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Illinois Waterfowl Hunter Report: Harvest, Youth Hunts, and Zone Option Preferences



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WATERFOWL HUNTER REPORT:
Harvest, Youth Hunts, and Zone Option Preferences

JOB COMPLETION REPORT

WILDLIFE HARVEST AND
HUMAN DIMENSIONS RESEARCH PROGRAM

STATE OF ILLINOIS

PROJECT NUMBER: W-112-R-26
STUDY 101
JOB NO. 101.3

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OBJECTIVE

To survey waterfowl (duck, goose, and coot) hunters annually to determine their activities, harvest, characteristics, attitudes, and opinions.

ABSTRACT

A total of 1,931 (43% response rate) Illinois waterfowl hunters returned usable questionnaires to the 2016-17 Illinois Waterfowl Hunter Survey. An estimated 41,242 adult waterfowl hunters spent 1 day or more afield during 2016-17, an increase of 2.8% from the 40,104 hunters in 2015-16. Waterfowl hunters spent 870,721 days afield, an increase of 9.5% from the 795,289 days devoted during the 2015-16 license year. Waterfowl harvest increased 0.4%, from 488,321 during 2015-16 to 490,463 during 2016-17. Duck harvest estimates for the regular duck season were as follows: 154,698 mallards (*Anas platyrhynchos*), 47,986 wood ducks (*Aix sponsa*), and 130,722 other ducks. A total of 25,346 teal (*Anas spp.*) were harvested during the September teal season. Goose hunters harvested 77,216 Canada geese (*Branta canadensis*) during the regular Canada goose season, a 2.6% increase from the 75,198 Canada geese harvested during the 2015-16 regular goose season. Hunters harvested 17,711 Canada geese during the September Canada goose season, a 12.8% increase from the previous year. During the Youth Waterfowl Hunting Season, 4,398 adults took 5,921 youths waterfowl hunting, a 6.7% decrease in adult participation and a 5.9% decrease in youth participation from the 2015-16 Youth Waterfowl Hunting Season. Hunter preferences for season and zones, and satisfaction with the waterfowl seasons are also discussed.

METHODS

Mailings

A random sample of 5,000 waterfowl hunters was drawn from the population of Illinois State Waterfowl Stamp purchasers from the 2016-17 license year. No pre-season diary for recording hunting activity and waterfowl harvest was sent during the fall of 2016. On 25 April 2017, hunters were mailed an 8-page questionnaire (Appendix A), cover letter (Appendix B), and a postage-paid return envelope. The effective

sample was reduced to 4,818 questionnaires due to 182 being returned as undeliverable. A thank you/reminder postcard (Appendix C) was sent to hunters on 11 May 2017. Non-respondents were mailed a second questionnaire and cover letter (Appendix D) on 23 May 2017, followed by a second postcard mailing on 12 June 2017. A third and final questionnaire and cover letter (Appendix E) were mailed to non-respondents on 27 June 2017. Coded data were entered and analyzed using SPSS 24.0 (SPSS Inc. 2015). Confidence intervals are presented where appropriate.

Statewide Estimates

Estimates of number of hunters, days afield, and waterfowl harvested were based on confirmed sales of 58,247 Illinois Migratory Waterfowl stamps (2016-17 series) and were computed following the procedures outlined below (Anderson et al. 1998), with slight modification. The correction factors for multiple stamp buyers and stamp exempt hunters were removed in the estimates of 2016-17. The original formulas are presented for understanding how previous years' estimates were created.

The total number of active waterfowl hunters was estimated using the number of Illinois Migratory Waterfowl Stamps sold and adjusting for multiple-stamp buyers, non-hunting stamp buyers, and stamp-exempt hunters. The number of teal, duck, and goose hunters ($Hunt_{sp}$), days afield ($Days_{sp}$), birds crippled but not retrieved ($Crip_{sp}$) and harvest ($Harv_{sp}$) were calculated as follows:

$$Hunt_{sp} = Hunt_r \frac{L_t A_1 A_2}{n},$$

$$Days_{sp} = Days_r \frac{L_t A_1 A_2}{n},$$

$$Crip_{sp} = Crip_r \frac{L_t A_1 A_2}{n},$$

$$Harv_{sp} = Harv_r \frac{L_t A_1 A_2 A_3}{n}$$

Where:

$Hunt_r$ = number of respondents to the 2016-17 Illinois Waterfowl Hunter Survey who reported hunting for each species (adjustment for non-hunters is inherent),

L_t = total number of Illinois migratory Waterfowl Stamps sold in 2016-17,

A_1 = fixed reduction factor for multiple-stamp buyers (0.957; Anderson 1986),

A_2 = fixed expansion factor for stamp-exempt hunters (1.086; Anderson et al. 1998),

n = number of respondents to 2015-16 Illinois Waterfowl Hunter Survey who purchased a stamp,

$Days_r$ = total number of days spent hunting reported by respondents,

$Crip_r$ = total number of birds crippled but not retrieved reported by respondents,

$Harv_r$ = total harvest of each species reported by respondents,

A_3 = fixed reduction factor for reporting bias (0.501 for teal, ducks, and coots; Anderson 1985; 0.478 for geese; Anderson et al. 1996).

Confidence intervals for the estimated numbers of ducks, coots, and geese harvested were calculated by:

$$95\% \text{ CI } [Harv_{sp}] = \pm 2L_t \left(\frac{s}{\sqrt{n}} \right) \left(\frac{L_t - n}{L_t} \right)$$

Where s = standard deviation of total species harvest reported by respondents.

