about right | $33 \%$ | $42 \%$ | $37 \%$ | $33 \%$ | $36 \%$ | $43 \%$ | $41 \%$ |
| Should have been $>6$ days | 15 | 15 | 15 | 22 | 10 | 17 | 16 |
| Should have been $<6$ days | 1 | 2 | 6 | 7 | 8 | 4 | 3 |
| Other | 1 | 4 | 2 | 4 | 3 | 2 | 2 |
| No opinion | 50 | 37 | 40 | 34 | 43 | 34 | 38 |

Table 19 - continued.

Table 19. Continued - page 2.
"In retrospect, do you think the Youth Waterfowl Hunting Day should have been scheduled before, at the mid-point of, or after the regular duck season?"

|  | Responses by Waterfowl Zones |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\frac{\text { North }}{(220)}$ | $\frac{\text { Central }}{(623)}$ | $\frac{\text { South }}{(221)}$ | $\frac{\text { Entire State }}{(1,083)}$ |
| Before | $44 \%$ | $43 \%$ | $48 \%$ | $44 \%$ |
| At mid-point | 13 | 17 | 9 | 14 |
| After | 6 | 10 | 13 | 10 |
| No opinion | 37 | 30 | 30 | 32 |

Responses by Administrative Regions

|  | $(82)$ | $(265)$ | $(181)$ | $(239)$ | $(39)$ | $(86)$ | $(172)$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Before | $40 \%$ | $45 \%$ | $39 \%$ | $46 \%$ | $46 \%$ | $55 \%$ | $44 \%$ |
| At mid-point | 16 | 18 | 15 | 14 | 15 | 12 | 8 |
| After | 6 | 7 | 11 | 11 | 8 | 9 | 14 |
| No opinion | 38 | 30 | 35 | 29 | 31 | 24 | 34 |

[^2]Table 20. Attitudes of duck hunters toward the dates for the regular duck season (Illinois 1997-98). Sample sizes are in parentheses.

Responses to the questions,
"The dates for Illinois' 1997-98 regular duck season were October 4December 2 in the North Zone, October 18-December 16 in the Central Zone, and November 8 -January 6 in the South Zone. If Illinois is offered another 60-day season, what do you think about using similar dates for the 1998-99 duck season?"

| Responses by Waterfowl Zones |  |  |  |
| :---: | :---: | :---: | :---: |
| $\frac{\text { North }}{(220)}$ | $\frac{\text { Central }}{(625)}$ | $\frac{\text { South }}{(226)}$ | $\frac{\text { Entire State }}{(1,090)}$ |
| $45 \%$ | $50 \%$ | $50 \%$ | $48 \%$ |
| 46 | 43 | 40 | 43 |
| 3 | 4 | 4 | 4 |
| 6 | 3 | 6 | 5 |

"If 60 days are allowed for the regular duck season again in 1998-99, on which of the following days would you prefer that the season begin and end."

Responses by Waterfowl Zones

|  | North | Central |  | South |
| :--- | :---: | :---: | :---: | :---: |
| $(221)$ | $(631)$ |  | Entire State |  |
| Thursday/Sunday | 428 | $41 \%$ | $45 \%$ | $(1,096)$ |
| Saturday/Tuesday | 40 | 42 | 33 | $42 \%$ |
| Other | 5 | 3 | 3 | 39 |
| No opinion | 13 | 14 | 19 | $4^{\text {a }}$ |
| O |  |  | 15 |  |

Responses by Administrative Reqions

|  | 1A | 1B | 2 | 3A | 3B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (83) | (267) | (181) | (242) | (39) | (87) | (175) |
| Thursday/Sunday | 48\% | 38\% | 43\% | 55\% | 46\% | 46\% | $46 \%$ |
| Saturday/Tuesday | 38 | 44 | 38 | 40 | 44 | 36 | 31 |
| Other | 4 | 3 | 4 | 1 | 5 | 2 | 3 |
| No opinion | 10 | 15 | 15 | 4 | 5 | 16 | 20 |

[^3]Table 21. Attitudes of waterfowl hunters toward the early September Canada goose season in north and central Illinois in 1997. Sample sizes are in parentheses.

Responses to the question:
"With approval from the U.S. Fish and Wildife Service, Illinois had an early Canada goose hunting season in 9 northeastern counties (September 1-14) and the remainder of the North and Central Zones (September 6-14) in 1997. The purpose of this experimental season was to provide sportsmen with additional opportunities to hunt local Canada geese and, in some areas, to increase the harvest of geese that have become nuisances. Did you like or dislike this early Canada goose season with respect to the counties listed below?"

|  | Responses by Waterfowl Zones |  |  |
| :---: | :---: | :---: | :---: |
|  | North | Central | Both Zones |
| In county of residence | (362) | (688) | (1,050) |
| Liked | 60\% | $42 \%$ | 48\% |
| Disliked | 14 | 18 | 16 |
| No opinion | 26 | 40 | 36 |
| In county where goose hunt most | (134) | (326) | (460) |
| Liked | 80\% | 54\% | 61\% |
| Disliked | 8 | 23 | 19 |
| No opinion | 12 | 23 | 20 |
| In county where duck hunt most | (180) | (524) | (708) |
| Liked | 55\% | 42\% | 45\% |
| Disliked | 16 | 17 | 17 |
| No opinion | 29 | 41 | 38 |


| Table 22. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Responses to the question: |  |  |  |  |
| "Would you prefer that the September teal season and the September Canada goose season overlap as much as possible or should they occur primarily on different dates?" |  |  |  |  |
|  |  |  |  |  |
|  | Responses by Zones (Sept. Teal Hunters) |  |  |  |
|  |  |  |  | All 3 |
|  | $\frac{\text { Northeast }}{(31)}$ | $\frac{\text { North }}{(23)}$ | $\frac{\text { Central }}{(94)}$ | $\frac{\text { Zones }}{(148)}$ |
| Overlap as much as possible | 77\% | 74\% | 68\% | 71\% |
| Occur primarily on different dates | 10 | 13 | 17 | 15 |
| No opinion | 13 | 13 | 15 | 14 |
|  | Responses by Zones |  | pt. Goose Hunters |  |
|  |  |  |  | All 3 |
|  | Northeast | North | Central | Zones |
|  | (90) | (56) | (149) | (295) |
| Overlap as much as possible | 59\% | 59\% | 54\% | 57\% |
| Occur primarily on different dates | 12 | 12 | 22 | 17 |
| No opinion | 29 | 29 | 24 | 26 |

# Table 23. Attitudes of goose hunters toward the type of Canada goose harvest monitoring system preferred in the North and Central Zones (Illinois 1997-98). Sample sizes are in parentheses. 

