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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

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Abstract: Purchasers of the previous year's (1995) Illinois Migratory Waterfowl Stamp were sampled via mail questionnaire to obtain information on waterfowl harvest, hunter activity, and attitudes toward selected issues, during the 1996 season ( 62,417 stamps were sold in 1996). Of 2,741 respondents ( $69 \%$ response), 478 (17\%) did not purchase a stamp again in 1996. Thus, the sample size was reduced to 2,263 respondents, $88 \%$ of which hunted waterfowl in Illinois in 1996-97. Eighty-eight percent of these waterfowl stamp purchasers also purchased a 1996 Illinois Habitat Stamp. An estimated 56,956 hunters ( $3 \%$ more than in 1995) expended 836,793 days afield (5\% less than in 1995) and harvested 376,248 waterfowl (25\% less than in 1995). The ratio of duck hunters to goose hunters was 1.20:1 in 1996-97. During the September teal season, 8,964 hunters spent 22,825 days afield and harvested 11,565 teal ( $41 \%$ less than in 1995). On Youth Waterfowl Hunting Day, 2,749 adults took 4,353 youths afield, and 3,171 ducks and 230 coots were harvested. During the regular duck season ( 50 days), 44,219 hunters expended 460,517 days afield and harvested 284,525 ducks (25\% less than in 1995) and 3,286 coots. Among duck hunters, $41 \%$ used private areas, $27 \%$ used public areas, and $32 \%$ used both types of areas. During the experimental early September canada goose season, held in the North and Northeastern Zones, 3,902 hunters spent 10,185 days afield and harvested 2,924 Canada geese. During the regular goose season, 36,582 hunters devoted 339,253 days afield to harvest 65,854 Canada geese ( $29 \%$ less than in 1995) and 4,939 other geese. The Canada goose harvest included 25,041 taken in the Southern Illinois Quota Zone, 5,028 taken in the Rend Lake Quota zone, 6,210 taken in North quota Zone Counties, and 13,090 taken in Central Quota Zone counties, which collectively accounted for $75 \%$ of the statewide harvest. The estimated canada goose harvest in the North and Central Quota Zone Counties was $32 \%$ less than the harvest recorded for these counties via the phone-in monitoring system. Statewide, $57 \%$ of the goose hunters used private areas, $10 \%$ used public areas, and $33 \%$ used both

[^0]types of areas. Among goose hunters, 7,575 (21\%) hunted (or planned to hunt) snow geese during the late (to March 10) season in Illinois. The harvests of Canada geese and snow geese are presented by county, zone, and region in Appendix $A$.

Majorities $(>50 \%$ ) of duck hunters thought the Youth Waterfowl Hunting day was a good idea and believed the dates for the regular duck season were about right. However, duck hunters did not support the concept of having split duck seasons in Illinois. Majorities of both duck hunters and goose hunters preferred quality hunting over quantity hunting. Majorities of goose hunters were supportive of the early September Canada goose season, and preferred a 50-day season with 2 Canada geese to a 70-day season with 1 Canada goose. Illinois waterfowl hunters were $98.5 \%$ male and averaged 42 years of age following the 1996 season.

The purpose of this study was to collect information via
mail questionnaire from a systematic sample of waterfowl hunters in Illinois following the 1996-97 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 $1996-97$ 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).

## METHODS AND MATERIALS

The mailing list for the 1996-97 questionnaire was compiled by systematically selecting stubs from the sales of 39,947 of the previous year's (1995) Illinois Migratory Waterfowl stamps. The stamps were printed with matching (i.e., same I.D. numbers) stubs attached. Vendors were instructed to write each stamp purchaser's name and mailing address on the stub, and to return the stubs to the Department of Natural Resources (DNR) Permit

Office in Springfield. Persons on the mailing list were notified via letter postmarked 25 October 1996 that they would receive a questionnaire at the close of the hunting season. The notice included a form for keeping records of hunting activity and waterfowl harvested (Fig. 2).

Methods used to mail the 1996-97 Illinois Waterfowl Hunter Survey questionnaire and to process data from returned questionnaires were similar to those employed in previous years (Anderson 1983). On 24 January 1997, the questionnaire and a cover letter (Figs. 1 and 3) were mailed to 3,974 purchasers (3,469 residents and 505 non-residents) of the Illinois Migratory Waterfowl Stamp. Non-respondents were mailed 2nd and 3rd copies of the questionnaire and accompanying letters (Figs. 4 and 5) on 7 March and again on 16 April, respectively. As of 5 June 1997, 2,741 usable questionnaires were returned for a response rate of 69\%. In 1986-1995, when the mailing lists were comparable to the 1996-97 list, response rates were 68-75\%.

Procedures used to estimate numbers of hunters, days afield, waterfowl harvested, cripples lost, and confidence intervals were as described in the final report for the 1984 survey (Anderson 1986), with the following exceptions. The adjustment factors for stamp-exempt hunters were changed from 1.182 to 1.085 for duck hunters, from 1.218 to 1.087 for goose hunters, and from 1.200 to 1.086 for all waterfowl hunters (Anderson 1986:7). These changes were necessary because, beginning in 1994, senior ( $\geq 65$ years) hunters were no longer exempt from purchasing the Illinois Migratory Waterfowl Stamp. The adjustment factors accounted for
the number of stamp-exempt hunters relative to the number of stamp-purchasing hunters. Thus, the latter covered hunters 16-64 years of age in 1981-1993 and hunters $\geq 16$ years (i.e., included seniors) in 1994-1996. The 1996-97 estimates of waterfowl harvest and hunter activity were based on a sales of 62,417 of the 1996 Illinois Migratory Waterfowl Stamps.

## SEASON LENGTHS AND BAG LIMITS

Illinois' early teal season took place on 7-15 September 1996, 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" in 1996. 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 limit (ducks, mergansers, and coots) was the same as that in effect during the regular duck season. Goose hunting was not allowed. Illinois' youth hunt occurred 7 days prior to the opening of the regular duck season: October 5 in the North Zone, October 19 in the Central Zone, and November 2 in the South Zone.

The regular duck season was 50 days in length in 1996, and the bag limit was 5 ducks ( 4 mallards) per day using the Conventional System. Legal shooting time was $1 / 2$ hour before sunrise to sunset (Fig. 6). Except for changing the bag limit
for redheads from 1 to 2 , Illinois' duck hunting regulations did not change from 1995 to 1996.

The early September Canada goose season was offered in 9 counties (Cook, DuPage, Grundy, Kane, Kendall, Kankakee, Lake, McHenry, and Will) in northeastern Illinois, plus all the remaining counties in the North Zone, in 1996. The dates for this season were 7-15 September (same as teal season), and the bag limit was 5 Canada geese per day in the northeastern counties and 2 Canada geese per day in the remainder of the North Waterfowl Zone. Legal shooting hours were $1 / 2$ hour before sunrise to sunset.

For Canada geese, the 1996 season extended for 93 days in the North Zone and Central zone (except as described below). These seasons were continuous. The Canada goose harvest monitoring system that was implemented in 18 counties in the North and Central zones in 1994 was continued in 1996-97 (Fig. 6). Goose hunters in these counties were required to obtain a special permit (Fig. 7), which was issued free with purchase of the Illinois Migratory Waterfowl Stamp. Canada goose hunters were required to report Canada geese harvested daily utilizing a toll-free phone number (1-800-WETLAND) in these select counties. The quotas were 11,000 Canada geese for the North Quota zone Counties and 17,600 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 this monitoring system, the Canada goose season was discontinued in the North zone after 77 days of hunting in 1996.

The Canada goose season extended for 84 days in the South Waterfowl Zone in 1996-97. In the Southern Illinois and Rend Lake Quota Zones, the seasons were 84 days or when 36,600 and 10,400 Canada geese were harvested, respectively. The statewide quota was 94,900 Canada geese (compared to an all-time high of 172,600 in 1995). The bag limit was 2 Canada geese per day (3 in 1995) statewide.

The FWS permitted the states to have a late snow/blue goose hunting season in 1996-97. In Illinois, this late season took place 8 February-2 March in the South Waterfowl Zone and 25 February-10 March in the Central Waterfowl Zone. The bag limit was 10 geese per day.

FINDINGS
Of the 2,741 respondents to the questionnaire, 478 (17\%) did not purchase an Illinois Migratory Waterfowl Stamp again in 1996. The other 2,263 respondents purchased an average of 1.08 stamps each: $93 \%$ purchased 1 stamp, 6\% purchased 2 stamps, 1\% purchased 3-5 stamps, and $<1 \%$ purchased $\geq 6$ stamps. Of the 2,263 stamp purchasers, 1,986 (88\%) hunted waterfowl in Illinois during the 1996 season. Eighty-eight percent of these waterfowl stamp purchasers also purchased a 1996 Illinois Habitat Stamp.

Waterfowl Harvest and Hunter Activity
An estimated 56,956 waterfowl hunters ( $3 \%$ more than in 1995) were active in Illinois during the 1996 season (Table 1). They spent 836,793 days afield (9\% less than in 1995) and harvested 376,248 waterfowl (25\% less than in 1995).

Of the 56,956 hunters who were active in $2996,36 \%$ hunted ducks only, $23 \%$ hunted geese only, and $41 \%$ 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 1988-1996. Conversely, the percentage of waterfowl hunters who pursued geese increased from an average of $42 \%$ in 1981-1987 to an average of $69 \%$ in 19881996 (Table 2).

September Teal Season. An estimated 8,964 hunters spent 22,825 days afield, and harvested 11,565 teal during Illinois' 9-day September teal season in 1996 (Table 3). There were more teal hunters (2,062), more days afield (5,356), and more teal harvested $(3,644)$ in Administrative Region $3 A$ than in any other region. Region $1 B$ was a close 2 nd in all three categories.

The 1996 estimates for teal hunters, days afield, and teal harvested were $2 \%, 8 \%$, and $41 \%$ less, respectively, than comparable estimates for 1995 (Table 4). The 1996 estimates were also 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 1996 were 0.51 teal per hunter per day afield and 1.29 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 relatively poor in Illinois in 1996.

The FWS estimated that Illinois' September teal harvest decreased from 10,500 birds in 1995 to 9,230 birds in 1996
(Martin and Padding 1997).
Youth Waterfowl Hunting Day. An estimated 2,749 adults took 4,353 youths afield on this special day in Illinois in 1996 (Table 6). Sixty-two percent of the parties included 1 youth and $26 \%$ included 2 youths. The youths harvested 3,171 ducks (0.73 per hunter) and 230 coots ( 0.05 per hunter). Sixty-eight percent of the youths harvested at least 1 duck.

Regular Duck Season. An estimated 44,219 individuals hunted ducks during the regular duck season in Illinois in 1996 (Table 7). These hunters harvested 284,525 ducks in 460,517 days afield. There were more duck hunters $(10,825)$, and more ducks were harvested $(80,996)$, in Region $1 B$ than in any other region. However, Region 3A was credited with the most days spent afield (122,003). Compared to the previous year, the number of duck hunters increased 4\%, days afield decreased 5\%, and duck harvest decreased 25\%, in 1996 (Table 8).

The 284,525 ducks harvested in Illinois in 1996 included an estimated 163,311 mallards, 38,783 wood ducks, and 82,431 other ducks (including 4,348 canvasback). The FWS estimated that 293,537 total ducks were harvested in the state during the regular duck 1996 season, which included 162,238 mallards, 36,633 wood ducks, and 94,666 other ducks (including 3,111 canvasback) (Martin and Padding 1997). The FWS estimates indicated that duck harvest increased $11 \%$ in Illinois, $4 \%$ in the Mississippi Flyway, and 7\% in the United States, from 1995 to 1996.

Statewide, hunter success rates were 0.58 duck per hunter per day afield and 6.03 ducks per hunter per season in 1996
(Table 9). From 1981 to 1995, success rates ranged from 0.48 to 0.74 duck per hunter per day afield and from 4.30 to 8.00 ducks per hunter per season. Based on these comparisons, duck hunters had about "average" success in Illinois in 1996.

Two-thirds (67\%) of the duck hunters were active in a single county, $24 \%$ were active in 2 counties, and $9 \%$ were active in $\geq 3$ counties. Similarly, 60\% of the duck hunters were active in their county of residence and $37 \%$ were active only in their county of residence. Statewide in 1996, $41 \%$ of the duck hunters were active on private areas, $27 \%$ were active on public areas, and $32 \%$ were active on both types of areas (Table 10).

Coot Hunting. The coot harvest was estimated at 3,286 birds in Illinois in 1996, 3\% less than the estimated harvest for 1995 (Tables 7 and 8). The FWS estimated the Illinois coot harvest at 2,696 birds for the 1996 season, up $147 \%$ from that agency's estimate for 1995 (Martin and Padding 1997).

September Canada Goose Season. This experimental early Canada goose hunting season took place on 7-15 September (same as teal season) in 9 counties in northeastern Illinois, plus all of the remaining counties in the North Waterfowl Zone. An estimated 3,902 hunters spent 10,185 days afield, and harvested 2,934 Canada geese during this early season (Table 11). Lake and McHenry counties accounted for $50 \%$ of the harvest. In 1995, when the experimental September season took place on 1-14 September but was limited to the 9 northeastern counties, an estimated 2,591 hunters spent 9,502 days afield and harvested 2,784 Canada geese.