SEASON LENGTHS AND BAG LIMITS

Illinois incorporated a fourth waterfowl zone in 2011-12 for the regular waterfowl seasons and 2012-13 for the September goose season. The four zones are the North, Central, South Central, and South zones (Appendix G). The early (September) teal (*Anas spp.*) season length (16 days), daily bag (6 teal a day), and possession limits (18) remained unchanged from the 2015-16 season. Early (September) Canada goose (*Branta canadensis*) season length and start date (1 September) were the same for all four zones. Possession limit was 15 geese in the North and Central zones and 6 in the South Central and South zones. Hunters could hunt for 15 days statewide and could harvest 5 geese a day in the North and Central zones and 2 birds per day in the South Central and South zones. Length and daily bag limit of the regular duck season did not change (60-day season/6-

bird daily bag limit) in 2016; possession limit was the same for all species of duck but canvasbacks. Duck limits were a total of 18 birds, mergansers 15, and coots 45 birds. Regular Canada goose season remained unchanged (90 day/2-bird Canada goose season) in the North and Central zones. Regular Canada goose season length in the South Central and South zone was 84 days and 66 days, respectively. Possession limit remained 6 for Canada and White-fronted geese (*Anser albifrons*) and 3 for Brant geese (*Branta bernicla*).

RESULTS

Waterfowl Harvest and Days Afield

We received 2,227 questionnaires from waterfowl hunters, of which 1,931 (87%) were considered usable, for an overall response rate of 43%. Of the 1,931 usable questionnaires, 1,586 (82%) respondents indicated they purchased an Illinois State Waterfowl Stamp for the 2016-17 season (Figure 1) and 1,191 (62%) of license purchasers reported hunting 1 day or more for waterfowl (Figure 2). The number of waterfowl hunters increased from 40,104 during the 2015-16 season to 41,242 during the 2016-17 season, a 2.8% increase in the number of hunters (Figure 3 and Table 1). Hunters reported spending 870,721 days afield, an increase of 9.4% from the 795,289 days devoted during the 2015-16 license year. Total waterfowl harvest increased 0.4%, from 488,321 during 2015-16 to 490,463 during the 2016-17 season (Table 1). Twenty-nine percent of hunters hunted ducks only, 8.2% hunted geese only, and 62.5% hunted both ducks and geese (Figure 4 and Table 2).

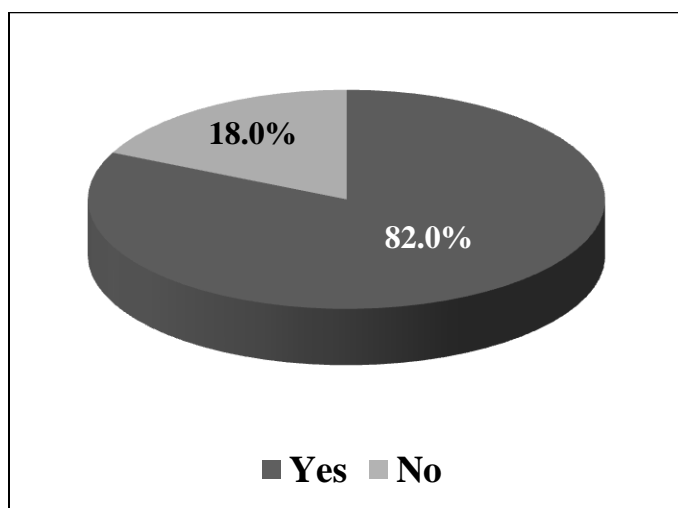


Figure 1. Percentage of hunters who purchased an Illinois State Waterfowl Stamp for the 2016-17 seasons ($n=1,931$).

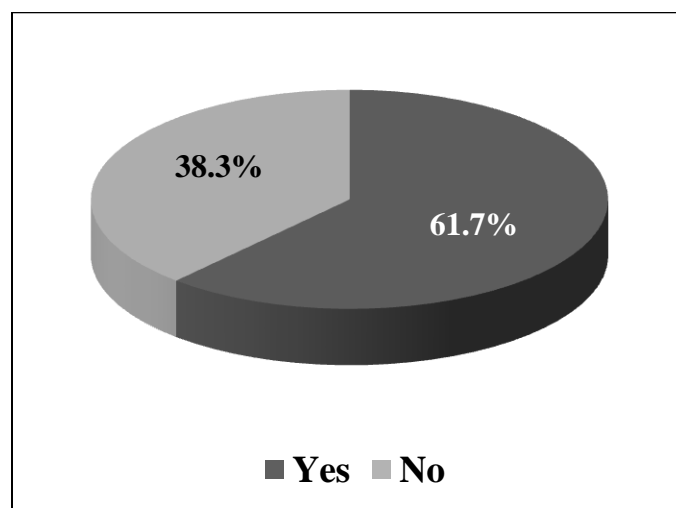


Figure 2. Percentage of license purchasers who hunted waterfowl (ducks, geese, or coots) in Illinois during the 2016-17 waterfowl hunting season ($n=1,586$).