Responses to the question:
"The Department of Natural Resources has operated a Canada goose harvest monitoring system in 6 counties in the North Zone and 14 counties in the Central Zone since 1994-95. Goose hunters in these counties must have a special permit (issued free), and they must report the Canada geese they harvest via a toll-free phone number. The hunting season is closed in the North Zone if (and when) the quota is reached in the monitored counties. The same rule applies to the Central Zone. This system provides the potential for longer goose seasons, and at the same time, prevents over harvest of the goose population. As an alternative, the permit and call-in reporting requirements could be eliminated and the Canada goose harvest controlled with shorter seasons. With these facts in mind, which of the following do you prefer for the 1998-99 season?"

North Zone

| Quota | All |
| :---: | :---: |
| $\frac{\text { Counties }}{(79)}$ | $\frac{\text { Counties }}{(147)}$ |

Continue with a long (60-90 days) Canada goose hunting season and maintain the permit and call-in requirements

Revert to a short (30-50 days) Canada goose hunting season and eliminate the permit and call-in reporting requirements 16

No opinion
3
6
3
5

> Table 24. Attitudes of goose hunters toward the dates for the regular Canada goose season in the North zone (Illinois 1997-98). Sample sizes are in parentheses.

Responses to the questions:
"In the North Zone, the 1997-98 Canada goose season was scheduled to be open October 4-12, closed October 13-30, and open again October 31January 7."
"Did you like or dislike having the Canada goose season split into 2 time periods in the North Zone in 1997-98?"
(141)

## Liked

Disliked 56
No opinion 12
"In your opinion, were the scheduled open and closed periods too short, about right, or too long for Canada goose hunting in the North Zone in 1997-98?"

Oct. 4-12 Oct. 13-30 Oct. 31-Jan.7
Open Period Closed Period Open Period
$\begin{array}{llll}\text { No opinion } & 17 & 19 & 11\end{array}$

Too short (138)

About right 37
Too long 7
$\begin{array}{llll}\text { No opinion } & 17 & 19 & 11\end{array}$
$\begin{array}{llll}\text { No opinion } & 17 & 19 & 11\end{array}$

9\%
26
46
(139)

37\%
46 (137)611
Table 25. Attitudes of goose hunters toward having the Canada goose season overlap the duck season in the North and Central Zones (Illinois 1997-98). Sample sizes are in parentheses.
Responses to the question:
"Assuming that Illinois' duck season runs for 60 days again in 1998, and the Canada goose season is the same length or shorter than in 1997, which of the following options would you prefer for Canada goose hunting in the North and Central Zones?"

| North <br> Zone | Central <br> Zone |
| :--- | :--- |
| $(345)$ |  |

Split season that begins with the duck season ..... $24 \%$ ..... 19\%
Continuous season that begins with the duck season ..... 41 ..... 35
Continuous season that beginsseveral weeks after the openingof the duck season2638
No opinion ..... 9 ..... 8
Table 26. Attitudes of goose hunters toward the dates for the regular
Canada goose season in the Central fone (Illinois 1997-98)
Sample sizes are in parentheses.

Table 27. Attitudes of goose hunters toward the dates for the regular goose season in the South Zone (Illinois 1997-98). Sample sizes are in parentheses.

Responses to the questions:
"In the South Zone, the 1997-98 Canada goose season opened on November 15, which was 1 week after the opening of the duck season."
"What do you think about using a similar date (November 14) for opening the Canada goose hunting season in the South Zone in 199899?"

|  |  |  |  | Entire <br>  <br>  <br> $\frac{\text { RLQZ }}{}$ <br> $(46)$ |
| :--- | :---: | :---: | :---: | :---: |
|  | $\frac{\text { SIQZ }^{\text {b }}}{(310)}$ | $\frac{\text { Remainder }}{}$ |  | $(58)$ |
| South Zone |  |  |  |  |

"In your opinion, should the Canada goose hunting season in the South Zone open with the duck season or should it open later than the duck season?"

|  | RLOZ <br> $(46)$ | $\frac{\text { SIOZ }^{\mathrm{b}}}{(307)}$ | $\frac{\text { Remainder }}{(58)}$ | Entire <br> South Zone |
| :--- | :---: | :---: | :---: | :---: |
| With duck season | $15 \%$ | $20 \%$ | $19 \%$ | $19 \%$ |
| Later than duck <br> season | 81 | 72 | 76 | 73 |
| No opinion | 4 | 8 | 5 | 8. |

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

Table 28. Attitudes of goose hunters toward a 60-day season and 1 Canada goose per day versus a 40 -day season and 2 Canada geese per day (Illinois 1997-98). Sample sizes are in parentheses.

```
Responses to the question:
    "If Canada goose hunting regulations have to be more restrictive during
        the 1998-99 season, would you prefer a 60-day season with a daily bag
        of l Canada goose or a 40-day season with a daily bag of 2 Canada
        geese?"
```

    Responses by Waterfowl Zones
    | $\frac{\text { North }}{(148)}$ | $\frac{\text { Central }}{(342)}$ | $\frac{\text { South }}{(58)}$ | $\frac{\text { RLOZ }^{\text {a }}}{(48)}$ | $\frac{\text { SIOZ }}{(318)}$ | $\frac{\text { Entire State }}{(835)}$ |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $43 \%$ | $48 \%$ | $29 \%$ | $40 \%$ | $28 \%$ | $39 \%$ |
| 48 | 44 | 66 | 58 | 66 | 54 |
| 9 | 8 | 5 | 2 | 6 | 7 |