Regular Goose Season. An estimated 36,582 goose hunters were active during the regular goose season in Illinois in 199697, and they spent 339,253 days afield (Table 12). Among these hunters, $57 \%$ used private areas, $10 \%$ used public areas, and $33 \%$ used both types of areas (Table 13). The Southern Illinois Quota Zone (Alexander, Jackson, Union, and Williamson counties), located in Region 5, accounted for $41 \%$ of the goose hunters and $34 \%$ of the days afield. The Rend Lake Quota Zone (Franklin and Jefferson counties), also in Region 5, accommodated $8 \%$ of the hunters and $5 \%$ of the days afield. The remainder of the state was associated with $64 \%$ of the hunters and $61 \%$ of the days afield. Statewide, the number of goose hunters and their days afield increased 65\% and 221\%, respectively, from 1985 to 1996 (Table 14).

There were an estimated 65,864 Canada geese and 70,803 total geese harvested during the regular goose season in Illinois in 1996-97 (Table 12). The Canada goose harvest decreased 29\% between 1995-96 and 1996-97 (Table 14). The FWS estimated that 100,636 Canada geese and 105,344 total geese were taken in the state in 1996-97 (Martin and Padding 1997).

Canada goose harvest in the Southern Illinois Quota Zone was tabulated (via daily registration forms) at 25,091 birds during the 1996-97 season (Whitton 1997a). This represents $38 \%$ of the statewide harvest of Canada geese during the regular goose season. In the Rend Lake Quota Zone, an estimated 5,028 Canada geese (8\% of state's total harvest) were taken. This estimate was $21 \%$ more than the projected harvest (i.e., projected from the
reported harvest on public hunting areas) of 4,140 Canada geese for the entire Rend Lake Quota Zone (Whitton 1997b).

The Canada goose harvest in the 18 North and Central Quota Zone Counties was estimated at 19,300 birds (Tables 15 and 16). In comparison, the phone-in monitoring system tabulated a harvest of 28,301 Canada geese in these counties (Table 16). Thus, the two procedures--the mail-questionnaire survey and the phone-in monitoring system--produced Canada goose harvest estimates for the 18 Quota Counties that differed by $32 \%$ in 1996-97.

It is noteworthy that 24 of Illinois' 102 counties were covered by a Canada goose harvest monitoring system during the 1996-97 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 $75 \%$ of the Canada goose harvest in Illinois in 1996-97 (Table 17). The harvest of Canada geese are presented by county, zone, and administrative region in 1994-1996 in Appendix A (Tables Al and A2) .

Statewide, hunters experienced an overall success rate of 0.20 goose per hunter per day afield and 1.86 geese per hunter per season in 1996-97 (Table 12). In the Southern Illinois Quota Zone, success was 0.24 and 1.78 geese, respectively. similarly, hunter success was 0.33 and 1.87 geese at Rend Lake, and 0.17 and 1.53 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 1995 (Table 18).
Snow/Blue Goose Hunting. The statewide snow/blue goose harvest was estimated at 4,063 birds during the 1996-97 season (Table 12). Most (3,632 or 89\%) of the harvest occurred in Administrative Region 5 (including the Southern Illinois and Rend Lake Quota Zones). The Snow/blue goose harvest is presented by zone and county in Appendix A (Table A3). These estimates for snow/blue geese are minimal because the 1996-97 Waterfowl Hunter Survey was initiated before the late snow/blue goose season was under way. An estimated 7,575 ( $21 \%$ ) of the state's goose hunters either hunted or anticipated going hunting during this late season.

Crippling Losses. Crippling losses (birds knocked down but not retrieved) were estimated at 64,324 ducks, 16,641 geese, and 430 coots in Illinois during the 1996-97 hunting season (Table 19). These estimates, which are considered to be indices and not actual numbers, equate to 22.6 ducks, 23.5 geese, and 13.1 coots lost per 100 harvested. The 1995 crippling rates for ducks and coots were the lowest observed since the Illinois Waterfowl Hunter Survey was initiated in 1981.

Nationwide crippling rates for ducks and geese during the 1996 season, as measured via hunter questionnaire surveys conducted by the FWS since 1952, were among the lowest ever recorded (Table 20).

National Migratory Bird Harvest Information Program. Eighty percent of both duck hunters and goose hunters said they were aware of the National Migratory Bird Harvest Information Program,
called HIP for short, during the 1996 season (Table 21). Similarly, $77 \%$ of the duck hunters and $77 \%$ of the goose hunters claimed they registered with HIP for the 1996 season. Or, expressed another way, $23 \%$ of the hunters admitted they were not in compliance with the requirement to register with HIP. These data suggest that most of the hunters who failed to comply with the HIP registration requirement for the 1996 season did so because they were unaware of the program.

Attitudes and Opinions of Hunters
Youth Waterfowl Hunting Day. The vast majority ( $76 \%$ ) of the state' duck hunters thought the Youth Waterfowl Hunting Day (YWHD) was a good idea (Table 22). Similarly, a majority (53\%) of the hunters thought the 6-day no hunting period between the YWHD and opening day of the regular duck season was about the right length. These attitudes prevailed in all waterfowl zones and administrative regions in the state.

Dates for Regular Duck Season. According to responses to question \#21, majorities of the duck hunters in the North (62\%) and Central (53\%) Waterfowl Zones thought the dates used for the regular duck season in 1996 were about right (Table 23). A plurality of the duck hunters in the South Waterfowl Zone (46\%) expressed these same feelings. However, nearly as many (43\%) hunters in the South Zone thought the dates were too early in 1996. Ironically, the duck season extended to 28 December in southern Illinois, which was the latest Illinoisans have hunted ducks in modern times.

If the length of the regular duck season is extended from 50 to 60 days in 1997, a plurality (47\%) of the hunters would prefer adding the extra days to the back of the season (Table 23). The sentiment for adding the extra days to the back of the season was strongest in the southern counties. However, hunters in northern Illinois expressed support for allocating the extra days to both the front and back of the season.

When the idea of splitting the regular duck season into 2 time periods was presented to the hunters, pluralities in the North Waterfowl Zone (45\%) and Central Waterfowl Zone (48\%) reacted negatively (Table 24). However, a plurality (49\%) of the hunters in the South Waterfowl zone were in favor of a split duck season.

Quantity Versus Quality for Waterfowl hunters. A majority
(52\%) of the duck hunters felt that management on public areas should emphasize quality over quantity (Table 25). About onethird (34\%) of the duck hunters thought management should utilize a blend whereby some areas emphasize quantity and others emphasize quality. When asked whether they preferred a crowded area with a $75 \%$ chance of personally hunting or an uncrowded area with a $25 \%$ chance of personally hunting, an overwhelming majority opted for the latter. Goose hunters expressed essentially the same views as duck hunters regarding quantity versus quality for management on public areas (Table 26). Clearly, Illinois' waterfowl hunters strongly prefer quality-managed areas with restricted access to quantity-managed areas with relatively unlimited access.

Early September Canada Goose Season. Statewide, majorities of the waterfowl hunters were supportive of having an early September Canada goose season for purposes of sport (61\%) and to increase harvest of nuisance geese (67\%) (Table 27). The hunters supported the early season in their county of residence (55\%), in the county where they goose hunted most (55\%), and in the county where they duck hunted most (52\%). Hunters in northern and central Illinois voiced the strongest support for the September season. Although southern hunters were supportive conceptually, they were unsupportive of the early season in their county of residence, in the county where they goose hunted most, and in the county where they duck hunted most.

Tradeoffs Between Length of Canada Goose Season and Daily
Bag Limit. In the event of more restrictive regulations in 199798, goose hunters would much prefer having a 50-day season and 2 Canada geese per day to a 70-day season and 1 Canada goose per day (Table 28). These feelings were prevalent throughout all zones and regions in the state.

Dates for Late Snow/blue Goose Season. Majorities or pluralities (45-57\%) of the goose hunters in the various zones liked the dates used for the late snow/blue goose season in 199697 (Table 29). Lesser proportions (36-42\%) of the hunters prefer shifting days in December/January to February/March. Sentiment for shifting to later dates was strongest in the Southern Illinois Quota Zone.

Food Production on Goose Refuges. Goose hunters were asked to express their opinions of the amount of food that should be
grown on goose refuges in the Southern Illinois Quota Zone. A plurality (44\%) of them responded by checking "...barely enough feed to support the geese", and an additional $31 \%$ checked "...extra feed as a hedge against unplanned emergencies (Table 30). Relatively few (17\%) hunters checked "...less than enough feed to support the geese" or "...essentially no food for the geese". These views were persistent regardless of whether the hunters spent most of their time near Horseshoe Lake Refuge, Union County Refuge, or Crab Orchard National Wildlife Refuge.

Sex and Age of Waterfowl Hunters

The sex and age of Illinois Migratory Waterfowl Stamp purchasers and waterfowl hunters are summarized in Table 31. Stamp purchasers were $98.5 \%$ male and $1.5 \%$ female. Active hunters were $98.8 \%$ male and $1.2 \%$ female.

Stamp purchasers averaged 41.8 years of age. Active duck hunters averaged 40.4 years, goose hunters averaged 40.3 years and all waterfowl hunters averaged 41.2 years. One-half (53\%) of the hunters were $31-50$ years of age.

## DISCUSSION

Because of improved water and habitat conditions in prairie Canada and the northern U.S., the fall flight of ducks increased from 59 million in 1993 to 70 million in 1994 to 77 million in 1995 to 90 million in 1996 (Canadian Wildlife Service and U.S. Fish and Wildlife Service 1994, 1995, 1996, 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. The daily bag limit was increased from 3 ducks (2 mallards) in 1988-1994 to 5 ducks (4 mallards) in 1995 and 1996.

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, 1995, and 1996, despite the fact that regulations were more liberal during the latter 2 years. The duck harvest increased 13\% from 1993 to 1994 and 53\% from 1994 to 1995, but decreased 25\% from 1995 to 1996. The decrease in 1996 was caused primarily by a decrease in hunter success (Table 9).

Although the goose harvest during the regular season in 1996-97 may be classified as "average", it pales in comparison to the record number of geese taken the previous year (Table 14). Hunter success was also lower in 1996-97 than in 1995-96 (Table 18). Thus, it comes as no surprise that many waterfowlers viewed the 1996-97 goose season as a "downer", which it was relative to the previous season. However, the 73,737 geese taken in 1996-97 (regular season plus early September season) constitutes a respectable harvest of geese for Illinois. The 1996-97 goose hunting season was neither extra good nor extra bad--by all accounts it was average.

The Canada goose harvest monitoring system implemented in the North and Central Waterfowl Zones was in effect in 18 counties in 1994-95 through 1996-97 (Fig. 6). Goose hunters in
these counties had to obtain a special permit (issued free with purchase of the Illinois Migratory Waterfowl Stamp), which was used to record each goose harvested immediately after it was reduced to the bag. In addition, the hunters had to daily report the number of Canada geese they harvested via a toll-free phone number. With this monitoring system, harvests tabulated for Canada geese were within $1 \%$ of estimates produced by the mailquestionnaire survey for the Quota Counties in 1994-95 (Anderson et al. 1996). However, agreement was not as good in 1995-96 and 1996-97, when the phone-in monitoring system and mailquestionnaire survey differed by $25 \%$ (Anderson et al. 1997) and 32\% (Table 16), respectively. In both years, the mailquestionnaire survey under estimated the Canada goose harvest in the 18 Quota Counties in northern and central Illinois.

When waterfowl hunters were asked to express their opinions about having an early September Canada goose hunting season for sport and to increase harvest of nuisance geese, majorities (>50\%) of those in the North and Central Waterfowl Zones agreed with the concept (Table 27). Similarly, majorities of these hunters were supportive of having the September season in their county of residence, in the county where they goose hunt most, and in the county where they duck hunt most. It is evident that these hunters are in favor of the September Canada goose hunting season. For hunters in the South Waterfowl Zone, the attitude was somewhat different: they supported the September Canada goose season conceptually, but did not support having it in their county of residence, in the county where they goose hunt most, or
in the county where they duck hunt most.
Both duck and goose hunters expressed considerable support for emphasizing quality (fewer hunters and less crowding) in managing public hunting areas in Illinois (Tables 25 and 26). Statewide, 52-53\% of the hunters chose quality and a mere $3-4 \%$ opted for quantity. In addition, overwhelming majorities (7376\%) said they would prefer uncrowded areas even if they personally have only a $25 \%$ chance of hunting. These attitudes were consistent in all zones and regions in the state. Based on these findings, we recommend that the DNR experiment with management practices that emphasize quality waterfowl hunting on selected areas in north, central, and southern Illinois.