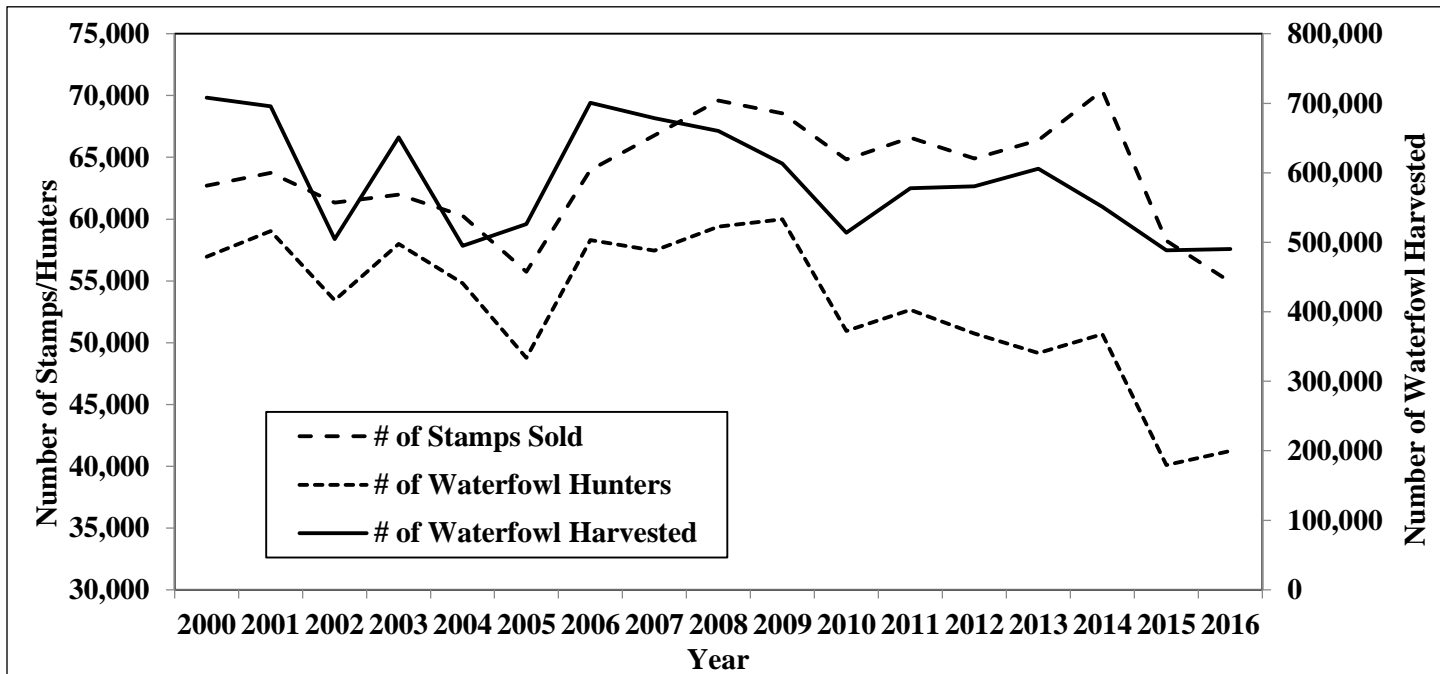


Figure 3. Number of stamps sold, waterfowl hunters, and waterfowl harvested in Illinois, 2000-2016.

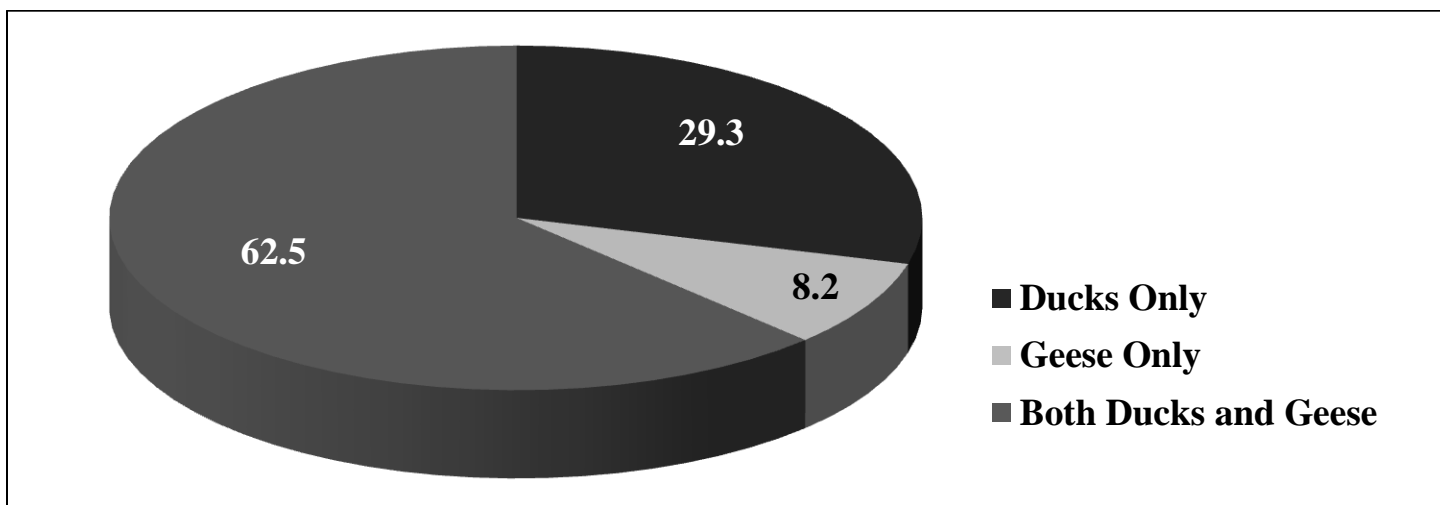


Figure 4. Percentage of hunters who hunted ducks, geese, or both during the 2016-17 Illinois waterfowl season.