Responses by Administrative Regions

|  | 1A | 1B | 2 | 3 A | 3B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (40) | (165) | (153) | (71) | (37) | (39) | (37) |
| $\begin{aligned} & 60 \text { days } \\ & \& 1 \text { goose } \end{aligned}$ | 53\% | 45\% | 38\% | 56\% | 59\% | 38\% | 33\% |
| 40 days |  |  |  |  |  |  |  |
| \& 2 geese | 35 | 48 | 53 | 35 | 22 | 59 | 62 |
| No opinion | 12 | 7 | 9 | 9 | 19 | 3 | 5 |

${ }^{a}$ Rend Lake Quota Zone.
${ }^{\mathrm{b}}$ Southern Illinois Quota Zone.

## INSTRUCTIONS

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 1997-98 season.

If you did not hunt waterfowl in Illinois during the 1997-98 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 that you hunted ducks and the number of days that 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.


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

Thank you for your cooperation
Figure 1. The questionnaire used to conduct the 1997-98 Illinois Waterfowl Hunter Survey (continued).

## 1997-98 ILUTNOIS WATERFOWL HUNIER SURVEY

(see instructions on first page)

## GENERAL INFORMATION

1. What is your county of residence?
(If you reside outside of Illinois, write in the state)
2. Which of the following waterfowl stamps did you purchase for your personal use during the 1997-98 season? (circle numbers for all that apply)

> *Federal Migratory Bird and Conservation Stamp......... 1
> *Illinois Migratory Waterfowl Stamp......................... 2

$$
\begin{aligned}
& \text { *None (purchased no stamps)..................................... } 5
\end{aligned}
$$

3. Did you hunt waterfowl (ducks, geese, and/or coots) in Illinois during the 1997-98 season? (circle number for appropriate answer)

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

## SEPIEMBER TEAL SEASON

4. How many different days did you hunt teal during the September teal season in Illinois in 1997?.
5. How many teal did you personally harvest (kill and retrieve) during the September teal season in Illinois in 1997?................................

## YOUIH WATERFOWL HUNITNG DAY

6. Did you take 1 or more youths waterfowl hunting on the special Youth Waterfowl Hunting Day in Illinois in 1997? (circle number for appropriate answer)

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

7. If "Yes", a. How many youth waterfowl hunters did you take?
b. How many ducks and coots did the youth(s) harvest (kill and retrieve)?..................Total ducks

Total coots

## REGUIAR DUCK SEASON

8. How many different days did you hunt ducks during the regular duck season in Illinois in 1997-98. (NOTE: If you killed all your ducks coincidental to goose hunting, leave this space blank)....................
9. In which county or counties did you hunt ducks during the regular duck season in Illinois in 1997-98?... County hunted most

Second most.
Third most.
Figure 1. Continued - page 2.
10. List the number of ducks and coots you personally harvested during the regular duck season in Illinois in 1997-98. 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_ |

11. Did the "other ducks" you harvested include any canvasbacks? (circle number for appropriate answer)

$$
\text { Yes..... } 1 \text { No..... } 2 \text { If "Yes", how many?.... }
$$

EARLY CANADA GOOSE SEASON IN CENIRAL, NORIH, AND NORIHEAST ILLINOIS
NOIE: This special experimental season took place on September 1-14 in 9 counties in northeastern Illinois and on September 6-14 in the remainder of the North and Central zones (see map on first page).
12. Did you hunt Canada geese during the early (September) Canada goose season in Illinois in 1997?

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

13. If "Yes", a. How many different days did you hunt geese in September?. . $\qquad$
b. How many Canada geese did you personally harvest in Sept?. $\qquad$
c. In which county did you hunt most in September?...... $\qquad$

## REGULAR GOOSE SEASON

14. List the number of days you hunted geese and the number of geese you personally harvested during the regular goose season in Illinois in 1997-98. DO NOT include geese listed in question \#13b above. (NOTE: If you killed all your geese coincidental to duck hunting, leave the number of days blank)

|  | Days | Canada Geese | Snow/Blue Geese | Other Geese |
| :---: | :---: | :---: | :---: | :---: |
| *In Southern IL Quota Zone (see map) |  |  |  |  |
| *In Rend Lake quota Zone (see map). |  |  |  |  |
| *Other areas (write in name of each |  |  |  |  |
| county) : a. |  |  |  |  |
| b. |  |  |  |  |
|  |  |  |  |  |

15. How many geese did you knock down in sight but neither you nor anyone else could retrieve in Illinois in 1997-98?....................... $\qquad$

Figure 1. Continued - page 3.
16. Did you (or do you plan to) hunt snow/blue geese in Illinois after the Canada goose season has closed in 1997-98-i.e., February 1-March 1 in South Zone, February 21-March 10 in Central Zone, February 28-March 10 in North Zone?

Yes..... 1 No..... 2 Undecided..... 3

## YOUR OPINIONS

17. Would you prefer that the September teal season and the September Canada goose season overlap as much as possible or should they occur primarily on different dates? (circle number for appropriate answer)
*Overlap as much as possible....................... 1
*Occur primarily on different dates............ 2
*No opinion.................................................. 3
18. Illinois' 1997 Youth Waterfowl Hunting Day took place 7 days before the opening of the regular duck season in each zone. Thus, there were 6 days of no hunting between the Youth Waterfowl Hunting Day and the opening of the regular duck season. In your opinion, was this 6 -day no hunting period about right, or should it have been longer than 6 days or shorter than 6 days? (circle number for appropriate answer)
```
*Six days was about right 1
```

*Should have been longer than 6 days. ..... 2
*Should have been shorter than 6 days ..... 3
*Other (write in) .....  4
*No opinion ..... 5
19. In retrospect, do you think the Youth Waterfowl Hunting Day should have been scheduled before, at the mid-point of, or after the regular duck season? (circle number for appropriate answer)

$$
\text { Before..... } 1 \text { At mid-point...... } 2 \text { After..... } 3 \text { No opinion...... } 4
$$