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Table 1. Summary of Illinois Migratory Waterfowl Stamps purchased, hunter activity, and waterfowl harvest in Illinois from 1981 through 1996 hunting seasons.

| Season <br> (Year) | Stamps <br> Purchased | Hunters | Days <br> Afield | Waterfowl <br> Harvested |
| :--- | :--- | :--- | :--- | :--- |
| 1981 | 61,929 | 63,652 | 874,730 | 413,264 |
| 1982 | 57,691 | 58,766 | 795,807 | 392,897 |
| 1983 | 56,162 | 58,240 | 815,523 | 475,601 |
| 1984 | 55,250 | 56,533 | 748,390 | 420,357 |
| 1985 | 55,670 | 56,899 | 699,113 | 392,253 |
| 1986 | 59,734 | 61,876 | 887,446 | 467,164 |
| 1987 | $58,803(5,550)^{\text {b }}$ | 60,371 | 814,918 | 354,194 |
| $1988^{\text {c }}$ | $53,498(4,350)$ | 53,450 | 644,056 | 264,316 |
| $1989^{\text {c }}$ | $55,693(3,570)$ | 55,709 | 749,033 | 322,359 |
| $1990^{c}$ | $55,009(2,390)$ | 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 |
|  |  |  |  |  |

${ }^{a}$ Teal, ducks, coots, and geese combined. The U.S. Fish and Wildife 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 1996 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 | 76 | 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 |

Table 3. Teal harvest and hunter activity, by administrative regions, during the September teal season in Illinois in 1996 ( $\mathrm{n}=2,263$ ).

| Administrative Region ${ }^{\text {a }}$ | Number of Hunters | Days Afield |  | Teal Harvest |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Per <br> Hunter | Total | Per Day <br> Afield | Per Hunter |
| 1A | 945 | 2,663 | 2.82 | 1,105 | 0.41 | 1.17 |
| 1B | 1,833 | 4,783 | 2.61 | 2,970 | 0.62 | 1.62 |
| 2 | 974 | 2,005 | 2.06 | 330 | 0.16 | 0.34 |
| 3A | 2,062 | 5,356 | 2.60 | 3,644 | 0.68 | 1.77 |
| 3B | 344 | 1,031 | 3.00 | 488 | 1.42 | 1.42 |
| 4 | 1,060 | 2,520 | 2.38 | 1,105 | 0.40 | 0.95 |
| 5. | 1,575 | 4,153 | 2.64 | 1,808 | 0.44 | 1.15 |
| Unknown | 171 | 314 |  | 115 |  |  |
| Entire state | 8,964 | 22,825 | 2.55 | 11,565 ${ }^{\text {b }}$ | 0.51 | 1.29 |

${ }^{\text {a }}$ See Figure 8.
${ }^{\text {b }}$ The $95 \%$ confidence interval is $\pm 4,336$.

Table 4. Summary of teal harvest and hunter activity during the September teal season in Illinois from 1981 through 1996.

| 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 |

${ }^{3}$ 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 1996.

| Year | Season Length/ Baq Limit | Days Afield Per Hunter | $\begin{aligned} & \text { Teal Har } \\ & \text { Per Day } \end{aligned}$ | Per Hunter Per Season |
| :---: | :---: | :---: | :---: | :---: |
| 1981 | 9/4 | 2.61 | 0.59 | 1.55 |
| 1982 | 9/4 | 2.82 | 0.69 | 1.94 |
| 1983 | 9/4 | 2.97 | 0.74 | 2.21 |
| 1984 | 9/4 | 2.79 | 0.83 | 2.31 |
| 1985 | 9/4 | 2.64 | 0.80 | 2.11 |
| 1986 | 9/4 | 2.60 | 0.75 | 1.97 |
| 1987 | 9/4 | 2.65 | 0.71 | 1.89 |
| $\begin{aligned} & 1988^{a} \\ & 1989^{a} \end{aligned}$ |  |  |  |  |
| $\begin{aligned} & 1990^{\mathrm{a}} \\ & 1991^{\mathrm{a}} \end{aligned}$ |  |  |  |  |
| 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 |

${ }^{a}$ 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.
Characteristic Number
Adult hunters who took $\geq 1$ youths afield ..... 2,749a
Youth hunters who participated ..... 4,353
Mean youths per hunting party ..... $1.58^{\text {b }}$
Waterfowl harvest
Total ducks ..... 3,171
Ducks per youth hunter ..... $0.73^{c}$
Total coots ..... 230
Coots per youth hunter ..... 0.05
${ }^{2} 6.2 \%$ of adult duck hunters.
${ }^{\mathrm{b}} 62.1 \%$ of the parties included 1 youth hunter, $26.3 \%$ included 2youth hunters, and $11.6 \%$ included $\geq 3$ youth hunters.${ }^{c} 32.3 \%$ of the parties harvested 0 ducks, $39.6 \%$ harvested 1-2 ducks,and $28.1 \%$ harvested $\geq 3$ ducks.
Table 7. Duck and coot harvest and hunter activity, by administrative regions, during the

| Administrative Region ${ }^{\text {a }}$ | Number of Hunters | Days Afield |  | Duck Harvest |  |  |  | Coot <br> Harvest |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Per Hunter | Total |  | $\begin{aligned} & \text { Per Day } \\ & \text { Afield }{ }^{\text {b }} \end{aligned}$ | $\begin{gathered} \text { Per } \\ \text { Hunter } \end{gathered}$ |  |
| 1A | 3,179 | 26,634 | 8.38 | 14,693 | $(1,507)^{\text {c }}$ | 0.50 | 4.15 |  |
| 1 B | 10,825 | 118,108 | 10.91 | 80,996 | $(4,419)$ | 0.65 | 7.07 | 258 301 |
| 2 | 7,045 | 59,312 | 8.42 | 29,299 | $(3,329)$ | 0.44 | 3.69 | 330 |
| 3A | 9,336 | 122,003 | 13.07 | 69,646 | $(1,205)$ | 0.56 | 7.33 | 1,205 |
| 3 B | 1,547 3,580 | 17,012 | 11.00 | 7,102 | $($ 215) | 0.40 | 4.45 | 144 |
| 5 | 8,248 | 83,680 | 9.41 10.04 | 18,825 63,276 | $\left(\begin{array}{r}359) \\ 6,873)\end{array}\right.$ | 0.55 | 5.16 | 388 |
| Unknown | + 459 | $\begin{array}{r}82,796 \\ \hline 972\end{array}$ | 10.04 | 18,876 688 | 6,873) | 0.68 | 6.84 | 660 |
| Entire State | 44,219 | 460,517 | 10.41 | 284,525 ${ }^{\text {d,e }}$ | $(18,021)$ | 0.58 | 6.03 | 3,286 ${ }^{\text {f }}$ |

${ }^{1}$ See Figure 8.
${ }^{6}$ Excludes ducks harvested coincidentally to goose hunting.
${ }^{c}$ Ducks harvested coincidentally to goose hunting.
${ }^{\text {d }}$ The 95 \% confidence interval is $\pm 38,974$.
${ }^{\text {f }}$ The $95 \%$ confidence interval is $\pm 3,223$.

Table 8. Summary of duck and coot harvests and hunter activity during the regular duck season in Illinois from 1981 through 1996.

| Season (Year) | Hunters | $\begin{gathered} \text { Days } \\ \text { Afield } \\ \hline \end{gathered}$ | Duck Harvest |  |  |  |  | coot <br> Harvest |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mallards | Wood Ducks | Other Ducks | Total |  |  |
| 1981 | 54,744 | 703,534 | 170,972 | 72,065 | 94,947 | 337,984 |  | 4,950 |
| 1982 | 52,220 | 646,394 | 163,439 | 61,706 | 101,989 | 327,134 |  | 5,905 |
| 1983 | 50,440 | 651,409 | 220,317 | 72,237 | 110,862 | 403,416 |  | 10,472 |
| 1984 | 49,715 | 606,325 | 182,132 | 52,955 | 120,016 | 355,103 |  | 7,702 |
| 1985 | 51,362 | 556,800 | 168,549 | 51,216 | 97,155 | 316,920 |  | 5,773 |
| 1986 | 53,588 | 638,090 | 201,676 | 65,414 | 112,490 | 379,580 |  | 7,372 |
| 1987 | 51,704 | 558,172 | 155,783 | 58,488 | 74,748 | 289,019 |  | 2,694 |
| $1988{ }^{\text {a }}$ | 43,233 | 381,985 | 119,149 | 23,743 | 42,836 | 185,728 |  | 1,936 |
| $1989^{\text {a }}$ | 43,841 | 407,478 | 133,128 | 28,065 | 63,073 | 224,266 |  | 2,049 |
| $1990^{\text {B }}$ | 38,759 | 350,119 | 112,370 | 33,253 | 51,562 | 197,185 | $(7,144)^{\text {b }}$ | 2,287 |
| $1991{ }^{\text {a }}$ | 42,911 | 393,247 | 177,221 | 49,556 | 80,793 | 307,570 | $(25,815)$ | 1,101 |
| 1992 | 39,272 | 362,275 | 124,112 | 34,280 | 58,035 | 216,427 | $(11,501)$ | 3,275 |
| 1993 | 40,941 | 366,656 | 134,334 | 39,906 | 43,360 | 217,600 | $(4,320)$ | 1,445 |
| 1994 | 44,447 | 475,264 | 137,263 | 44,683 | 64,998 | 246,944 | $(4,026)$ | 3,880 |
| 1995 | 42,499 | 482,620 | 230,505 | 47,155 | 99,632 | 377,292 | $(20,470)$ | 3,386 |
| 1996 | 44,219 | 460,517 | 163,311 | 38,783 | $82,431^{\text {c }}$ | 284,525 | $(18,021)$ | 3,286 |

${ }^{\text {arthe }}$ estimates of duck hunters, days afield, and ducks and coots harvested for these years have been reduced to $92.48 \%$ - $96.48 \%$ of the original estimates. See last paragraph of the METHODS section in Anderson and Williamson (1994) for explanation.
bDucks harvested coincidentally to goose hunting.
${ }^{c}$ Includes 4,348 canvasback.

Table 9. Rates of duck harvest and hunter activity during the regular duck season in Illinois from 1981 through 1996.

| Year | Season Length/ <br> Bag Limit | Days Afield <br> Per Hunter | Duck Harvest Per Hunter <br> Per Day |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 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 | $30 / 3(2)$ | 10.66 | 0.58 | 5.21 |
| 1994 | $40 / 3(2)$ | 11.36 | 0.51 | 5.47 |
| 1995 | $50 / 5(4)$ | 10.41 | 0.74 | 8.40 |
| 1996 | $50 / 5(4)$ |  | 0.58 | 6.03 |
|  |  |  |  |  |

${ }^{\text {a }}$ 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 1988-1996.

Table 10. Distribution of duck hunters in relation to types of areas hunted in Illinois during the regular duck season in 1996. Sample sizes are in parentheses.

By Waterfowl Zones

|  | ${\frac{\text { North }}{(289)^{1}}}^{\mathrm{B}}$ | $\frac{\text { Central }}{(869)}$ |  | $\frac{\text { South }}{(343)}$ | Entire State |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Private areas | 44\% | $46 \%$ |  | 25\% |  | 41\% |  |
| Public areas | 26 | 23 |  | 37 |  | 27 |  |
| Both types of areas | 30 | 31 |  | 38 |  | 37 |  |
|  | By Administrative Regions |  |  |  |  |  |  |
|  | 1A | 1B | 2 | 3A | 3B | 4 | 5 |
|  | (109) | (369) | (242) | (320) | (54) | (123) | (284) |
| Private areas | 36\% | 46\% | 53\% | 44\% | 32\% | 37\% | 26\% |
| Public areas | 32 | 23 | 16 | 26 | 32 | 32 | 35 |
| Both types of areas | 32 | 31 | 31 | 30 | 36 | 31 | 39 |

${ }^{\text {a Duck hunters. }}$
Table 11. Canada goose harvest and hunter activity, by county,
during the experimental early September Canada goose
season in northeastern Illinois and in the remainder
of the North Waterfowl Zone in 1996 .

| County | Hunters | Days Afield | Canada Geese |
| :---: | :---: | :---: | :---: |
| Northeastern Illinois |  |  |  |
| Cook | 143 | 373 | 102 |
| DuPage | 143 | 373 | 127 |
| Grundy | 258 | 717 | 229 |
| Kane | 431 | 1,004 | 165 |
| Kankakee | 115 | 287 | 0 |
| Kendall | 57 | 172 | 0 |
| Lake | 660 | 1,492 | 406 |
| McHenry | 775 | 2,295 | 1,054 |
| Will | 402 | 689 | 203 |
| Totals | 2,984 | 7,402 | 2,286 |
| Remainder of North Waterfowl zone |  |  |  |
| Boone | 29 | 57 | 51 |
| Bureau | 29 | 29 | 0 |
| Carroll | 201 | 545 | 165 |
| DeKalb | 29 | 115 | 0 |
| Henry | 143 | 516 | 152 |
| JoDaviess | 29 | 86 | 0 |
| Lasalle | 0 | 0 | 0 |
| Lee | 57 | 143 | 89 |
| Ogle | 29 | 115 | 13 |
| Rock Island | 201 | 488 | 64 |
| Stephenson | 0 | - 0 | 0 |
| Whiteside | 0 | 0 | 0 |
| Winnebago | 172 | 689 | 114 |
| Totals | 918 | 2,783 | 648 |
| All counties | 3,902 | 10,185 | 2,934 |


| Zone or <br> Administrative <br> Region ${ }^{\text {a }}$ | Hunters | Days Afield |  | Goose Harvest |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Per Hunter | Canada Geese | Snow/Blue Geese | Other Geese | Total Geese | $\mathbf{P}$ | $\begin{aligned} & \text { er Day } \\ & \text { field } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Per } \\ & \text { Hunter } \end{aligned}$ |
| Southern IL |  |  |  |  |  |  |  |  |  |  |
| Rend Lake Quota Zone | 3,041 | 17,186 | 5.65 | 5,028 | 559 | 140 | 5,727 | 51) | 0.33 | 1.87 |
| Remainder ofState |  |  |  |  |  |  |  |  |  |  |
| 1A | 1,922 | 11,161 | 5.81 | 1,587 | 0 | 0 | 1,587 | ( 89) | 0.13 | 0.78 |
| 1B | 9,153 | 72,132 | 7.88 | 10,527 | 38 | 38 | 10,603 | ( 660) | 0.14 | 1.09 |
| 2 | 7,489 | 52,047 | 6.95 | 10,133 | 0 | 25 | 10,158 | ( 444 ) | 0.19 | 1.30 |
| 3A | 3,328 | 28,032 | 8.42 | 4,533 | 114 | 51 | 4,698 | ( 355) | 0.15 | 1.30 |
| 3B | 1,836 | 11,678 | 6.36 | 1,740 | 63 | 0 | 1,803 | ( 343) | 0.13 | 0.80 |
| 4 | 1,922 | 16,010 | 8.33 | 3,187 | 216 | 13 | 3,416 | ( 178) | 0.20 | 1.68 |
| $5^{\text {d }}$ | 2,267 | 15,751 | 6.95 | 3,962 | 1,575 | 127 | 5,664 | ( 381) | 0.34 | 2.33 |
| Unknown | 201 | 861 |  | 76 | 0 | 0 | 76 | ( 0) |  |  |
| Total | 23,298 | 207,672 | 8.91 | 35,745 | 2,006 | 254 | 38,005 | $(2,450)$ | 0.17 | 1.53 |
| Entire State | 36,582 ${ }^{\text {e }}$ | 339,253 | 9.27 | 65,864 | 4,063 | 876 | 70,803 ${ }^{\text {f }}$ | $(2,641)$ | 0.20 | 1.86 |

${ }^{a}$ See Figure 8
${ }^{\text {b }}$ Excludes geese harvested coincidentally to duck hunting. ${ }^{c}$ Number of geese harvested coincidentally to duck hunting.
${ }^{d}$ Excludes Southern Quota Zone and Rend Lake Quota Zone.
${ }^{e}$ The totals are less than the sums of the above values because some hunters were active in $>1$ zone
${ }^{f}$ The $95 \%$ confidence interval is $\pm 8,595$.