September Teal Season

The number of early (September) teal season hunters decreased 6.7% from 9,615 during 2015 to 8,969 during 2016 (Figure 5 and Table 3). Days afield increased 2.7% from 37,574 during 2015 to 38,610 during 2016. Fewer numbers of teal hunters and increased days afield coincided with a decreased teal harvest of 25,346 \pm 9,296 during the 2016 September teal season, a 9.5% decrease from the 2015 harvest (28,031). The Central zone accounted for over one-half of teal hunters (50.2%), the majority of the teal harvested (52.1%), and half of

teal hunter days afield (54.1%). The South Central zone recorded the second-most days afield and harvest (Table 4). Statewide, September season teal hunters averaged 4.31 days afield, and harvested an average of 0.66 teal per hunter per day and 2.83 teal per hunter for the season (Figure 6 and Table 5).

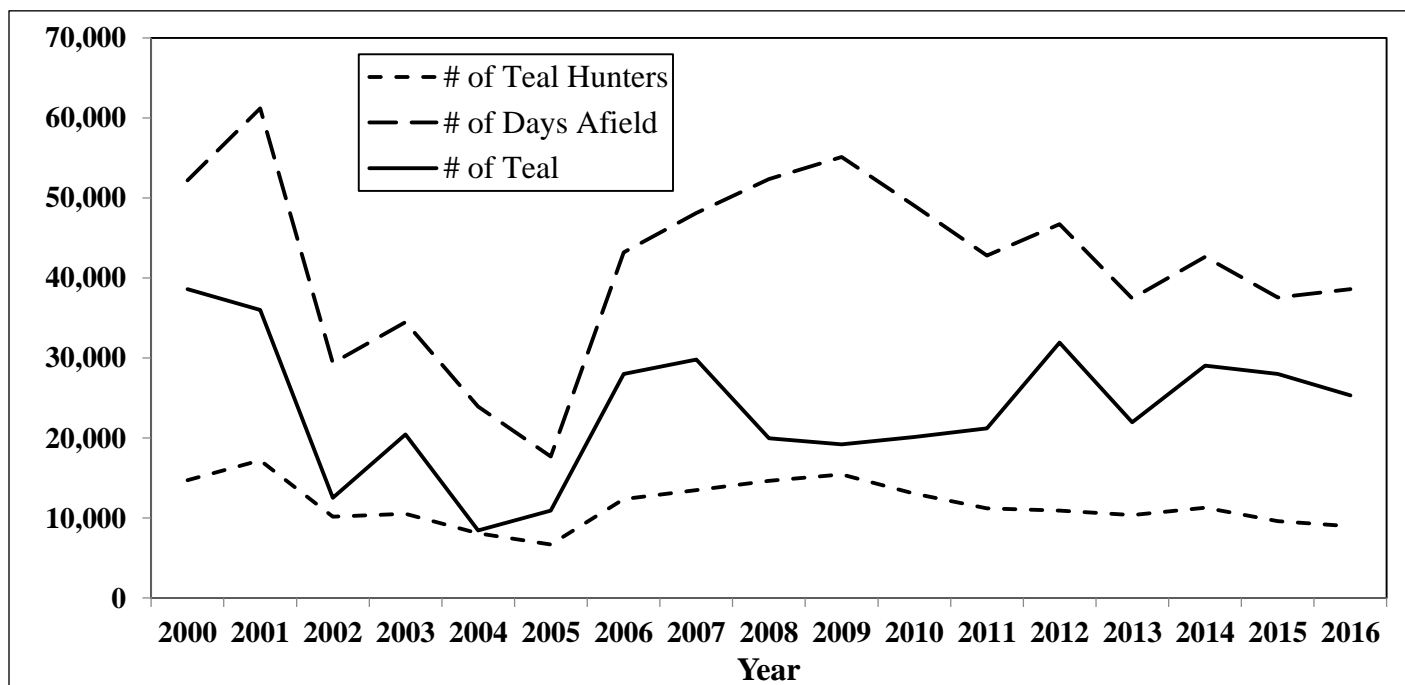


Figure 5. Number of teal harvested and hunter activity during the Illinois September teal season, from 2000-2016.