20. The dates for Illinois' 1997-98 regular duck season were October 4December 2 in the North Zone, October 18-December 16 in the Central Zone, and November 8-January 6 in the South Zone. If Illinois is offered another 60-day season, what do you think about using similar dates for the 1998-99 duck season? (circle number for appropriate answer in the zone where you duck hunt most)

Too Early... 1 About Right... 2 Too Late... 3 No opinion... 4
21. If 60 days are allowed for the regular duck season again in 1998-99, on which of the following days would you prefer that the season begin and end? (circle number for appropriate answer)

```
*Begin on Thursday and end on Sunday.....................
*Begin on Saturday and end on Tuesday..................
*Other (write in)}\mp@subsup{}{}{\mathrm{ a }
*No opinion.....................................................
```

${ }^{0}$ Federal rules prohibit split duck seasons in Illinois.
Figure 1. Continued - page 4.
22. With approval from the U.S. Fish and Wildlife Service, Illinois had an early Canada goose hunting season in 9 northeastern counties (September 1-14) and the remainder of the North and Central zones (September 6-14) in 1997. The purpose of this experimental season was to provide sportsmen with additional opportunities to hunt local canada geese and, in some areas, to increase the harvest of geese that have become nuisances. Did you like or dislike this early Canada goose season with respect to the counties listed below? (circle appropriate answer for each county listed)

```
                                    Liked Disliked No Opinion
*In your county of residence.................................................
*In the county where you goose hunt most.....1.............................
*In the county where you duck hunt most......l..............................
```

23. The Department of Natural Resources has operated a Canada goose harvest monitoring system in 6 counties in the North Zone and 14 counties in the Central Zone since 1994-95. Goose hunters in these counties must have a special permit (issued free), and they must report the Canada geese they harvest via a toll-free phone number. The hunting season is closed in the North Zone if (and when) the quota is reached in the monitored counties. The same rule applies to the Central Zone. This system provides the potential for longer goose seasons, and at the same time, prevents over harvest of the goose population. As an alternative, the permit and call-in reporting requirements could be eliminated and the canada goose harvest controlled with shorter seasons. With these facts in mind, which of the following do you prefer for the 1998-99 season? (circle number for appropriate answer)
*Continue with a long (60-90 days) Canada goose hunting season
and maintain the permit and call-in requirements...................... 1
*Revert to a short (30-50 days) Canada goose hunting season and eliminate the permit and call-in reporting requirements. .2
*No opinion .3

NOIE: The next 4 questions (\#24, \#25, \#26, and \#27) deal with the dates for the Canada goose season in the North, Central, and South Zones. Please read these questions carefully and answer the ones that apply to the zone or zones in which you canada goose hunted during the 1997-98 season.
24. In the North Zone, the 1997-98 Canada goose season was scheduled to be open October 4-12, closed October 13-30, and open again October 31-January 7.

24a. Did you like or dislike having the Canada goose season split into 2 time periods in the North Zone in 1997-98? (circle number for appropriate answer)

$$
\text { Liked..... } 1 \text { Disliked..... } 2 \text { No opinion. .... } 3
$$

24b. In your opinion, were the scheduled open and closed periods too short, about right, or too long for Canada goose hunting in the North Zone in 1997-98? (circle appropriate answer for each time period)

Too Short About Right Too Long No Opinion
Oct 4-12 open period.........1.............2........................... 4
Oct 13-30 closed period.......1..............2............................. . . . 4
Oct 31-ปan 7 open period......1..............2............................. 4
Figure 1. Continued - page 5.
25. In the Central Zone, the 1997-98 canada goose season was scheduled to be open October 18-19, closed October 20-November 14, and open again November 15January 29.

25a. Did you like or dislike having the canada goose season split into 2 time periods in the Central Zone in 1997-98? (circle number for appropriate answer)

$$
\text { Liked..... } 1 \text { Disliked..... } 2 \text { No opinion..... } 3
$$

25b. In your opinion, were the scheduled open and closed periods too short, about right, or too long for Canada goose hunting in the Central Zone in 1997-98? (circle appropriate answer for each time period)

Tbo Short About Right Tbo Long No Opinion
Oct 18-19 open period.........1.............2............................ 4

Nov 15-Jan 29 open period....1............................................. 4
26. Assuming that Illinois' duck season runs for 60 days again in 1998, and the Canada goose season is the same length or shorter than in 1997, which of the following options would you prefer for canada goose hunting in the North and Central Zones? (circle number for appropriate answer for the zone or zones in which you hunted in 1997-98)

> | North Central |
| :--- |
| Zone Zone |

*Split season that begins with the duck season........................ 1
*Continuous season that begins with the duck season.....2......... 2
*Continuous season that begins several weeks after
the opening of the duck season............................................ 3
*No opinion......................................................................... . . 4
27. In the South Zone, the 1997-98 Canada goose season opened on November 15, which was 1 week after the opening of the duck season.

27a. What do you think about using a similar date (November 14) for opening the Canada goose hunting season in the South Zone in 1998-99? (circle number for appropriate answer)

Too early... 1 About right... 2 Too late... 2 No opinion... 3
27b. In your opinion, should the canada goose hunting season in the South Zone open with the duck season or should it open later than the duck season? (circle number for appropriate answer)

With duck season.. 1 Later than duck season. 2 No opinion. . 3
28. If Canada goose hunting regulations have to be more restrictive during the 1998-99 season, would you prefer a 60-day season with a daily bag of 1 Canada goose or a 40-day season with a daily bag of 2 canada geese? (circle number for appropriate answer)

60 days and 1 goose...1 40 days and $2 . g e e s e . . .2$ No opinion... 3
Thank you for your cooperation
POSTAGE IS PREPAID
Figure 1. Continued - page 6.