Table 13. Distribution of goose hunters in relation to types of areas hunted in Illinois during the regular duck season in 1996.

By Waterfowl Zones

|  | North | Central | South | RLOZ | SIOZ | Statewide |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(214){ }^{\text {a }}$ | (492) | (79) | (103) | (493) | $(1,230)$ |
| Private areas | 67\% | 58\% | 47\% | 20\% | 52\% | 57\% |
| Public areas | 6 | 7 | 8 | 25 | 10 | 10 |
| Both types of areas | 27 | 35 | 45 | 55 | 38 | 33 |

By Administrative Reqions

|  | $\frac{1 A}{}$ | $\frac{1 B}{(59)}$ | $\frac{2}{(260)}$ | $\frac{2}{(215)}$ | $\frac{3 A}{(90)}$ | $\frac{3 B}{(48)}$ | $\frac{4}{(52)}$ | $\frac{5}{(61)}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Private areas | $59 \%$ | $67 \%$ | $64 \%$ | $47 \%$ | $48 \%$ | $44 \%$ | $49 \%$ |  |
| Public areas | 12 |  | 5 | 7 |  | 9 | 8 | 8 |
| Both types of areas | 29 | 28 | 29 | 44 | 44 | 48 | 44 |  |

Table 14. Summary of goose harvest and hunter activity during the regular goose season in Illinois from 1981-82 through 1996-97.

|  |  |  | Goose Harvest |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Season (Year) | Hunters | Days <br> Afield | Canada Geese | Other | Geese | Tot | al |
| 1981 | 23,610 | 132,610 | 44,302 ( 6,312) ${ }^{\text {a }}$ | 3,082 | $(1,719)$ | 47,384 | $(8,031)$ |
| 1982 | 24,058 | 107,557 | 29,574 ( 4,968) | 1,499 | ( 710) | 31,073 | $(5,678)$ |
| 1983 | 26,199 | 124,639 | 31,395 ( 4,325) | 962 | ( 577) | 32,357 | $(4,902)$ |
| 1984 | 22,426 | 102,583 | 23,147 ( 2,859 ) | 1,675 | ( 593) | 24,822 | $(3,452)$ |
| 1985 | 22,160 | 105,792 | 37,976 (5,248) | 2,324 | ( 753) | 40,300 | $(6,001)$ |
| 1986 | 30,327 | 200,291 | 45,535 (11,348) | 2,625 | ( 832) | 48,160 | $(12,180)$ |
| 1987 | 32,246 | 224,164 | 36,103 ( 3,563 ) | 1,525 | ( 499) | 37,628 | $(4,062)$ |
| 1988 ${ }^{\text {b }}$ | 34,456 | 251,176 | 72,550 ( 3,871) | 1,832 | ( 350) | 74,382 | $(4,221)$ |
| 1989 ${ }^{\text {b }}$ | 39,459 | 329,369 | 91,379 ( 2,988 ) | 1,715 | ( 182) | 93,094 | $(3,170)$ |
| $1990{ }^{\text {b }}$ | 40,459 | 346,036 | 67,127 ( 1,515) | 1,319 | ( 97) | 68,446 | $(1,612)$ |
| 1991 ${ }^{\text {b }}$ | 43,692 | 450,807 | 92,239 ( 1,245) | 2,434 | ( 70) | 94,673 | $(1,315)$ |
| 1992 | 35,253 | 334,010 | 59,352 ( 2,679) | 1,412 | ( 170) | 60,764 | $(2,849)$ |
| 1993 | 35,489 | 299,120 | 93,361 ( 1,260) | 1,314 | ( 82) | 94,675 | ( 1,342) |
| 1994 | 37,090 | . 320,580 | 67,790 ( 1,895) | 1,753 | ( 77) | 69,543 | $(1,972)$ |
| 1995 | 37,060 | 367,341 | 92,478 ( 4,034) | 3,183 | ( 245) | 95,661 | $(4,279)$ |
| 1996 | 36,582 | 339,253 | 65,864 ( 2,451) | 4,939 ${ }^{\text {c }}$ | ( 114) | 70,803 | ( 2,641) |

${ }^{a}$ Number of geese harvested coincidentally to duck hunting.
${ }^{b}$ The estimates of goose hunters and days afield for these years have been reduced to $92.48 \%$ - $96.48 \%$ of the original estimates. The estimates for geese harvested have not been reduced. See last paragraph of the METHODS section in Anderson and Williamson (1994) for explanation.
${ }^{c}$ Includes 4,063 snow geese.

Table 15. Canada goose harvest and hunter activity in quota counties in the North and Central Waterfowl Zones in Illinois during the 1996-97 season.

| Zones and Quota Counties | Hunters |  | Days Afield | Canada Geese |
| :---: | :---: | :---: | :---: | :---: |
|  | Successful ${ }^{\text {a }}$ | Total |  |  |
| North Zone |  |  |  |  |
| Dupage | 172 | 239 | 1,865 | 800 |
| Kane | 574 | 918 | 6,398 | 1,067 |
| Lake | 746 | 947 | 6,427 | 1,397 |
| Mchenry | 832 | 1,320 | 9,353 | 2,057 |
| LaSalle ${ }^{\text {b }}$ | 144 | 258 | 1,779 | 165 |
| Will ${ }^{\text {b }}$ | 258 | 402 | 3,386 | 724 |
| Total | 2,726 | 4,074 | 29,208 | 6,210 |
| Central Zone |  |  |  |  |
| Calhoun | 201 | 287 | 3,615 | 686 |
| Cass | 115 | 201 | 1,291 | 216 |
| Fulton | 2,209 | 3,500 | 38,218 | 5,079 |
| Grundy | 545 | 832 | 9,698 | 1,130 |
| Jersey | 86 | 144 | 2,554 | 609 |
| Knox | 430 | 947 | 6,226 | 1,130 |
| Mason | 230 | 459 | 7,001 | 622 |
| Morgan | 115 | 172 | 889 | 241 |
| Peoria | 201 | 344 | 3,586 | 533 |
| Pike | 172 | 402 | 2,898 | 622 |
| Tazewell | 172 | 230 | 1,951 | 254 |
| Woodford | 115 | 115 | 1,205 | 190 |
| LaSalle ${ }^{\text {c }}$ | 258 | 516 | 3,558 | 318 |
| Will ${ }^{\text {c }}$ | 516 | 832 | 6,886 | 1,460 |
| Total | 5,365 | 8,981 | 89,576 | 13,090 |

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

| Zones and Counties | $\begin{gathered} \text { Phone-in } \\ \text { Monitoring } \\ \text { System } \\ \hline \end{gathered}$ | Mail <br> Questionnaire Survey | Percentage Difference |
| :---: | :---: | :---: | :---: |
| North Zone Quota counties | 11,300 | 6,210 | -45 |
| Central zone quota counties | 17,001 | 13,090 | -23 |
| Both Zones Quota counties | 28,301 | 19,300 | -32 |


| Geographical Zones and Quota Zones | Canada Geese |  |
| :---: | :---: | :---: |
|  | Number | Percentage |
| North Waterfowl Zone |  |  |
| Quota counties | 6,210 | 68 |
| Other counties | 2,964 | 32 |
| Total | 9,174 | 100 |
| Central Waterfowl zone |  |  |
| Quota counties | 13,090 | 62 |
| Other counties | 7,975 | 38 |
| Total | 21,065 | 100 |
| South Waterfowl Zone |  |  |
| Rend Lake Quota Zone | 5,028 | 14 |
| Southern Quota Zone | 25,091 | 71 |
| Other counties | 5,429 | 15 |
| Total | 35,548 | 100 |
| Entire state |  |  |
| Quota zones | 49,419 | 75 |
| Other counties | 16,368 | 25 |
| Unknown | 76 | <1 |
| Total | 65,864 | 100 |

Table 18. Rates of goose harvest and hunter activity during the regular goose season in Illinois in 1981-82 through 1996-97.

| Year | Season Length/ <br> Bag Limit | Days Afield <br> Per Hunter | Goose Harvest Per Hunter <br> Per Day |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 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 | $51 / 2$ | 8.64 | 0.21 | 1.82 |
| 1995 | $89-93 / 3$ | 9.91 | 0.25 | 2.47 |
| 1996 | $84-93 / 2$ |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

${ }^{9}$ 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 19. Summary of the number of ducks, geese, and coots that were crippled (knocked down but not retrieved) in Illinois from 1981 through 1996 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 |
| $1990^{\circ}$ | 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 |

${ }^{a}$ 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.
bThe 95\% confidence intervals were $\pm 5,905$ for ducks, $\pm 8,595$ for geese, and $\pm 357$ for coots.

Table 20. 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 1996 seasons. Data from U.S. Fish and Wildlife Service, Office of Migratory Bird Management, Hunter Questionnaire Surveys.

| Year | Ducks | Geese | Coots |
| :---: | :---: | :---: | :---: |
| 1952 | 27.9 | 22.9 | --- ${ }^{\text {a }}$ |
| 1953 | 22.5 | 16.1 | --- |
| 1954 | 23.0 | 17.1 | --- |
| 1955 | 23.6 | 19.9 | --- |
| 1956 | 23.3 | 16.8 | --- |
| 1957 | 21.8 | 17.6 | --- |
| 1958 | 23.3 | 19.6 | --- |
| 1959 | 20.2 | 19.9 | --- |
| 1960 | 23.0 | 17.9 | --- |
| 1961 | 22.1 | 17.9 | --- |
| 1962 | 22.6 | 17.5 | --- |
| 1963 | 23.8 | 18.6 | --- |
| 1964 | 23.8 | 17.9 | --- |
| 1965 | 23.5 | 18.6 | --- |
| 1966 | 22.4 | 16.1 | --- |
| 1967 | 22.0 | 15.9 | --- |
| 1968 | 23.2 | 16.1 | --- |
| 1969 | 22.5 | 14.4 | --- |
| 1970 | 21.1 | 15.3 | --- |
| 1971 | 22.1 | 15.4 | 28.2 |
| 1972 | 22.4 | 15.5 | 29.6 |
| 1973 | 21.9 | 14.8 | 29.2 |
| 1974 | 21.5 | 14.3 | 29.1 |
| 1975 | 20.3 | 13.0 | 28.9 |
| 1976 | 19.4 | 14.2 | 26.8 |
| 1977 | 20.5 | 14.9 | 28.9 |
| 1978 | 20.2 | 15.7 | 29.0 |
| 1979 | 20.3 | 14.3 | 27.1 |
| 1980 | 19.2 | 12.9 | 30.9 |
| 1981 | 19.4 | 13.2 | 22.7 |
| 1982 | 19.2 | 15.2 | 27.7 |
| 1983 | 19.4 | 14.4 | 23.7 |
| 1984 | 19.5 | 14.2 | 30.4 |
| 1985 | 19.7 | 14.0 | 24.3 |
| 1986 | 20.1 | 15.7 | 32.5 |
| 1987 | 24.5 | 20.5 | 27.5 |
| 1988 | 23.9 | 16.3 | 31.0 |
| 1989 | 22.5 | 15.9 | 32.1 |
| 1990 | 23.4 | 16.4 | 30.4 |
| 1991 | 24.3 | 17.1 | 28.1 |
| 1992 | 24.1 | 17.1 | 30.6 |
| 1993 | 22.7 | 14.9 | 27.6 |
| 1994 | 20.7 | 14.4 | 20.7 |
| 1995 | 17.9 | 15.0 | 20.8 |
| 1996 | 17.8 | 13.2 | 24.4 |

[^1]Table 21. Awareness of duck and goose hunters of the National Migratory Bird Harvest Information Program (Illinois 1996-97). Sample sizes are in parentheses.