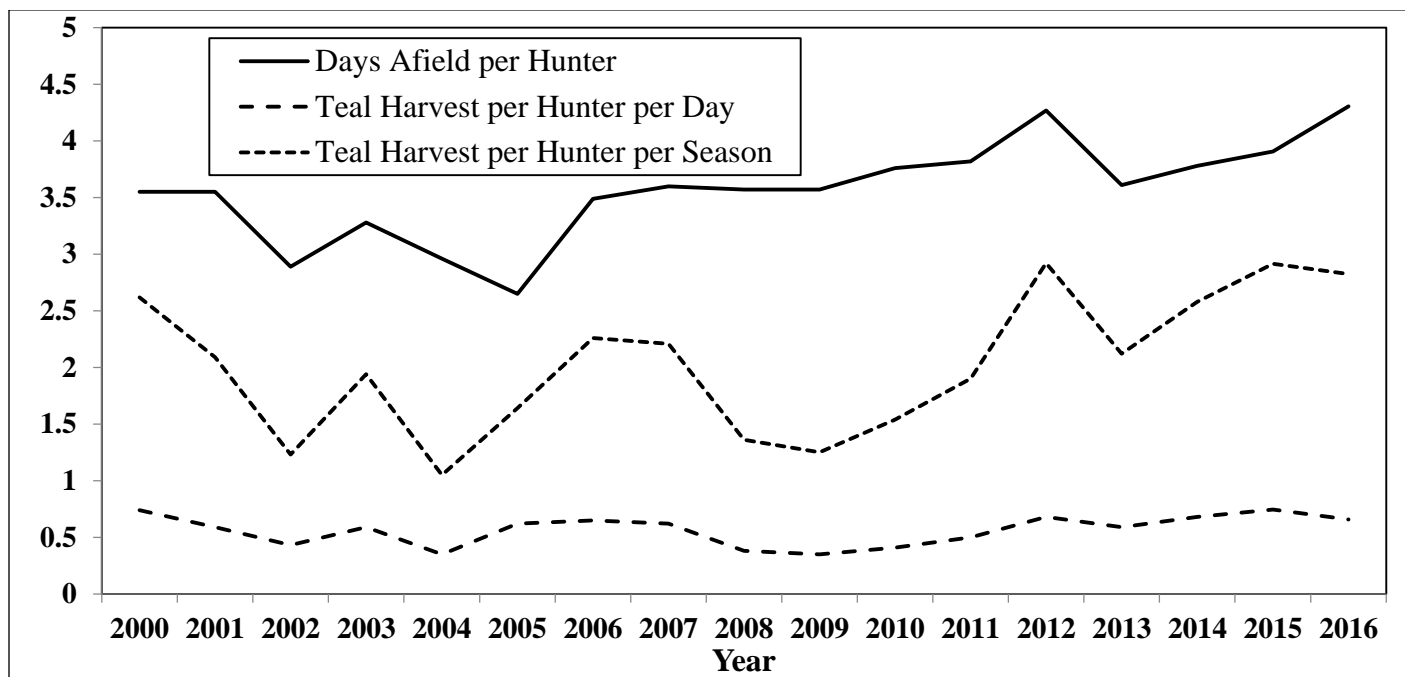


Figure 6. Rates of teal harvest and hunter activity during the Illinois September teal season from 2000-2016.

Youth Waterfowl Hunting

The Youth Waterfowl Season dates remained unchanged from 2015 to 2016, however the age of participation was raised from 16 to 17. Youth age 17 and under were able to hunt ducks, geese, and coots for two days one week prior to opening of the regular duck season in the North, Central, and South Central zones, but 12 days earlier in the South zone. Nine percent of those who purchased an Illinois waterfowl stamp took a youth hunting during the Youth Waterfowl Hunting Days (Figure 7). Number of adults who participated in the 2016 youth hunt decreased 6.8% from 4,718 to 4,398 participants, and number of youth participants decreased 5.9% from 6,291 during 2015 to 5,921 youths during 2016 (Table 6). Almost half (44%) of the hunting groups that participated in the 2016 youth waterfowl season had at least one youth who had never hunted ducks or geese before (Figure 8), and 10.1% of hunters indicated this was their first time accompanying a youth during the hunt. Harvest (ducks, geese, and coots combined) during the youth season decreased 11.9%, from 8,859 during 2015 to 7,797 during 2016.

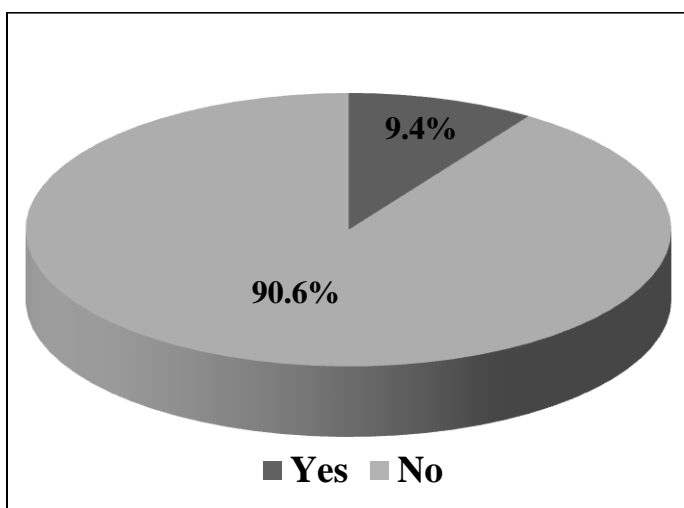


Figure 7. Percentage of hunters who took a youth (17 years old or less) hunting during the 2016 Youth Waterfowl Hunting Days ($n=1,586$).

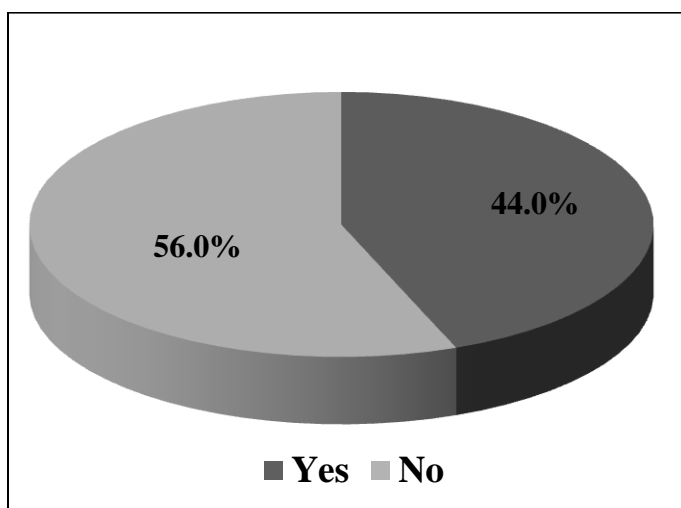


Figure 8. Percentage of hunters* who took at least one youth (17 years old or less) hunting for the first time ($n=148$).

*Cases selected for those who indicated they took a youth hunting during the 2016 Youth Waterfowl Hunting Days.

Twenty percent of respondents took a youth hunting during the regular duck or goose season; an additional four percent had a youth accompany them but did not hunt (Figure 9). Hunters were more likely to take youths hunting during the regular duck season than goose season (Figure 10). The most popular responses

for why hunters take youth waterfowl hunting was to “teach responsible and safe hunting practices” and “protect the sport for future generations” (Figure 11). Fifty two percent of waterfowl hunters have introduced a non-youth hunter to waterfowl hunting.