# ILLINOIS <br> DEPARTMENT OF <br> NATURAL RESOURCES 

524 South Second Street, Springfield 62701-1787
Jim Edgar, Governor Brent Manning, Director

## 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: lc
Enclosure
W1

Figure 2. 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 You.


JMV: WLA: lc
Enclosure W2

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


# ILLINOIS <br> DEPARTMENT OF <br> NATURAL RESOURCES 

524 South Second Street. Springfield 62701-1787
Jim Edgar, Governor Brent Manning, Director

## 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 4. The letter that accompanied the third mailing of the questionnaire.
1997-98 WATERFOWL HUNTING INFORMATION LICENSES, STAMPS, AND PERMITS
Hunters must have a current, valid hunting license, HIP regis-
tration number and Federal and State Migratory Watertowl
Stamps in their possession at all times when afield. All required
State stamps must be signed or aftixed on the hunting license
in the appropriate space. Federal stamps must be signed in ink
across the face of the stamp. Please refer to the $1997-98$ Digest
of Hunting \& Trapprng Regulations for exemptions and further Annual Fees Are (including agent's fees): Annual Fees Are (including agent's tees).
Resident Hunting License........................... 5.50
Non resident Hunting License 5 daytregular. $\$ 28.75 / \$ 50.75$ Non-resident Hunting License 5 dayfregular. $\$ 28.75 / \$ 50.75$
Resident Senior Hunting License . . . . . . . . . . . . . $\$ 4.00$
State Waterfowl Stamp and State Waterfow/ Stamp and

 -Canada goose permit must be issued with state watertowt stamp
and must have the same number as the stamp entered on it.

- Does not include agent's fee which may be 50e or 754 . A State Habitat Stamp is NOT required to hunt waterlowt.







 YOUTH WATERFOWL HUNTING DAY• puly mossessow



 O Lilinois Department of Natural Resources 21724 South Second Street • Springtield. IL 62701-1787 • 217782.6384




1997 ILLNOIS PERMIT TO HUNT CANADA GEESE
IN THE NORTHERN \& CENTRAL ILLINOIS QUOTA ZONES
This permit authorizes the person named below to hunt and possess Immediately upon taking possession of a This permit authorizes the person named below to hunt and pos
Canada geese in accordance with State and Federal waterfowl
 regulations. This permit must be in possession of the person named Quota Zones you must validate on back by punching with a balpoint below while hunting Canada geese. Failure to possess this permit pen or penci the date of each kill. Punch one date for each Canada
 punishable by fines of up to $\$ 500$ and could result in revocation of killed by calling toll free: 1-800-WET-LAND (938-5263) (TDD accesyour hunting license for up to five years. This permit and permit sible) within 24 hours of the kill. Have this card handy when caling. your hunting license for up to five years. This permit and permit
number are not transferable. It is unlawul to be in possession of another person's goose permit while hunting Canada geese.

| Pemittoe's Name |
| :--- |
| Date ol Birth (Month, Day. Year) |
| Signature of Permittoo |

This permit is valid only when all inlormation requested on both sides is completed with signature affixed.
Illinois Department of Natural Resources Illinois Department ol Natural Resources
The permit required to hunt Waterfowl Zones in Illinois during the 1997-98 season (see Fig. 5).


Figure 7. Illinois Department of Natural Resources Administrative Regions.

## Appendix A

Harvests of Canada geese and snow geese by county, zone, and administrative region in Illinois during the 1995-96 through 1997-98 seasons.

Table A1. Harvest of Canada geese by waterfowl zone and county during the regular goose season in Illinois in 1995-96 through 1997-98. Due to rounding to whole numbers, some small discrepancies may occur in these data.

| County | 1995-96 | 1996-97 | 1997-98 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| North Waterfowl Zone |  |  |  |  |
| Boone | 0 | 140 | 146 | 95 |
| Bureau ${ }^{\text {a }}$ | 425 | 127 | 171 | 241 |
| Carroll | 451 | 0 | 146 | 199 |
| Cook | 1,070 | 1,003 | 1,193 | 1,089 |
| DeKalb | 116 | 38 | 122 | 92 |
| DuPage | 1,018 | 800 | 1,217 | 1,012 |
| JoDaviess | 39 | 13 | 49 | 34 |
| Kane | 1,108 | 1,067 | 1,144 | 1,106 |
| Kendall | 387 | 127 | 146 | 220 |
| LaSalle ${ }^{\text {b }}$ | 150 | 160 | 146 | 152 |
| Lake | 1,791 | 1,397 | 2,532 | 1,907 |
| Lee | 296 | 140 | 97 | 178 |
| McHenry | 1,418 | 2,057 | 1,242 | 1,572 |
| Ogle | 129 | 0 | 195 | 108 |
| Rock Island ${ }^{\text {a }}$ | 206 | 127 | 365 | 233 |
| Stephenson | 52 | 279 | 0 | 110 |
| Whiteside | 348 | 102 | 146 | 199 |
| Will ${ }^{\text {b }}$ | 417 | 721 | 438 | 525 |
| Winnebago | 2,113 | 876 | 389 | 1,126 |
| North Zone Total | 11,534 | 9,174 | 9,884 | 10,197 |
| Central Waterfowl Zone |  |  |  |  |
| Adams | 528 | 559 | 341 | 476 |
| Brown | 0 | 0 | 0 | 0 |
| Bureau ${ }^{\text {a }}$ | 425 | 127 | 170 | 241 |
| Calhoun | 309 | 686 | 755 | 583 |
| Cass | 309 | 216 | 0 | 175 |
| Champaign | 0 | 317 | 195 | 171 |
| Christian | 64 | 330 | 390 | 261 |
| Clark ${ }^{\text {c }}$ | 20 | 70 | 24 | 38 |
| Coles | 13 | 51 | 0 | 21 |
| Cumberland | 0 | 0 | 0 | 0 |
| DeWitt | 193 | 292 | 341 | 275 |
| Douglas | 39 | 51 | 0 | 30 |
| Edgar | 0 | 0 | 146 | 49 |
| Ford | 116 | 0 | 0 | 39 |
| Fulton | 8,802 | 5,079 | 3,994 | 5,958 |
| Greene | 245 | 0 | 195 | 147 |
| Grundy | 335 | 1,130 | 609 | 691 |
| Hancock | 0 | 38 | 0 | 13 |
| Henderson | 296 | 470 | 146 | 304 |
| Henry | 464 | 1,244 | 317 | 675 |