Responses to the following questions:
"Are you aware of the National Migratory Bird Harvest Information Program, called "HIP" for short?"

Duck
Hunters
$(1,523)$
Yes $79.9 \%$
No
20.1

Goose
Hunters
$(1,267)$
80.2\%
19.8
"Did you register with this program for the 1996-97 season?"

Duck
Hunters
(1,489)
$76.8 \%$
23.2

Goose
Hunters
$(1,246)$
76.7\%
23.3

Table 22. Attitudes of duck hunters toward the Youth Waterfowl Hunting Day (Illinois 1996). Sample sizes are in parentheses.

Responses to the questions:
"Do you think the U.S. Fish and Wildlife Service's decision to allow an extra day of waterfowl hunting for youth hunters only (designated as "Youth Waterfowl Hunting Day") was a good idea or a bad idea?"

Responses by Waterfowl Zones

|  | $\frac{\text { North }}{(291)}$ | $\frac{\text { Central }}{}$ |  | South |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $876)$ |  | Entire State |  |  |
| Good idea | $78 \%$ | $77 \%$ |  | $(1,527)$ |  |
| Bad idea | 6 | $74 \%$ | $76 \%$ |  |  |
| No opinion | 16 | 10 |  | 11 | 10 |
| N | 13 |  | 15 | 14 |  |

Responses by Administrative Regions

|  | 1A | 1B | 2 | 3A | 3B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (111) | $\frac{18}{(372)}$ | (245) | (321) | (54) | (123) | $\overline{\text { (286) }}$ |
| Good idea | 78\% | 79\% | 78\% | 74\% | 80\% | 76\% | 73\% |
| Bad idea | 5 | 10 | 7 | 12 | 9 | 11 | 11 |
| No opinion | 17 | 11 | 15 | 14 | 11 | 13 | 16 |

"Illinois' 1996 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 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\frac{\text { North }}{}$ | $\frac{\text { Central }}{}$ | $\frac{\text { South }}{(343)}$ | $\frac{\text { Entire State }}{(1,494)}$ |  |
| Six days about right | $583)$ | $(853)$ | $(34 \%$ | $54 \%$ | $51 \%$ |
| Should have been >6 days | 15 | 15 | 18 | $53 \%$ |  |
| Should have been <6 days | 4 | 4 | 2 | 16 |  |
| Others | 2 | 5 | 6 | 3 |  |
| No opinion | 25 | 22 | 23 | $5^{\text {a }}$ |  |
|  |  |  |  |  |  |

Table 22. Continued - page 2.

Responses by Administrative Regions
Six days about right
Should have been $>6$ days
Should have been $<6$ days
Other
No opinion

| 1A | 1B | 2 | 3A | 3B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (108) | $\overline{\text { (360) }}$ | (240) | (311) | (54) | (122) | (284) |
| 54\% | 54\% | 53\% | 54\% | 50\% | 53\% | 50\% |
| 18 | 16 | 15 | 15 | 18 | 10 | 19 |
| 5 | 3 | 5 | 3 | 4 | 2 | 3 |
| 1 | 5 | 3 | 6 | 2 | 6 | 7 |
| 22 | 22 | 24 | 22 | 26 | 29 | 21 |

${ }^{3}$ Includes: discontinue YWHD (2.4\%), make YWHD part of the regular duck season (1.3\%), and 7 miscellaneous suggestions (0.9\%).

Table 23. Attitudes of duck hunters toward the dates for the regular duck season (Illinois 1996). Sample sizes are in parentheses.

Responses to the questions,
"The dates for Illinois' 1996 regular duck season were October 12November 30 in the North Zone, October 26-December 14 in the Central Zone and November 9-December 28 in the South Zone. What do you think about using similar dates for the 1997 duck season?"

| North | Central | South | Entire State |
| :---: | :---: | :---: | :---: |
| (283) | (824) | (330) | $(1,453)$ |
| 23\% | 28\% | 43\% | 30\% |
| 62 | 53 | 46 | 53 |
| 11 | 14 | 7 | 12 |
| 4 | 5 | 4 | 5 |

"If the length of the duck season is extended from 50 to 60 days in 1997, should the additional days be added to the front of the season, to the back of the season, or split so that some days are added to both the front and back of the season?"

|  | Responses by Waterfowl Zones |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | North |  |  |  |
|  | $\frac{\text { Central }}{(291)}$ | $\frac{\text { South }}{(874)}$ | Entire State |  |
| All days to front | $22 \%$ | $24 \%$ | 84 | $(1,523)$ |
| All days to back | 37 | 43 | 67 | $20 \%$ |
| Split days | 37 | 31 | 23 | 47 |
| No opinion | 4 | 2 | 2 | 31 |
|  |  |  |  |  |


|  | Responses by Administrative Regions |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 A | 1B | 2 | 3A | 3B | 4 | 5 |
|  | (111) | (373) | (245) | (317) | (54) | (124) | (284) |
| All days to front | 18\% | 34\% | 21\% | 17\% | 19\% | 17\% | 7\% |
| All days to back | 39 | 30 | 45 | 48 | 46 | 53 | 71 |
| Split days | 39 | 35 | 32 | 33 | 28 | 30 | 20 |
| No opinion | 4 | 1 | 2 | 2 | 7 | 0 | 2 |

Table 24. Attitudes of duck hunters toward split duck seasons (Illinois 1996). Sample sizes are in parentheses.

Responses to the question,
"In recent years, the state of Illinois has been divided into 3 geographical zones for purposes of setting the duck hunting season. In the future, the U.S. Fish and Wildife Service may allow Illinois to split the duck season into 2 time periods within each zone. Split duck seasons may improve hunting opportunities for both early-migrating species and late-migrating species. However, the early season could not begin before the Saturday closet to October 1 and the late season would be hampered by freezeups in December. With these facts in mind, are you supportive or unsupportive of having split duck seasons in Illinois?"

Responses by Waterfowl Zones

|  | $\frac{\text { North }}{(289)^{9}}$ | $\frac{\text { Central }}{(866)}$ |  | South | Entire State |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Supportive | $32 \%$ | $341)$ |  | $(1,511)$ |  |
| Unsupportive | 45 | $33 \%$ |  | $49 \%$ | $36 \%$ |
| No opinion | 23 | 48 |  | 33 | 44 |
| No | 19 |  | 18 | 20 |  |


|  | Responses by Administrative Regions |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1A | 1B | 2 | 3A | 3B | 4 | 5 |
|  | (109) | (369) | (245) | (313) | (54) | (124) | (282) |
| Supportive | 29\% | 28\% | 35\% | 35\% | 33\% | 45\% | 49\% |
| Unsupportive | 47 | 55 | 43 | 47 | 39 | 35 | 33 |
| No opinion | 24 | 17 | 22 | 18 | 28 | 20 | 18 |

Table 25. Attitudes of duck hunters toward quantity versus quality for . management on public areas (Illinois 1996). Sample sizes are in parentheses.

Responses to the questions:
"If you waterfowl hunted on public areas, do you think management on these areas should emphasize quantity (maximum hunters and crowding), quality (fewer hunters and less crowding), or a blend whereby some areas stress quantity and other areas stress quality?"

Responses by Waterfowl Zones

|  | North | Central | South | Entire State |
| :---: | :---: | :---: | :---: | :---: |
|  | $(162)^{\text {a }}$ | (460) | (252) | (878) |
| Quantity | 4\% | 4\% | 4\% | 4\% |
| Quality | 46 | 53 | 52 | 52 |
| Blend | 35 | 33 | 35 | 34 |
| No opinion | 15 | 10 | 9 | 10 |

Responses by Administrative Regions

|  | 1A | 1B | 2 | 3A | 3B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (69) | (194) | (113) | (177) | (37) | (75) | (209) |
| Quantity | 4\% | 6\% | 3\% | 3\% | 3\% | 1\% | 4\% |
| Quality | 51 | 52 | 48 | 49 | 57 | 66 | 50 |
| Blend | 30 | 32 | 39 | 35 | 32 | 28 | 35 |
| No opinion | 15 | 10 | 10 | 13 | 8 | 5 | 11 |

"From a personal perspective, would you prefer to have access to a public area that emphasizes quantity waterfowl hunting or an area that emphasizes quality hunting? For example, "quantity" hunting might equate to 80 blinds spaced at 100-yard intervals and a 75\% chance of you personally hunting on a given day. In contrast, "quality" hunting may involve 20 blinds spaced 400 yards apart and a $25 \%$ chance of you personally hunting on a given day."

Responses by Waterfowl Zones

|  | North | Central | South | Entire State |
| :---: | :---: | :---: | :---: | :---: |
|  | (160) | (463) | (253) | (880) |
| Crowded/75\% chance | 9\% | 10\% | 15\% | 11\% |
| Uncrowded/25\% chance | 67 | 76 | 70 | 73 |
| Undecided | 24 | 14 | 15 | 16 |

Table 25 - continued.

Table 25. Continued - page 2.

Responses by Administrative Regions

|  | 1A | 1B | 2 | 3A | 3B | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (68) | (195) | (112) | (180) | (37) | (77) | (207) |
| Crowded/75\% chance | 7\% | 8\% | 11\% | 13\% | 13\% | 5\% | 16\% |
| Uncrowded/25\% chance | 68 | 79 | 69 | 71 | 76 | 78 | 70 |
| Undecided | 25 | 13 | 20 | 16 | 11 | 17 | 14 |

${ }^{\text {a }}$ Duck hunters who were active on public areas.

Table 26. Attitudes of goose hunters toward quantity versus quality for management on public areas (Illinois 1996-97). Sample sizes are in parentheses.

Responses to the following questions:
"If you waterfowl hunted on public areas, do you think management on these areas should emphasize quantity (maximum hunters and crowding), quality (fewer hunters and less crowding), or a blend whereby some areas stress quantity and other areas stress quality?

Responses by Waterfowl Zones

| North | $\frac{\text { Central }}{(71)^{\mathrm{a}}}$ | $\frac{\text { South }}{(205)}$ | $\frac{\text { RLOZ }^{\mathrm{b}}}{(40)}$ | $\frac{\text { SIOZ }^{c}}{(82)}$ | $\frac{\text { Entire State }}{(236)}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $6 \%$ | $3 \%$ | $5 \%$ | $3 \%$ | $1519)$ |  |
| 42 | 58 | 43 | 51 | 56 | $3 \%$ |
| 39 | 31 | 43 | 39 | 32 | 53 |
| 13 | 8 | 9 | 7 | 11 | 34 |
| 10 |  |  |  |  |  |

Responses by Administrative Regions

| Responses by Administrative Regions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{1 A}{(47)}$ | $\frac{1 B}{(209)}$ | $\frac{2}{(161)}$ | $\frac{3 A}{(77)}$ | $\frac{3 B}{(41)}$ | $\frac{4}{(47)}$ | $\frac{5}{(54)}$ |  |  |  |  |  |  |  |  |  |
| $2 \%$ | $2 \%$ | $4 \%$ | $5 \%$ | $2 \%$ | $0 \%$ | $9 \%$ |  |  |  |  |  |  |  |  |  |
| 45 | 50 | 44 | 48 | 51 | 53 | 46 |  |  |  |  |  |  |  |  |  |
| 30 | 28 | 27 | 27 | 27 | 36 | 32 |  |  |  |  |  |  |  |  |  |
| 23 | 20 | 25 | 20 | 20 | 11 | 13 |  |  |  |  |  |  |  |  |  |

"From a personal perspective, would you prefer to have access to a public area that emphasizes quantity waterfowl hunting or an area that emphasizes quality hunting? For example, "quantity" hunting might equate to 80 blinds spaced at 100-yard intervals and a $75 \%$ chance of you personally hunting on a given day. In contrast, "quality" hunting may involve 20 blinds spaced 400 yards apart and a $25 \%$ chance of you personally hunting on a given day."

|  | Responses by Waterfowl Zones |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\frac{\text { North }}{(70)^{2}}$ | $\frac{\text { Central }}{(205)}$ | $\frac{\text { South }}{(42)}$ | $\frac{\text { RLQZ }}{(83)}$ | $\frac{\text { SIOZ }}{(234)}$ | $\frac{\text { Entire State }}{(517)}$ |
| Crowded/75\% <br> chance | $7 \%$ | $8 \%$ | $14 \%$ | $12 \%$ | $10 \%$ | $10 \%$ |
| Uncrowded $/ 25 \%$ <br> chance | 74 | 78 | 79 | 73 | 77 | 76 |
| Undecided | 19 | 14 | 7 | 15 | 13 | 14 |

Table 26 - continued.

Table 26. Continued - page 2.

| Responses by Administrative Regions |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\frac{1 A}{(55)}$ | $\frac{1 B}{(257)}$ | $\frac{2}{(208)}$ | $\frac{3 A}{(91)}$ | $\frac{3 B}{(50)}$ | $\frac{4}{(53)}$ | $\frac{5}{(63)}$ |
| Crowded $/ 75 \%$ <br> chance | $9 \%$ | $10 \%$ | $8 \%$ | $10 \%$ | $8 \%$ | $2 \%$ | $14 \%$ |
| Uncrowded $/ 25 \%$ <br> chance | 60 | 77 | 74 | 76 | 72 | 79 | 72 |
| Undecided | 31 | 13 | 18 | 14 | 20 | 19 | 14 |

${ }^{9}$ Goose hunters who were active on public areas.
${ }^{\text {b }}$ Rend Lake Quota Zone.
'Southern Illinois Quota Zone.