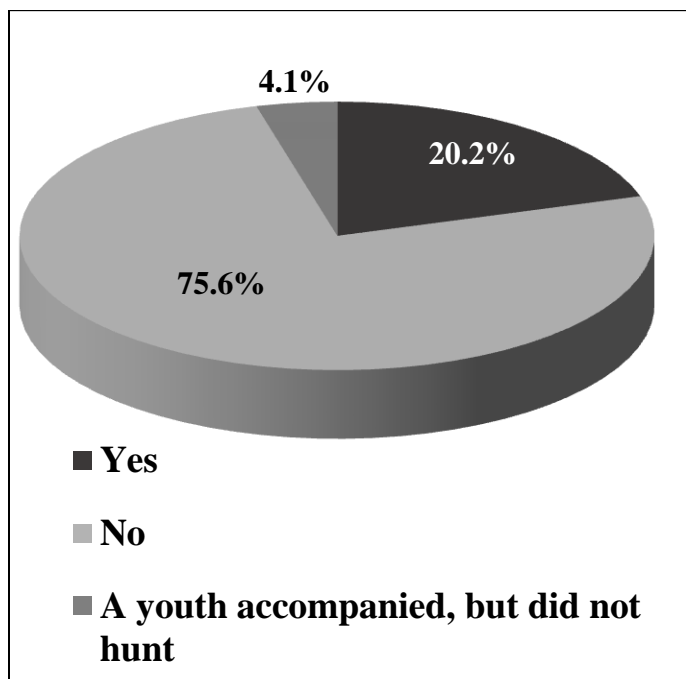


Figure 9. Percentage of hunters who took a youth (<= 17 years old) hunting during the 2016-17 regular duck or goose season in Illinois ($n=964$).

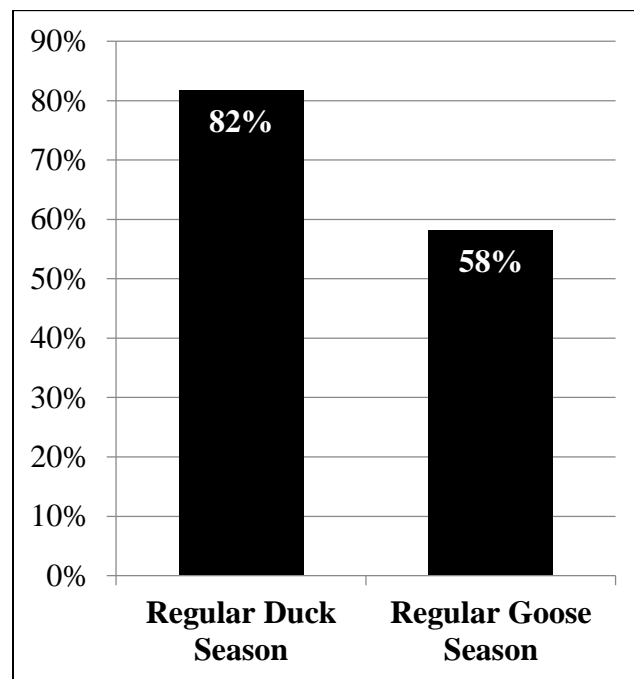


Figure 10. Seasons hunters* took a youth (<17 years of age) hunting during 2016-17 ($n=208$).
*Cases selected for those who took youth hunting or had youth accompany them while hunting.

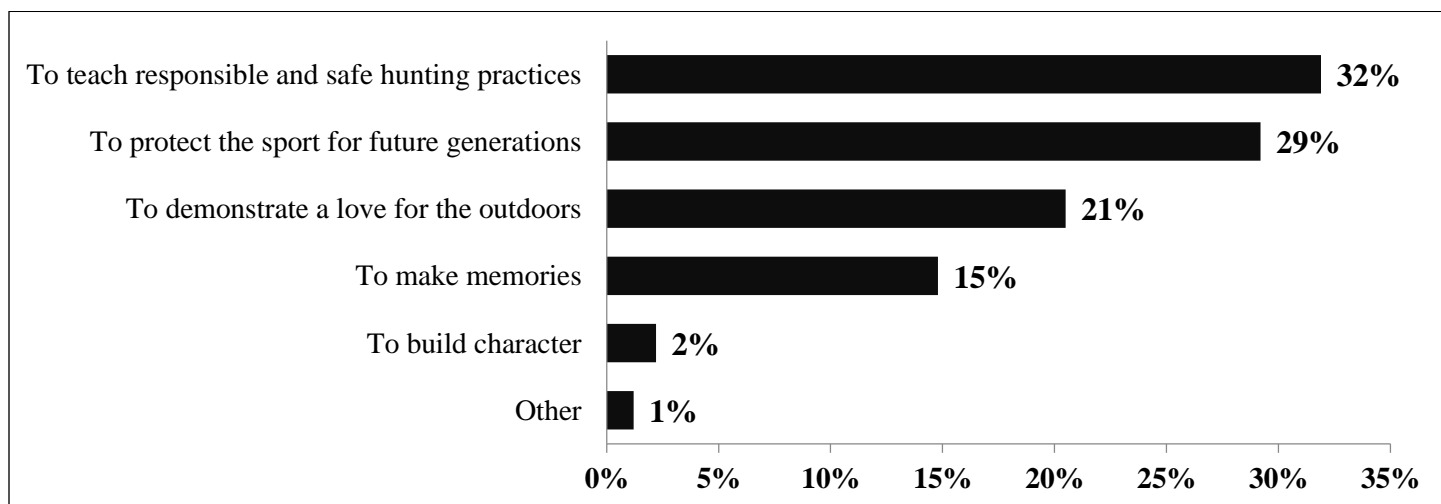


Figure 11. Reasons why hunters* take youth hunting ($n=985$).