Table Al. Continued - page 2.

| County | $1995-96$ | $1996-97$ | $1997-98$ | Mean |
| :--- | :--- | :--- | :--- | :--- | :--- |

Central Waterfowl Zone (continued)

| Iroquois | 26 | 89 | 365 | 160 |
| :--- | ---: | ---: | ---: | ---: |
| Jersey | 219 | 609 | 0 | 276 |
| Kankakee | 464 | 368 | 609 | 480 |
| Knox | 670 | 1,130 | 1,290 | 1,030 |
| LaSalle | 300 | 324 | 268 | 297 |
| Livingston | 1,031 | 89 | 365 | 495 |
| Logan | 26 | 63 | 122 | 70 |
| Macon | 39 | 305 | 170 | 133 |
| Macoupin | 284 | 241 | 97 | 207 |
| Madison | 619 | 990 | 657 | 755 |
| Marshall | 1,005 | 419 | 146 | 384 |
| Mason | 1,058 | 622 | 1,118 | 933 |
| McDonough | 541 | 0 | 0 | 320 |
| McLean | 309 | 190 | 487 | 367 |
| Menard | 39 | 0 | 0 | 13 |
| Mercer | 77 | 38 | 97 | 71 |
| Monroe | 348 | 190 | 146 | 228 |
| Montgomery | 77 | 38 | 49 | 55 |
| Morgan | 657 | 241 | 609 | 502 |
| Moultrie | 206 | 127 | 0 | 111 |
| Peoria | 889 | 533 | 195 | 539 |
| Piatt | 0 | 13 | 0 | 4 |
| Pike | 567 | 622 | 463 | 551 |
| Putnam | 52 | 63 | 73 | 63 |
| Rock Islanda | 206 | 127 | 390 | 241 |
| Sangamon | 219 | 89 | 511 | 273 |
| Schuyler | 283 | 178 | 49 | 170 |
| Scott | 90 | 0 | 73 | 54 |
| Shelby | 451 | 13 | 0 | 155 |
| St. Clair | 1,218 | 610 | 657 | 828 |
| Stark | 168 | 114 | 170 | 151 |
| Tazewell | 503 | 254 | 1,217 | 658 |
| Vermilion | 747 | 63 | 146 | 319 |
| Warren | 77 | 0 | 170 | 82 |
| Will | 834 | 1,463 | 877 | 1,058 |
| Woodford | 232 | 190 | 49 | 157 |
| Central Zone | Total | 26,689 | 21,065 | 19,258 |

Table A1 - continued.

Table A1. Continued - page 3.

| County | 1995-96 | 1996-97 | 1997-98 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| South Waterfowl Zone |  |  |  |  |
| Bond | 0 | 102 | 97 | 66 |
| Clark ${ }^{\text {c }}$ | 20 | 70 | 25 | 38 |
| Clay | 103 | 0 | 0 | 34 |
| Clinton | 335 | 165 | 0 | 167 |
| Crawford | 0 | 0 | 97 | 32 |
| Edwards | 39 | 0 | 0 | 13 |
| Effingham | 0 | 0 | 0 | 0 |
| Fayette | 1,418 | 609 | 3,774 | 1,934 |
| Gallatin | 0 | 51 | 0 | 17 |
| Hamilton | 0 | 0 | 0 | 0 |
| Hardin | 0 | 0 | 0 | 0 |
| Jasper | 644 | 51 | 0 | 232 |
| Johnson | 580 | 229 | 49 | 286 |
| Lawrence | 0 | 25 | 0 | 8 |
| Marion | 206 | 0 | 24 | 77 |
| Massac | 387 | 51 | 0 | 146 |
| Perry | 3,183 | 1,498 | 1,948 | 2,210 |
| Pope | 77 | 0 | 0 | 26 |
| Pulaski | 451 | 381 | 49 | 294 |
| Randolph | 1;508 | 495 | 609 | 871 |
| Richland | 64 | 38 | 146 | 83 |
| Saline | 361 | 470 | 0 | 277 |
| St. Clair ${ }^{\text {c }}$ | 1,218 | 610 | 658 | 829 |
| Wabash | 155 | 0 | 0 | 52 |
| Washington | 619 | 25 | 341 | 328 |
| Wayne | 1,070 | 292 | 0 | 454 |
| White | 13 | 267 | 0 | 93 |
| Subtotal | 12,451 | 5,429 | 7,817 | 8,566 |
| Rend Lake Quota Zone | 5,877 | 5,028 | 2,118 | 4,341 |
| Southern IL Quota Zone | 35,414 | 25,091 | 22,010 | 27,505 |
| South Zone Total | 53,742 | 35,548 | 31,945 | 40,412 |
| Unknown | 513 | 76 | 195 | 261 |
| Statewide Total | 92,478 | 65,864 | 61,282 | 73,208 |

${ }^{2} 50 \%$ in North Zone and $50 \%$ in Central Zone.
${ }^{\circ} 33 \%$ 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 1995-96 through 1997-98. Due to rounding to whole numbers, some small discrepancies may occur in these data.