Table 27. Attitudes of waterfowl hunters toward having an early September Canada goose season (Illinois 1996). Sample sizes are in parentheses.

Responses to the questions:
"With approval from the U.S. Fish and Wildlife Service, Illinois had an early (September 7-15) Canada goose hunting season in the North and Northeast Zones in 1996. 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. Hunting in early September and again during the regular season may reduce goose populations in some areas. However, some of the geese harvested in September would otherwise be harvested during the regular season. With these facts in mind, please answer the following questions regarding the early (September) Canada goose hunting season in Illinois."
"Do you agree or disagree with the concept of having an early (September) Canada goose hunting season in Illinois for the purposes of sport hunting and/or to increase harvest of nuisance geese?"

|  | Responses by Waterfowl Zones |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | North |  |  |  |
| For sport hunting | $\frac{\text { Central }}{(480)^{a}}$ | $\frac{\text { South }}{(906)}$ | $\frac{\text { Entire State }}{(284)}$ | $(1,670)$ |
| Agree | $74 \%$ | $60 \%$ | $44 \%$ | $61 \%$ |
| Disagree | 15 | 21 | 30 | 21 |
| No opinion | 11 | 19 | 26 | 18 |
| To increase harvest |  |  |  |  |
| of nuisance geese | $(471)^{a}$ | $(870)$ | $(283)$ | $(1,624)$ |
| Agree | $80 \%$ | $66 \%$ | $50 \%$ | $67 \%$ |
| Disagree | 11 | 17 | 25 | 17 |
| No opinion | 9 | 17 | 25 | 16 |

"Are you supportive or unsupportive of having an early (September) Canada goose hunting season in the counties listed below?"

Responses by Waterfowl Zones

|  | $\frac{\text { North }}{(466)^{a}}$ | $\frac{\text { Central }}{(888)}$ | $\frac{\text { South }}{(284)}$ | $\frac{\text { Entire State }}{(1,636)}$ |
| :---: | :---: | :---: | :---: | :---: |
| County of residence | $(76 \%$ | $55 \%$ | $22 \%$ | $55 \%$ |
| Supportive | 15 | 29 | 55 | 30 |
| Unsupportive | 15 | 16 | 23 | 15 |

Table 27 - continued.

Table 27. Continued - page 2.

| County where goose hunt | $(268)^{c}$ | $(555)$ | $(468)$ | $(1,04.0)$ |
| :--- | :---: | :---: | :---: | ---: |
| Supportive | $78 \%$ | $56 \%$ | $36 \%$ | $55 \%$ |
| Unsupportive | 14 | 31 | 44 | 32 |
| No opinion | 8 | 13 | 20 | 13 |
|  |  |  |  |  |
| County where duck hunt | $(335)^{\text {d }}$ | $(696)$ | $(221)$ | $(1,252)$ |
| Supportive | $74 \%$ | $52 \%$ | $22 \%$ | $52 \%$ |
| Unsupportive | 16 | 32 | 51 | 31 |
| No opinion | 10 | 16 | 27 | 17 |

${ }^{\text {a }}$ Resident waterfowl hunters.
${ }^{\text {b }}$ Includes Rend Lake and Southern Illinois Quota Zones.
${ }^{c}$ Resident goose hunters.
${ }^{\circ}$ Resident duck hunters.

Table 28. Attitudes of goose hunters toward a 70-day season and 1 Canada goose per day versus a 50-day season and 2 Canada geese per day (Illinois 1996-97). Sample sizes are in parentheses.

Responses to the question:
"If Canada goose hunting regulations have to be more restrictive during the 1997-98 season, would you prefer a 70-day season with a daily bag of 1 Canada goose or a 50-day season with a daily bag of 2 Canada geese?"

Responses by Waterfowl zones

|  | $\frac{\text { North }}{(216)^{a}}$ | $\frac{\text { Central }}{(495)}$ | $\frac{\text { South }}{(82)}$ | $\frac{\text { RLOZ }^{\text {b }}}{(105)}$ | $\frac{\text { SIOZ }^{\text {c }}}{(511)}$ | $\frac{\text { Entire State }}{(1,257)}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 70 days <br> $\&$ | $28 \%$ | $30 \%$ | $31 \%$ | $28 \%$ | $18 \%$ | $26 \%$ |
| 50 days <br> $\& 2$ geose | 68 | 67 | 68 | 68 | 77 | 70 |
| No opinion | 4 | 3 | 1 | 4 | 5 | 4 |

Responses by Administrative Regions
$\frac{1 A}{(59)} \quad \frac{1 B}{(262)} \quad \frac{2}{(217)} \quad \frac{3 A}{(89)} \quad \frac{3 B}{(50)} \quad \frac{4}{(53)} \quad \frac{5}{(63)}$

70 days


50 days | $\&$ | 6 | geese | 68 | 65 | 69 | 66 | 74 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

| No opinion | 5 | 2 | 2 | 6 | 4 | 6 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Table 29. Attitudes of goose hunters toward the dates for the late snow/ blue goose season (Illinois 1996-97). Sample sizes are in parentheses.

Responses to the question:
"The 1996-97 snow/blue geese season occurred on October 12-January 12 and February 25-March 10 in the North Zone, October 26-January 26 and February 25-March 10 in the Central Zone, and November 9-January 31 and February 8 -March 2 in the South Zone. By international treaty, the season cannot extend past March 10. Did you like these season dates or would you prefer shifting the days in December/January to February/March? Note: In most years, more snow/blue geese are present in Illinois during February and March than December and January.

Responses by Waterfowl Zone

|  | $\frac{\text { North }}{(18)^{\mathrm{a}}}$ | $\frac{\text { Central }}{(107)}$ | $\frac{\text { South }}{(35)}$ | $\frac{\text { RLQZ }}{(42)}$ | $\frac{\text { SIQZ }}{(122)}$ | $\frac{\text { Statewide }}{(259)}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Liked dates used <br> in 1996-97 | $56 \%$ | $45 \%$ | $57 \%$ | $50 \%$ | $48 \%$ | $48 \%$ |
| Prefer shifting <br> days to Feb/March | 39 | 39 | 37 | 36 | 42 | 39 |
| Other | 0 | 4 | 3 | 5 | 2 | $3^{\text {b }}$ |
| No opinion | 5 | 12 | 3 | 9 | 8 | 10 |

${ }^{9}$ Hunters who pursed snow/blue geese.
${ }^{\text {b/Fourteen miscellaneous suggestions. }}$

Table 30. Attitudes of goose hunters as to the amount of food that should be grown on goose refuges in the Southern Illinois Quota Zone (Illinois 1996-97). Sample sizes are in parentheses.

Responses to the following question:
"If you hunted geese in the Southern Illinois Quota Zone, which of the following refuges were you closest to most of the time?

Horseshoe Lake.... 1 Union County.... $2 \quad$ Crab Orchard.... 3
"In your opinion, how much goose food should be grown on this refuge? In answering this question, consider the following points of view: Too much food reduces the need for geese to leave the refuge and may cause poor goose hunting on surrounding areas. On the other hand, too little food can jeopardize the welfare of the geese and may cause some geese to move to refuges in Kentucky and Missouri."

Responses by Refuges

|  | Horseshoe $\qquad$ | Union County | Crab Orchard | All three Refuges |
| :---: | :---: | :---: | :---: | :---: |
|  | (119) | (105) | (255) | (510) |
| Extra food | 24\% | $42 \%$ | 29\% | $31 \%$ |
| Barely enough food | 46 | 40 | 46 | 44 |
| Less than enough food | 17 | 14 | 18 | 16 |
| Essentially no food | 1 | 0 | 1 | 1 |
| No opinion | 12 | 4 | 6 | 8 |

Table 31. Sex and age of 1996 Illinois Migratory Stamp purchasers and waterfowl hunters following the 1996-97 waterfowl hunting season. Sample sizes are in parentheses.

| Category | Stamp Purchasers: |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Who Hunted Ducks | Who Hunted Geese | Who Hunted Ducks and/ or Geese | All Stamp Purchasers |
|  | $(1,532)$ | $(1,265)$ | $(1,970)$ | $(2,243)$ |
| Sex |  |  |  |  |
| Male | 98.7\% | 98.7\% | 98.8\% | 98.5\% |
| Female | 1.3 | 1.3 | 1.2 | 1.5 |
| Age |  |  |  |  |
| Mean (years) | 40.4 | 40.3 | 41.2 | 41.8 |

Distribution

| $\leq 15$ | years |
| ---: | :--- |
| $16-20$ | " |
| $21-30$ | $\prime \prime$ |
| $31-40$ | $\prime \prime$ |
| $41-50$ | $\prime \prime$ |
| $51-60$ | $\prime \prime$ |
| $61-64$ | $\prime \prime$ |
| $\geq 65$ | $\prime \prime$ |

$0.1^{9}$
4.6
20.3
28.3
24.8
13.0
3.2
5.7
$0.2^{\mathrm{a}}$
4.6
19.4
29.2
25.3
13.2
3.0
5.1

| $0.2^{\mathrm{a}}$ | 0.2 |
| ---: | ---: |
| 4.3 | 4.0 |
| 18.4 | 17.8 |
| 27.5 | 27.0 |
| 25.7 | 25.5 |
| 14.2 | 15.0 |
| 3.2 | 3.5 |
| 6.5 | 7.0 |

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

## INSTRUCTION

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

Please answer the questions on the following pages for your waterfowl hunting activities during the $1996-97$ season.

If you did not hunt waterfowl in Illinois during the 1996-97 season, answer the first five 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.

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

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

Thank you for your cooperation

Figure 1. The questionnaire used for the 1996-97 Illinois Waterfowl Hunter Survey.

## 1996-97 ILITNOIS WATERFOWL HUNIER SURVEY

(see instructions on first page)

## GENERAL INFORMATION

1. How many 1996 Illinois Migratory Waterfowl Stamps did you purchase for your personal use (do not include Federal Stamps)
2. Did you purchase a 1996 Illinois Habitat Stamp? (circle number for appropriate answer)

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

3. How old were you on your last birthday? $\qquad$ years
4. You are (circle one)? Male Female
5. Did you hunt waterfowl (ducks, geese, and/or coots) in Illinois during the 1996-97 season? (circle number for appropriate answer)

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

## SEPIEMBER TEAL SEASON

6. How many different days did you hunt teal during the September teal season in Illinois in 1996?
7. How many teal did you personally harvest (kill and retrieve) during the September teal season in Illinois in 1996?.

## YOUIH WATERFOWL HUNTING DAY

Note: This was a special 1-day waterfowl hunt for youth (15 years of age or younger) waterfowl hunters. It took place on (Saturday) October 5 in the North Zone, October 19 in the Central Zone, and November 2 in the South zone.
8. Did you take 1 or more youths waterfowl hunting on the special Youth Waterfowl Hunting Day in Illinois in 1996? (circle number for appropriate answer)

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

9. 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 $\qquad$

## REGULAR DUCK SEASON

10. How many different days did you hunt ducks during the regular duck season in Illinois in 1996? (NOTE: If you killed all your ducks coincidental to goose hunting, leave this space blank).................. $\qquad$
Figure 1. Continued - page 2.
11. In which county or counties did you hunt ducks during the regular duck season in Illinois in 1996?...... County hunted most

Second most.
Third most.
12. List the number of ducks and coots you personally harvested during the regular duck season in Illinois in 1996. 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 |

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

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

## EARLY CANADA GOOSE SEASON IN NORTH AND NORIHEAST ILIINOIS

NOIE: This special experimental season took place on September 7-15 in the North Zone and Northeast Zone (see map on first page).
14. Did you hunt Canada geese during the early (September) Canada goose season in the North or Northeast Zone in 1996?

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

15. 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?.

## REGULAR GOOSE SEASON

16. List the number of days you hunted geese and the number of geese you personally harvested during the regular goose season in Illinois in 1996-97. DO NOT include geese listed in question 15b 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. |  |  |  |  |
| c. |  |  |  |  |

Figure 1. Continued - page 3.
17. How many geese did you knock down in sight but neither you nor anyone else could retrieve in Illinois in 1996-97?.
18. Did you (or do you plan to) hunt snow/blue geese during the late (February 25-March 10 in Central and North Zones; February 8-March 2 in South Zone) season in Illinois?