*Cases selected for those who indicated they hunted 1 day or more during any 2016-17 waterfowl season.

Regular Duck Season

Number of duck hunters decreased by 2,113 (5.8%) from 36,499 during the 2015-16 season to 34,386 during the 2016-17 season (Table 7). Duck hunters spent 459,029 days afield ($M= 13.35$) during the 2016-17 season, a decrease of 7.6% from the 496,656 days reported during the 2015-16 season. Almost half (48.4%) of respondents hunted the Central zone most often, followed by the North, South Central, and South zones (Figure 12). The same pattern was reflected in the zones hunters hunted on opening day of the regular duck season (Figure 13); approximately 7.3% of respondents hunted opening day in multiple zones.

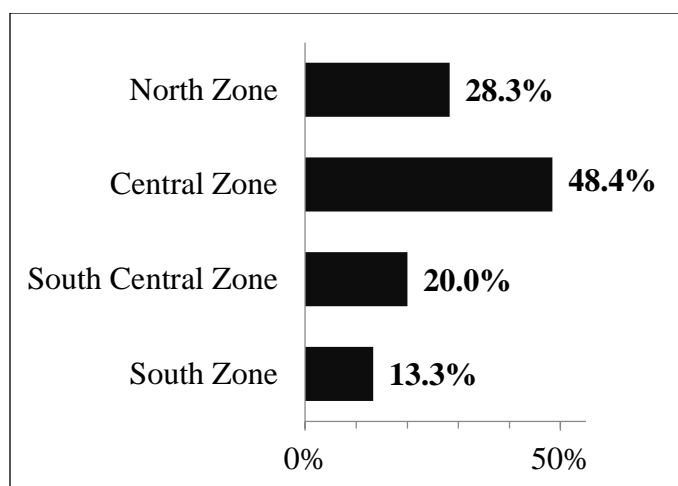


Figure 12. Zones hunters* hunted in most often during the 2016-17 duck season ($n=993$).

*Cases selected for those who indicated they hunted for at least one day during the 2016-17 duck seasons.

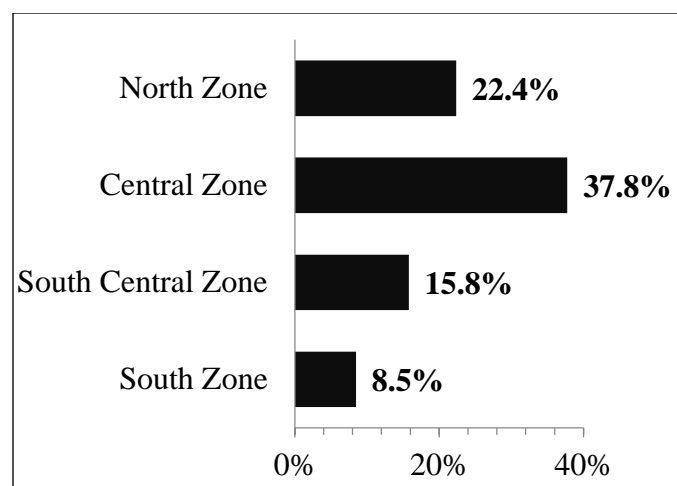


Figure 13. Zones hunters* hunted on opening day of duck season ($n=993$).

*Cases selected for those who indicated they hunted for at least one day during the 2016-17 duck seasons.

Total duck harvest during 2016-17 was 333,406, up 1.1% from the 329,780 reported for 2015-16 (Table 7). Mallards (*Anas platyrhynchos*) comprised 46.4% of the total regular season duck harvest, whereas wood ducks (*Aix sponsa*) and other ducks accounted for 14.4% and 39.2%, respectively (Figure 14). Statewide mallard harvest in Illinois decreased by 11,808 birds (7.1%) from 166,506 during the 2015-16 season to 154,698 during the 2016-17 season (Figure 15 and Table 7). Wood duck harvest increased 4,331 (9.9%) from 43,655 during 2015-16 to 47,986 during 2016-17. The harvest of other ducks increased 11,103 (9.3%) from 119,619 during 2015-16 to 130,722 during 2016-17, and statewide coot (*Fulica americana*) harvest increased

from 3,185 during 2015-16 to 4,424 coots during 2016-17. Nineteen species of duck were reported harvested in Illinois from September, 2016 through January, 2017 (Table 8). The most popular species reported as harvested during the 2016-17 regular duck season were mallards (70.9% of hunters reported they harvested at least one), followed by wood duck (44.7%), gadwall (41.4%), and green-winged teal (36.6%). These numbers do not necessarily reflect the total proportion of harvest for each species, but instead indicate the number of hunters who harvested at least one of the indicated species.