| County | 1995-96 | 1996-97 | 1997-98 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Region 1A |  |  |  |  |
| Boone | 0 | 140 | 146 | 95 |
| Carroll | 451 | 0 | 146 | 199 |
| DeKalb | 116 | 38 | 122 | 92 |
| Jo Daviess | 39 | 13 | 49 | 34 |
| Lee | 296 | 140 | 97 | 178 |
| Ogle | 129 | 0 | 195 | 108 |
| Stephenson | 52 | 279 | 0 | 110 |
| Whiteside | 348 | 102 | 146 | 199 |
| Winnebago | 2,113 | 876 | 389 | 1,126 |
| Region 1A Total | 3,544 | 1,587 | 1,290 | 2,140 |
| Administrative Region 1B |  |  |  |  |
| Bureau | 850 | 254 | 341 | 482 |
| Fulton | 8,802 | 5,079 | 3,994 | 5,958 |
| Henderson | 296 | 470 | 146 | 304 |
| Henry | 464 | 1,244 | 317 | 675 |
| Knox | 670 | 1,130 | 1,290 | 1,030 |
| LaSalle | 450 | 483 | 414 | 449 |
| Marshall | 1,005 | 0 | 146 | 384 |
| McDonough | 541 | 419 | 0 | 320 |
| Mercer | 77 | 38 | 97 | 71 |
| Peoria | 889 | 533 | 195 | 539 |
| Putnam | 52 | 63 | 73 | 63 |
| Rock Island | 412 | 254 | 755 | 474 |
| Stark | 168 | 114 | 170 | 151 |
| Tazewell | 503 | 254 | 1,217 | 658 |
| Warren | 77 | 0 | 170 | 82 |
| Woodford | 232 | 190 | 49 | 157 |
| Region 1B Total | 15,488 | 10,527 | 9,374 | 11,796 |
| Administrative Region 2 |  |  |  |  |
| Cook | 1,070 | 1,003 | 1,193 | 1,089 |
| DuPage | 1,018 | 800 | 1,217 | 1,012 |
| Grundy | 335 | 1,130 | 609 | 691 |
| Kane | 1,108 | 1,067 | 1,144 | 1,106 |
| Kankakee | 464 | 368 | 609 | 480 |
| Kendall | 387 | 127 | 146 | 220 |
| Lake | 1,791 | 1,397 | 2,532 | 1,907 |
| McHenry | 1,418 | 2,057 | 1,242 | 1,572 |
| Will | 1,251 | 2,184 | 1,315 | 1,583 |
| Region 2 Total | 8,842 | 10,133 | 10,007 | 9,661 |

Table A2 - continued.

Table A2. Continued - page 2.

| County | 1995-96 | 1996-97 | 1997-98 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Region 3A |  |  |  |  |
| Adams | 528 | 559 | 341 | 476 |
| Brown | 0 | 0 | 0 | 0 |
| Calhoun | 309 | 686 | 755 | 583 |
| Cass | 309 | 216 | 0 | 175 |
| Christian | 64 | 330 | 390 | 261 |
| Greene | 245 | 0 | 195 | 147 |
| Hancock | 0 | 38 | 0 | 13 |
| Jersey | 219 | 609 | 0 | 276 |
| Logan | 26 | 63 | 122 | 70 |
| Macoupin | 284 | 241 | 97 | 207 |
| Mason | 1,058 | 622 | 1,118 | 933 |
| Menard | 39 | 0 | 0 | 13 |
| Montgomery | 77 | 38 | 49 | 55 |
| Morgan | 657 | 241 | 609 | 502 |
| Pike | 567 | 622 | 463 | 551 |
| Sangamon | 219 | 89 | 511 | 273 |
| Schuyler | 283 | 178 | 49 | 170 |
| Scott | 90 | 0 | 73 | 54 |
| Region 3A Total | 4,974 | 4,533 | 4,772 | 4,760 |
| Administrative Region 3B |  |  |  |  |
| Champaign | 0 | 317 | 195 | 171 |
| Clark | 40 | 140 | 49 | 76 |
| Coles | 13 | 51 | 0 | 21 |
| Cumberland | 0 | 0 | 0 | 0 |
| DeWitt | 193 | 292 | 341 | 275 |
| Douglas | 39 | 51 | 0 | 30 |
| Edgar | 0 | 0 | 146 | 49 |
| Ford | 116 | 0 | 0 | 39 |
| Iroquois | 26 | 89 | 365 | 160 |
| Livingston | 1,031 | 89 | 365 | 495 |
| Macon | 39 | 190 | 170 | 133 |
| McLean | 309 | 305 | 487 | 367 |
| Moultrie | 206 | 127 | 0 | 111 |
| Piatt | 0 | 13 | 0 | 4 |
| Shelby | 451 | 13 | 0 | 155 |
| Vermilion | 747 | 63 | 146 | 319 |
| Region 3B Total | 3,210 | 1,740 | 2,264 | 2,405 |

Table A2 - continued.

Table A2. Continued - page 3:

| County | 1995-96 | 1996-97 | 1997-98 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Region 4 |  |  |  |  |
| Bond | 0 | 102 | 97 | 66 |
| Clinton | 335 | 165 | 0 | 167 |
| Madison | 619 | 990 | 657 | 755 |
| Monroe | 348 | 190 | 146 | 228 |
| Randolph | 1,508 | 495 | 609 | 871 |
| St. Clair | 2,436 | 1,219 | 1,315 | 1,657 |
| Washington | 619 | 25 | 341 | 328 |
| Region 4 Total | 5,865 | 3,187 | 3,165 | 4,072 |
| Administrative Region 5 |  |  |  |  |
| Clay | 103 | 0 | 0 | 34 |
| Crawford | 0 | 0 | 97 | 32 |
| Edwards | 39 | 0 | 0 | 13 |
| Effingham | 0 | 0 | 0 | 0 |
| Fayette | 1,418 | 609 | 3,774 | I,934 |
| Gallatin | 0 | 51 | 0 | 17 |
| Hamilton | 0 | 0 | 0 | 0 |
| Hardin | 0 | 0 | 0 | 0 |
| Jasper | 644 | 51 | 0 | 232 |
| Johnson | 580 | 229 | 49 | 286 |
| Lawrence | 0 | 25 | 0 | 8 |
| Marion | 206 | 0 | 24 | 77 |
| Massac | 387 | 51 | 0 | 146 |
| Perry | 3,183 | 1,498 | 1,948 | 2,210 |
| Pope | 77 | 0 | 0 | 26 |
| Pulaski | . 451 | 381 | 49 | 294 |
| Richland | 64 | 38 | 146 | 83 |
| Saline | 361 | 470 | 0 | 277 |
| Wabash | 155 | 0 | 0 | 52 |
| Wayne | 1,070 | 292 | 0 | 454 |
| White | 13 | 267 | 0 | 93 |
| Subtotal | 8,751 | 3,962 | 6,087 | 6,267 |
| Rend Lake Quota Zone | 5,877 | 5,028 | 2,118 | 4,341 |
| Southern IL Quota Zone | 35,414 | 25,091 | 22,010 | 27,505 |
| Region 5 Total | 50,041 | 34,081 | 30,215 | 38,112 |
| Unknown | 513 | 76 | 195 | 261 |
| Statewide Total | 92,478 | 65,864 | 61,282 | 73,208 |