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

## YOUR OPINIONS

19. Do you think the U.S. Fish and Wildlife Service's decision to allow an extra day of waterfowl hunting for youth hunters only (designated as "Youth Waterfowl Hunting Day") was a good idea or a bad idea? (circle number for appropriate answer)

Good idea..... 1 Bad idea..... 2 No opinion..... 3
20. Illinois' 1996 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)
21. The dates for Illinois' 1996 regular duck season were October 12 -November 30 in the North Zone, October 26-December 14 in the Central Zone, and November 9 -December 28 in the South Zone. What do you think about using similar dates for the 1997 duck season? (circle number for appropriate answer)

Too Early About Right Too Late No opinion
North Zone......1.................2...................................... . 4
Central Zone....1.................2.......................................... 4
South Zone.......1..................2........................................ 4
22. If the length of the duck season is extended from 50 to 60 days in 1997, should the additional days be added to the front of the season, to the back of the season, or split so that some days are added to both the front and back of the season? (circle number for appropriate answer)

> *Add all additional days to front of season.......................................
> *Add all additional days to back of season........................................ 2
> *Split additional days so that some are added to both front and back... 3
> *No opinion
> .4
23. In recent years, the State of Illinois has been divided into 3 geographical zones for purposes of setting the duck hunting season. In the future, the U.S. Fish and Wildlife Service may allow Illinois to split the duck season into 2 time periods within each zone. Split duck seasons may improve hunting opportunities for both early-migrating species and late-migrating species. However, the early season could not begin before the Saturday

Figure 1. Continued - page 4.
closest to October 1 and the late season would be hampered by freezeups in December. With these facts in mind, are you supportive or unsupportive of having split duck seasons in Illinois? (circle number for appropriate answer)

$$
\text { Supportive..... } 1 \text { Unsupportive..... } 2 \text { No opinion..... } 3
$$

24. The 1996-97 snow/blue geese season cocurred on October 12-January 12 and February 25-March 10 in the North Zone, October 26-January 26 and February 25-March 10 in the Central Zone, and November 9-January 31 and February 8-March 2 in the South Zone. By international treaty, the season cannot extend past March 10. Did you like these season dates or would you prefer shifting the days in December/January to February/March? Note: In most years, more snow/blue geese are present in Illinois during February and March than during December and January. (circle appropriate answer for the zone you hunt most)
*Liked the dates used for the 1996-97 season......................................
*Prefer shifting the days in December/January to February/March........ 2
*Other (write in)
*No opinion
25. With approval from the U.S. Fish and Wildife Service, Illinois had an early (September 7-15) Canada goose hunting season in the North and Northeast zones in 1996. 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. Hunting in early September and again during the regular season may reduce goose populations in some areas. However, some of the geese harvested in September would otherwise be harvested during the regular season. With these facts in mind, please answer the following questions regarding the early (September) Canada goose hunting season in Illinois.

25a. Do you agree or disagree with the concept of having an early (September) Canada goose hunting season in Illinois for the purposes of sport hunting and/or to increase harvest of nuisance geese? (circle appropriate answer for each category)

Agree Disagree No Opinion
*For sport hunting opportunities...............1...........2................ 3
*Increase harvest of nuisance Canada geese...1...........2................ 3
25b. Are you supportive or unsupportive of having an early (September) Canada goose hunting season in the counties listed below? (circle appropriate answer for each county listed)

Supportive Unsupportive Undecided
*In your county of residence. ...............1.................................. 3
*In the county where you goose hunt most..1................................ 3
*In the county where you duck hunt most...1................................ 3
26. If you hunted geese in the Southern Illinois Quota Zone, which of the following refuges were you closest to most of the time? (circle number for appropriate answer)

Horseshoe Lake..... 1 Union County..... 2 Crab Orchard..... 3
26a. In your opinion, how much goose food should be grown on this refuge? In answering this question, consider the following points of view: Too much food reduces the need for geese to leave the refuge and may cause
Figure 1. Continued - page 5.
poor goose hunting on surrounding areas. On the other hand, too little food can jeopardize the welfare of the geese and may cause some geese to move to refuges in Kentucky and Missouri. (circle number for appropriate answer)

> *Should grow extra feed as a hedge against unplanned emergencies...I
> *Should grow barely enough feed to support the geese.................... 2
> *Should grow less than enough feed to support the geese............... 3
> *Should grow essentially no food for the geese............................ 4
> *No opinion............................................................................... 5
27. If Canada goose hunting regulations have to be more restrictive during the 1997-98 season, would you prefer a 70-day season with a daily bag of 1 canada goose or a 50-day season with a daily bag of 2 Canada geese? (circle number for appropriate answer)

70 days and 1 goose...1 50 days and 2 geese... 2 No opinion... 3
28. Did you hunt ducks and/or geese on private areas, public areas, or both private and public areas, in Illinois during the 1996-97 season? (circle appropriate answer for ducks and for geese)

```
Ducks: Private...1 Public...2 Both private and public... }
Geese: Private...1 Public... }2\mathrm{ Both private and public... }
```

28a. If you waterfowl hunted on public areas, do you think management on these areas should emphasize quantity (maximum hunters and crowding), quality (fewer hunters and less crowding), or a blend whereby some areas stress quantity and other areas stress quality? (circle number for appropriate answer)

Quantity..1 Quality.. $2 \quad$ Blend.. $3 \quad$ No opinion.. 4
28b. From a personal perspective, would you prefer to have access to a public area that emphasizes quantity waterfowl hunting or an area that emphasizes quality hunting? For example, "quantity" hunting might equate to 80 blinds spaced at 100 -yard intervals and a $75 \%$ chance of you personally hunting on a given day. In contrast, "quality" hunting may involve 20 blinds spaced 400 yards apart and a $25 \%$ chance of you personally hunting on a given day. (circle number for appropriate answer)

Prefer crowded area with 75\% chance of hunting ......... 1
Prefer uncrowded area with $25 \%$ chance of hunting........ 2
Undecided................................................................ . . . 3
29. Are you aware of the National Migratory Bird Harvest Information Program, called "HIP" for short? (circle number for appropriate answer)

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

29a. Did you register with this program for the 1996-97 season?

$$
\begin{gathered}
\text { Yes..... } 1 \text { No..... } 2 \\
\text { Thank you for your Cooperation } \\
\text { POSTAGE IS PREPAID }
\end{gathered}
$$

Figure 1. Continued - page 6.

## DEAR WATERFOWL HUNTER:

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

## DO NOT MAL THIS CARD

Atter the 1996-97 hunting season (in late January), we will send you a questionnaire to fill out and return to us. This information will assist the Department of Natural Resources in the proper management of the lllinois waterfowl resources.
Thank you for your cooperation.
The minois Depertmert of Netural Resources receives federel finmeid eacimence and therotore muxt comply wivh taderal enti-diecrimination times In complience whl the lincin Hempe Fights Act, Mincia Cormition, Twe VI of the 1984 Civi Pigtes Act Section SO4 of the Pehmbirition Act of 1973 en emencied, and the U.S. Conetitution, the umois Depertment of Neture
 rational arigin, ape or diadily. If you believe you heve been diecriminemed eqainst in any progrem, ectivity or facility, pleme contact the Equa Empioymert Opporturity Oilcor, Depertmerit of Nmoral Peeources, 524 S Second St, Epringtidd, m. E2701-1787, (217) 7e2-7818 or the Orice of thmen Reeources U.S. Fivh and widite Eervice, Wamington, D.C. 20240.


| $\begin{aligned} & \text { Date } \\ & \text { of } \end{aligned}$ | $\begin{aligned} & \text { I } \\ & \text { Shot } \end{aligned}$ | Number I Klled and Retrieved |  |  | Number / Knocked Down, but Lost |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hunt | Nothing. | Ducks | Geese | Coots | Ducks | Goese | Coots |
|  |  |  |  |  |  |  |  |
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Semen Toteds


ILLINOIS
DEPARTMENT OF
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: IC
Enclosure
W1

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

ILLINOIS
DEPARTMENT OF
NATURAL RESOURCES

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


ILLINOIS
DEPARTMENT OF
NATURAL RESOURCES

## Dear Fellow Sportsman:

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

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

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

Thank You.


JMV:WLA:IC Enclosure W3

Figure 5. The letter that accompanied the third mailing of the questionnaire.

| Non-Toxic Shot Required Statewide |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| New Regulations Other Than Dates Are Shaded |  |  | - |  |
| DUCKS \& EARLY CANADA GEESE |  |  | OAILY LIMIT | POSSESSIONLIMIT |
| SPECIES | DATES (Inclusive) | HOURS |  |  |
| Teal | Sept. 7 - Sept. 15 (Statewide) | Sunrise to Sunset | 4 | 8 |
| Ducks | $\begin{aligned} & \text { North } \\ & \text { Oct. } 12 \cdot \text { Nov. } 30 \end{aligned}$ |  | (See section on Bag Limits) | $2 \times$ daily bag limit |
| Mergansers | $\begin{gathered} \text { Central } \\ \text { Oct. } 26-\text { Dec. } 14 \end{gathered}$ | $1 / 2$ hour before | 5 <br> (See section on Bag Limits) | $2 x$ daily bag limit |
| Coots | Nov. 9 - Dec. 28 | to sunset | 15 | 30 |
| Early Canada Geese | Sept. 7-Sept. 15 (Northeast Zone Only) |  | 5' | 10 |
| Early Canada Geese | Sept. 7-Sept. 15 (Northern Zone Only) |  | $2{ }^{2}$ | 10 |
| - Dasty bag limil is five in the Northeast Canada Goose Zone and two in that portion of the Northem Zone outside the Northeast Canada Goose Zone. <br> DAILY POSSESSION |  |  |  |  |
| GEESE | DATES (a) (Inclusive) | HOURS | DALLY <br> LIMIT | $\begin{gathered} \text { POSSESSION } \\ \text { LIMII } \\ \hline \end{gathered}$ |
| Canada Geese |  | $1 / 2$ hour before suntise to sunset | 2 | 10 |
| North \& Northern IL Quota Zone | Oct. 12-Jan. 12 |  |  |  |
| Central \& Central IL Quota Zone | Oct. 26-Jan. 26 |  |  |  |
| South Zone | Nov. 9-Jan. 31 |  |  |  |
| Southern IL \& Rend Lake Quota Zone | Nov. 9-Jan. 31 | $1 / 2$ hour before sunrise to $3 \mathrm{p} . \mathrm{m}$. (b) |  |  |
| Snow/Blue \& Ross' Geese |  | $1 / 2$ hour before sunrise to sunset | 10 | 30 |
| North \& Northern IL Quota Zone |  <br> Feb. 25-Mar. 10 |  |  |  |
| Central \& Central IL Quota Zone |  <br> Feb. 25-Mar. 10 |  |  |  |
| South Zone | Nov. 9-Jan. 31 \& Feb. 8.Mar. 2 |  |  |  |
| Southern IL \& Rend Lake Quota Zone | Nov. 9-Jan. 31 | $1 / 2$ hour before sunrise to 3 p.m. (b) |  |  |
| Southern IL \& Rend Lake Quota Zone (closed in portions ol Alexander and Union counties (c) | Feb. 8.Mar. 2 | $1 / 2$ hour before sunrise to sunset |  |  |
| White-Ironted Geese \& Brants |  | $1 / 2$ hour before sunrise to sunset | 2 Whitefronts and 2 Brants | 4 Whitefronts and 4 Brants |
| North \& Northern IL Quota Zone | Oct. 12-Dec. 20 |  |  |  |
| Central \& Central IL Quota Zone | Oct. 26-Jan. 3 |  |  |  |
| South Zone | Nov. 23-Jan. 31 |  |  |  |
| Southern IL \& Rend Lake Quota Zone | Nov. 23-Jan. 31 | $1 / 2$ hour before sunrise to 3 p.m. (b) |  |  |




|  |  |
| :---: | :---: |
| 08－1 10 unnos señunos גpunu pue 11 M <br>  <br>  <br> －08－1 10 y <br>  <br> －Repuд」－Kepuow <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  －eas ঢ̣u！！ <br> SヨNOZ $\forall I O \cap O$ SIONITII 7VZ ヨSヨココ Va甘NVO 1 NnH |  <br> ouran s，ooulmod <br>  to uoissessod u！eq ol jnymejun s！ 11 ＇elqeiejsuef jou oie jequnu <br>  to uo！！eวonaл u！גnsad pjnoo pue 00S\＄of dn jo seu！！Kq olqeys！und <br>  <br>  <br>  <br>  ssessod pue juny of mojaq pouru uosied eyl sezuounte jumed s！ 41 LNED 8 NYヨHYON ヨHL NI LIINYヨd SIONTTII 9661． |


Use a ballpoint pen or pencll to punch date of each kill．You must also report each kill by calling 1－800－WET－LAND（938－5263）within 24 hours of each kill．

Figure 7．The permit required to hurt Canada geese in 18 Quota Zont Ccunties in the North and Central Waterfowl Zones during the $1996-97$ seascn（see Fig．6）．


Figure 8. The 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 1994-1996 seasons.

Table Al. Harvest of Canada geese by waterfowl zone and county during the regular goose season in Illinois in 1994-95 through 1996-97. Due to rounding to whole numbers, some small discrepancies may occur in these data.

| County | 1994-95 | 1995-96 | 1996-97 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| North Waterfowl Zone |  |  |  |  |
| Boone | 64 | 0 | 140 | 68 |
| Bureau ${ }^{\text {a }}$ | 432 | 425 | 127 | 328 |
| Carroll | 206 | 451 | 0 | 219 |
| Cook | 271 | 1,070 | 1,003 | 781 |
| DeKalb | 77 | 116 | 38 | 77 |
| DuPage | 541 | 1,018 | 800 | 786 |
| JoDaviess | 26 | 39 | 13 | 26 |
| Kane | 1,585 | 1,108 | 1,067 | 1,253 |
| Kendall | 206 | 387 | 127 | 240 |
| LaSalle ${ }^{\text {b }}$ | 120 | 150 | 160 | 143 |
| Lake | 1,379 | 1,791 | 1,397 | 1,522 |
| Lee | 52 | 296 | 140 | 163 |
| McHenry | 2,591 | 1,418 | 2,057 | 2,022 |
| Ogle | 39 | 129 | 0 | 56 |
| Rock Island ${ }^{\text {a }}$ | 181 | 206 | 127 | 171 |
| Stephenson | 168 | 52 | 279 | 166 |
| Whiteside | 412 | 348 | 102 | 287 |
| Will ${ }^{\text {b }}$ | 232 | 417 | 721 | 457 |
| Winnebago | 799 | 2,113 | 876 | 1,263 |
| North Zone Total | 9,381 | 11,534 | 9,174 | 10,030 |
| Central Waterfowl Zone |  |  |  |  |
| Adams | 180 | 528 | 559 | 422 |
| Brown | 39 | 0 | 0 | 13 |
| Bureau ${ }^{\text {a }}$ | 432 | 425 | 127 | 328 |
| Calhoun | 296 | 309 | 686 | 430 |
| Cass | 322 | 309 | 216 | 282 |
| Champaign | 258 | 0 | 317 | 192 |
| Christian | 477 | 64 | 330 | 290 |
| Clark ${ }^{\text {c }}$ | 0 | 20 | 70 | 30 |
| Coles | 64 | 13 | 51 | 43 |
| Cumberland | 0 | 0 | 0 | 0 |
| DeWitt | 142 | 193 | 292 | 209 |
| Douglas | 26 | 39 | 51 | 39 |
| Edgar | 39 | 0 | 0 | 13 |
| Ford | 103 | 116 | 0 | 73 |
| Fulton | 5,026 | 8,802 | 5,079 | 6,302 |
| Greene | 90 | 245 | 0 | 112 |
| Grundy | 245 | 335 | 1,130 | 570 |
| Hancock | 142 | 0 | 38 | 60 |
| Henderson | 335 | 296 | 470 | 367 |
| Henry | 516 | 464 | 1,244 | 741 |

Table A1 - continued.

Table A1. Continued - page 2.

| County | $1994-95$ | $1995-96$ | $1996-97$ | Mean |
| :--- | :--- | :--- | :--- | :--- |

Central Waterfowl zone (continued)

| Iroquois | 0 | 26 | 89 | 38 |
| :--- | ---: | ---: | ---: | ---: |
| Jersey | 129 | 219 | 609 | 319 |
| Kankakee | 528 | 464 | 368 | 453 |
| Knox | 992 | 670 | 1,130 | 931 |
| LaSalle | 240 | 300 | 324 | 288 |
| Livingston | 516 | 1,031 | 89 | 545 |
| Logan | 90 | 26 | 63 | 60 |
| Macon | 129 | 39 | 305 | 158 |
| Macoupin | 593 | 284 | 373 |  |
| Madison | 309 | 619 | 990 | 639 |
| Marshall | 129 | 1,005 | 419 | 518 |
| Mason | 554 | 1,058 | 622 | 745 |
| McDonough | 26 | 541 | 0 | 189 |
| McLean | 219 | 309 | 190 | 239 |
| Menard | 180 | 39 | 0 | 73 |
| Mercer | 528 | 77 | 214 |  |
| Monroe | 129 | 348 | 190 | 222 |
| Montgomery | 26 | 77 | 38 | 47 |
| Morgan | 271 | 657 | 241 | 390 |
| Moultrie | 103 | 206 | 127 | 145 |
| Peoria | 516 | 889 | 533 | 646 |
| Piatt | 52 | 0 | 13 | 22 |
| Pike | 258 | 567 | 622 | 482 |
| Putnam | 155 | 52 | 63 | 90 |
| Rock Island | 181 | 206 | 127 | 171 |
| Sangamon | 232 | 219 | 89 | 180 |
| Schuyler | 13 | 283 | 178 | 158 |
| Scott | 206 | 90 | 0 | 99 |
| Shelby | 0 | 451 | 13 | 155 |
| St. Clair | 780 | 1,218 | 610 | 869 |
| Stark | 77 | 168 | 114 | 120 |
| Tazewell | 838 | 503 | 532 |  |
| Vermilion | 450 | 747 | 63 | 420 |
| Warren | 129 | 77 | 0 | 69 |
| Willb | 464 | 834 | 1,463 | 920 |
| Woodford | 309 | 232 | 190 | 244 |
| Central Zone | 19,083 | 26,689 | 21,065 | 22,279 |
|  |  |  |  |  |

Table A1 - continued.

Table A1. Continued - page 3.

| County | 1994-95 | 1995-96 | 1996-97 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| South Waterfowl Zone |  |  |  |  |
| Bond | 168 | 0 | 102 | 90 |
| Clark ${ }^{\text {c }}$ | 0 | 20 | 70 | 30 |
| Clay | 0 | 103 | 0 | 34 |
| Clinton | 387 | 335 | 165 | 296 |
| Crawford | 26 | 0 | 0 | 9 |
| Edwards | 0 | 39 | 0 | 13 |
| Effingham | 0 | 0 | 0 | 0 |
| Fayette | 2,126 | 1,418 | 609 | 1,384 |
| Gallatin | 26 | 0 | 51 | 26 |
| Hamilton | 13 | 0 | 0 | 4 |
| Hardin | 0 | 0 | 0 | 0 |
| Jasper | 0 | 644 | 51 | 232 |
| Johnson | 0 | 580 | 229 | 270 |
| Lawrence | 90 | 0 | 25 | 38 |
| Marion | 52 | 206 | 0 | 86 |
| Massac | 52 | 387 | 51 | 163 |
| Perry | 1,378 | 3,183 | 1,498 | 2,020 |
| Pope | 0 | 77 | 0 | 26 |
| Pulaski | 206 | 451 | 381 | 346 |
| Randolph | 438 | 1,508 | 495 | 814 |
| Richland | 168 | 64 | 38 | 90 |
| Saline | 528 | 361 | 470 | 453 |
| St. Clair ${ }^{\text {c }}$ | 780 | 1,218 | 610 | 869 |
| Wabash | 52 | 155 | 0 | 69 |
| Washington | 52 | 619 | 25 | 232 |
| Wayne | 180 | 1,070 | 292 | 514 |
| White | 0 | 13 | 267 | 93 |
| Subtotal | 6,722 | 12,451 | 5,429 | 8,201 |
| Rend Lake quota Zone | 6,573 | 5,877 | 5,028 | 5,826 |
| Southern IL Quota Zone | 25,956 | 35,414 | 25,091 | 28,820 |
| South Zone Total | 39,251 | 53,742 | 35,548 | 42,847 |
| Unknown | 75 | 513 | 76 | 221 |
| Statewide Total | 67,790 | 92,478 | 65,864 | 75,377 |

${ }^{5} 50 \%$ in North Zone and 50\% in Central Zone.
$b_{33 \%}$ in North Zone and 67\% in Central Zone.
${ }^{\text {c }} 50 \%$ 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 1994-95 through 1996-97. Due to rounding to whole numbers, some small discrepancies may occur in these data.


Table A2. Continued - page 2.

| County | 1994-95 | 1995-96 | 1996-97 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Region 3A |  |  |  |  |
| Adams | 180 | 528 | 559 | 422 |
| Brown | 39 | 0 | 0 | 13 |
| Calhoun | 296 | 309 | 686 | 430 |
| Cass | 322 | 309 | 216 | 282 |
| Christian | 477 | 64 | 330 | 290 |
| Greene | 90 | 245 | 0 | 112 |
| Hancock | 142 | 0 | 38 | 60 |
| Jersey | 129 | 219 | 609 | 319 |
| Logan | 90 | 26 | 63 | 60 |
| Macoupin | 593 | 284 | 241 | 373 |
| Mason | 554 | 1,058 | 622 | 745 |
| Menard | 180 | 39 | 0 | 73 |
| Montgomery | 26 | 77 | 38 | 47 |
| Morgan | 271 | 657 | 241 | 390 |
| Pike | 258 | 567 | 622 | 482 |
| Sangamon | 232 | 219 | 89 | 180 |
| Schuyler | 13 | 283 | 178 | 158 |
| Scott | 206 | 90 | 0 | 99 |
| Region 3A Total | 4,098 | 4,974 | 4,533 | 4,535 |
| Administrative Region 3B |  |  |  |  |
| Champaign | 258 | 0 40 | 317 140 | 192 |
| Coles | 64 | 13 | 51 | 43 |
| Cumberland | 0 | 0 | 0 | 0 |
| DeWitt | 142 | 193 | 292 | 209 |
| Douglas | 26 | 39 | 51 | 39 |
| Edgar | 39 | 0 | 0 | 13 |
| Ford | 103 | 116 | 0 | 73 |
| Iroquois | 0 | 26 | 89 | 38 |
| Livingston | 516 | 1,031 | 89 | 545 |
| Macon | 129 | 39 | 190 | 119 |
| McLean | 219 | 309 | 305 | 278 |
| Moultrie | 103 | 206 | 127 | 145 |
| Piatt | 52 | 0 | 13 | 22 |
| Shelby | 0 | 451 | 13 | 155 |
| Vermilion | 450 | 747 | 63 | 420 |
| Region 3B Total | 2,101 | 3,210 | 1,740 | 2,350 |

Table A2 - continued.

Table A2. Continued - page 3.

| County | 1994-95 | 1995-96 | 1996-97 | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Administrative Region 4 |  |  |  |  |
| Bond | 168 | 0 | 102 | 90 |
| Clinton | 387 | 335 | 165 | 296 |
| Madison | 309 | 619 | 990 | 639 |
| Monroe | 129 | 348 | 190 | 222 |
| Randolph | 438 | 1,508 | 495 | 814 |
| St. Clair | 1,560 | 2,436 | 1,219 | 1,738 |
| Washington | 52 | 619 | 25 | 232 |
| Region 4 Total | 3,043 | 5,865 | 3,187 | 4,032 |
| Administrative Region 5 |  |  |  |  |
| Clay | 0 | 103 | 0 | 34 |
| Crawford | 26 | 0 | 0 | 9 |
| Edwards | 0 | 39 | 0 | 13 |
| Effingham | 0 | 0 | 0 | 0 |
| Fayette | 2,126 | 1,418 | 609 | 1,384 |
| Gallatin | 26 | 0 | 51 | 26 |
| Hamilton | 13 | 0 | 0 | 4 |
| Hardin | 0 | 0 | 0 | 0 |
| Jasper | 0 | 644 | 51 | 232 |
| Johnson | 0 | 580 | 229 | 270 |
| Lawrence | 90 | 0 | 25 | 38 |
| Marion | 52 | 206 | 0 | 86 |
| Massac | 52 | 387 | 51 | 163 |
| Perry | 1,378 | 3,183 | 1,498 | 2,020 |
| Pope | 0 | 77 | 0 | 26 |
| Pulaski | 206 | 451 | 381 | 346 |
| Richland | 168 | 64 | 38 | 90 |
| Saline | 528 | 361 | 470 | 453 |
| Wabash | 52 | 155 | 0 | 69 |
| Wayne | 180 | 1,070 | 292 | 514 |
| White | 0 | 13 | 267 | 93 |
| Subtotal | 4,897 | 8,751 | 3,962 | 5,870 |
| Rend Lake Quota Zone | 6,573 | 5,877 | 5,028 | 5,826 |
| Southern IL Quota zone | 25,956 | 35,414 | 25,091 | 28,820 |
| Region 5 Total | 37,426 | 50,041 | 34,081 | 40,516 |
| Unknown | 75 | 513 | 76 | 221 |
| Statewide Total | 67,790 | 92,478 | 65,864 | 75,377 |


Table A3. Continued - page 2.
County ..... 1996-97
Central Waterfowl Zone (continued)
Henderson ..... 0
Henry ..... 0
Iroquois ..... 0
Jersey ..... 0
Kankakee ..... 0
Knox ..... 0
LaSalle ${ }^{\text {b }}$ ..... 0
Livingston ..... 13
Logan ..... 0
Macon ..... 0
Macoupin ..... 0
Madison ..... 25
Marshall ..... 0
Mason ..... 0
McDonough ..... 0
McLean ..... 0
Menard ..... 0
Mercer ..... 0
Monroe ..... 13
Montgomery ..... 0
Morgan ..... 0
Moultrie ..... 0
Peoria ..... 0
Piatt ..... 0
Pike ..... 76
Putnam ..... 13
Rock Island ${ }^{\text {B }}$ ..... 0
Sangamon ..... 0
Schuyler ..... 0
Scott ..... 0
Shelby ..... 0
St. Clair ${ }^{\text {c }}$ ..... 38
Stark ..... 0
Tazewell ..... 13
Vermilion ..... 0
Warren ..... 0
Will ${ }^{\text {b }}$ ..... 0
Woodford ..... 0
Central Zone Total ..... 267

Table A3. Continued - page 3.
County ..... 1996-97
South Waterfowl zone
Bond ..... 25
Clark ${ }^{\text {c }}$ ..... 25
Clay ..... 0
Clinton ..... 0
Crawford ..... 0
Edwards ..... 0
Effingham ..... 0
Fayette ..... 432
Gallatin ..... 0
Hamilton ..... 0
Hardin ..... 0
Jasper ..... 0
Johnson ..... 25
Lawrence ..... 0
Marion ..... 0
Massac ..... 0
Perry ..... 216
Pope ..... 0
Pulaski ..... 762
Randolph ..... 51
Richland ..... 0
Saline ..... 25
St. Clair ${ }^{\text {c }}$ ..... 38
Wabash ..... 0
Washington ..... 25
Wayne ..... 102
White ..... 13
Subtotal ..... 1,739
Rend Lake Quota Zone ..... 559
Southern IL Quota Zone ..... 1,498
South Zone Total ..... 3,796
Unknown ..... 0
Statewide Total ..... 4,063
50\% in North Zone and 50\% in Central Zone.
${ }^{6} 33 \%$ in North Zone and $67 \%$ in Central zone.
c50\% in Central Zone and 50\% in South Zone.


[^0]:    ${ }^{\text {a }}$ Illinois Natural History Survey.

[^1]:    ${ }^{\mathrm{a}}$ No data for 1952-1970.