Table A3. Harvest of snow geese by waterfowl zone and county during the regular goose season in Illinois in 1996- 97 and 1997-98. Due to rounding to whole numbers, some small discrepancies may occur in these data.
County ..... 1996-97 ..... 1997-98
North Waterfowl Zone
Boone ..... 0
Bureau ..... 0
Carroll ..... 0
Cook ..... 0
DeKalb ..... 0
DuPage ..... 0
JoDaviess ..... 0
Kane ..... 0
Kendall ..... 0
LaSalle ${ }^{\text {b }}$ ..... 0
Lake ..... 0
Lee ..... 0
McHenry ..... 0
Ogle ..... 0
Rock Island ${ }^{\text {a }}$ ..... 0
Stephenson ..... 0
Whiteside ..... 0
Will ${ }^{\text {b }}$ ..... 0
Winnebago ..... 0
North Zone Total ..... 00
Central Waterfowl Zone
Adams ..... 0
Brown ..... 0
Bureau ..... 0
Calhoun ..... 122
Cass ..... 0
Champaign ..... 267
Christian ..... 195
Clark ${ }^{\text {c }}$ ..... 25 ..... 0
Coles ..... 0
Cumberland ..... 0
DeWitt ..... 0
Douglas ..... 0
Edgar ..... 0
Ford ..... 0
Fulton ..... 49
Greene ..... 0
Grundy ..... 49
Hancock 0 ..... 0

Table A. 3 - continued.

Table A3. Continued - page 2.

| County | 1996-97 | 1997-98 |
| :--- | :--- | :--- |

Central Waterfowl Zone (continued)
Henderson ..... 0
Henry ..... 0
Iroquois ..... 0
Jersey ..... 0
Kankakee ..... 0
Knox ..... 0
LaSalleb ..... 0 ..... 0
Livingston ..... 13 ..... 0
Logan 00
Macon ..... 00
Macoupin ..... 0
Madison ..... 0
Marshall ..... 0
Mason ..... 0
McDonough ..... 0
McLean ..... 0
Menard ..... 0
Mercer ..... 0
Monroe ..... 0
Montgomery ..... 24
Morgan ..... 49
Moultrie ..... 0
Peoria ..... 0
Piatt ..... 0
Pike ..... 219
Putnam ..... 0
Rock Island ${ }^{a}$ ..... 0
Sangamon ..... 24
Schuyler ..... 0 ..... 0
Scott ..... 00
Shelby ..... 0
St. Clair ${ }^{\text {c }}$ ..... 122 ..... 38
Stark0
Tazewell ..... 13 ..... 0
Vermilion ..... 0
Warren ..... 0
Will ..... 0
Woodford ..... 0 ..... 0
Central Zone Total ..... 2671,120

Table A3. Continued - page 3.
County 1996-97 1997-98
South Waterfowl Zone
Bond ..... 97
Clark ${ }^{c}$ ..... 25 ..... 0
Clay ..... 0 ..... 0
Clinton ..... 24
Crawford ..... 0 ..... 0
Edwards ..... 0 ..... 0
Effingham ..... 0
Fayette ..... 432 ..... 1,242Gallatin0
Hamilton ..... 00
Hardin ..... 0 ..... 0
Jasper ..... 0
Johnson ..... 25 ..... 0 ..... 0
Lawrenc ..... 0
Lawrence ..... 0
0
Marion ..... 0
0
Massac ..... 0
216
Perry ..... 536
0
Pope ..... 0
762
Pulaski ..... 0
51
Randolph ..... 0
Richland ..... 0 ..... 0
Saline ..... 25 ..... 0
St. Clair ${ }^{c}$ ..... 38 ..... 122
Wabash ..... 0 ..... 0
Washington ..... 25 ..... 560
Wayne ..... 102
White ..... 13
Subtotal ..... 1,739
subtotal 2,5810559
Rend Lake Quota Zone219
1,498
Southern IL Quota Zone ..... 2,0213,796
South Zone Total4,821
Unknown ..... 0 ..... 0
Statewide Total 4,063 ..... 5,941
${ }^{2} 50 \%$ 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.


[^0]:    ${ }^{1}$ Illinois Natural History Survey.

[^1]:    ${ }^{a}$ See Figure 7.
    ${ }^{\mathrm{b}}$ Excludes ducks harvested coincidentally to goose hunting. ${ }^{9}$ Number of ducks harvested coincidentally to goose hunting.
    ${ }^{\mathrm{d}}$ The $95 \%$ confidence interval is $\pm 47,700$.
    ${ }^{\mathrm{e}}$ Includes 145,533 mallards, 44,678 wood ducks, and 100,950 other ducks (including 5,749 canvasback).
    ${ }^{\mathrm{f}}$ The $95 \%$ confidence interval is $\pm 3,115$.

[^2]:    ${ }^{\text {a }}$ Includes: discontinue YWHD (1.3\%), make YWHD part of the regular duck season ( $0.6 \%$ ), have YWHD later in season ( $0.8 \%$ ), and have YWHD during September teal season (0.2\%).

[^3]:    ${ }^{a}$ Incluaes: Saturday/Sunday (2.5\%), plus 6 miscellaneous combinations (1.0\%) .