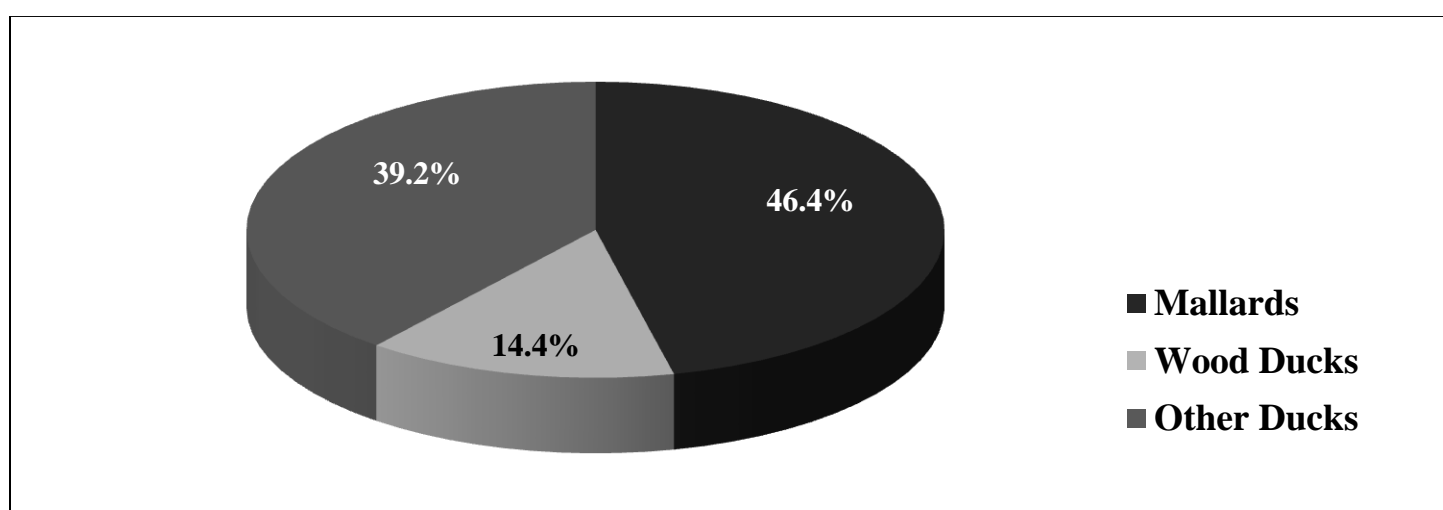


Figure 14. Proportion of Mallards, Wood Ducks, and Other Ducks harvested during the 2016-17 regular duck season.^a

^a Proportions are by mallard, wood duck, and other ducks due to how hunters are asked to report their harvest. This order (mallard, wood duck, and other ducks) is not necessarily the order of the most-often harvested ducks in Illinois.

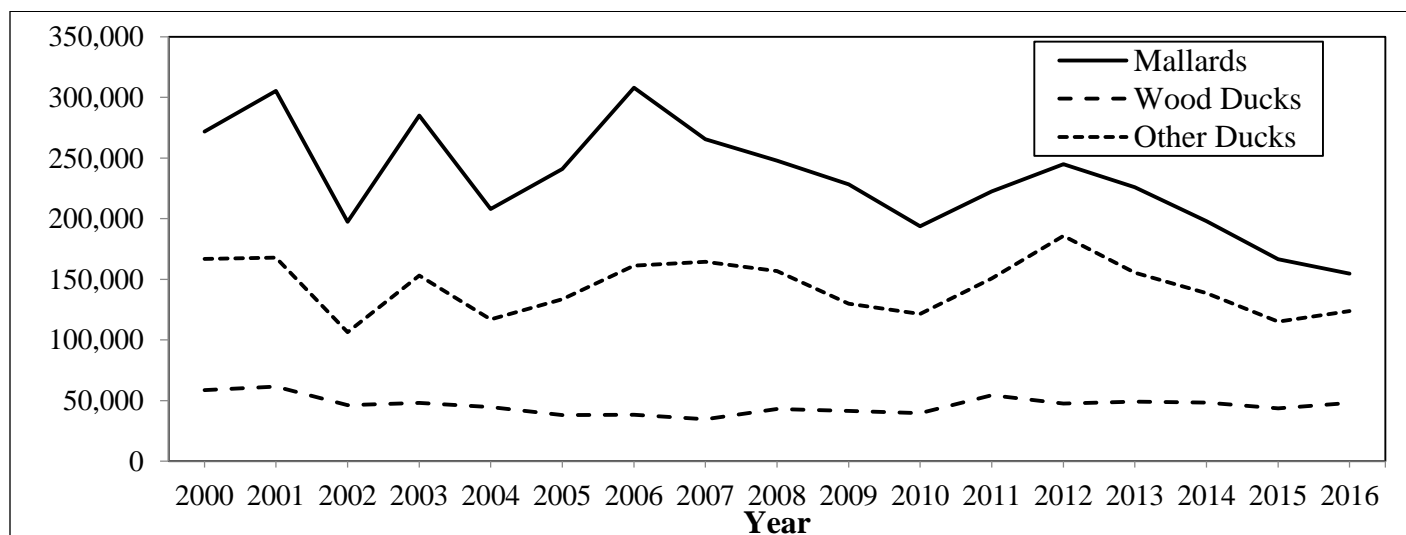


Figure 15. Illinois regular season duck harvest, 2000 – 2016.

The 2016-17 duck harvest is presented by waterfowl zones in Table 9. Across the four waterfowl zones, the greatest number of hunters, days afield, and ducks harvested occurred in the Central zone. The South zone had the highest daily success rate (harvest/hunter/day) at 0.94 ducks per day, whereas the South Central zone had the highest season success rate (harvest/hunter/season) at 11.59 ducks per season. Statewide, duck hunter daily success increased to 0.73 ducks/day and hunter season success increased from 9.01 in 2015-16 to 9.70 during 2016-17 (Table 10). Of duck hunters who reported hunting ≥ 1 day ($n=993$), 38.0% hunted 5 days or less (Figure 16 and Table 11); 11.2% of duck hunters reported not harvesting any ducks, whereas 20.3% harvested more than 30 ducks.

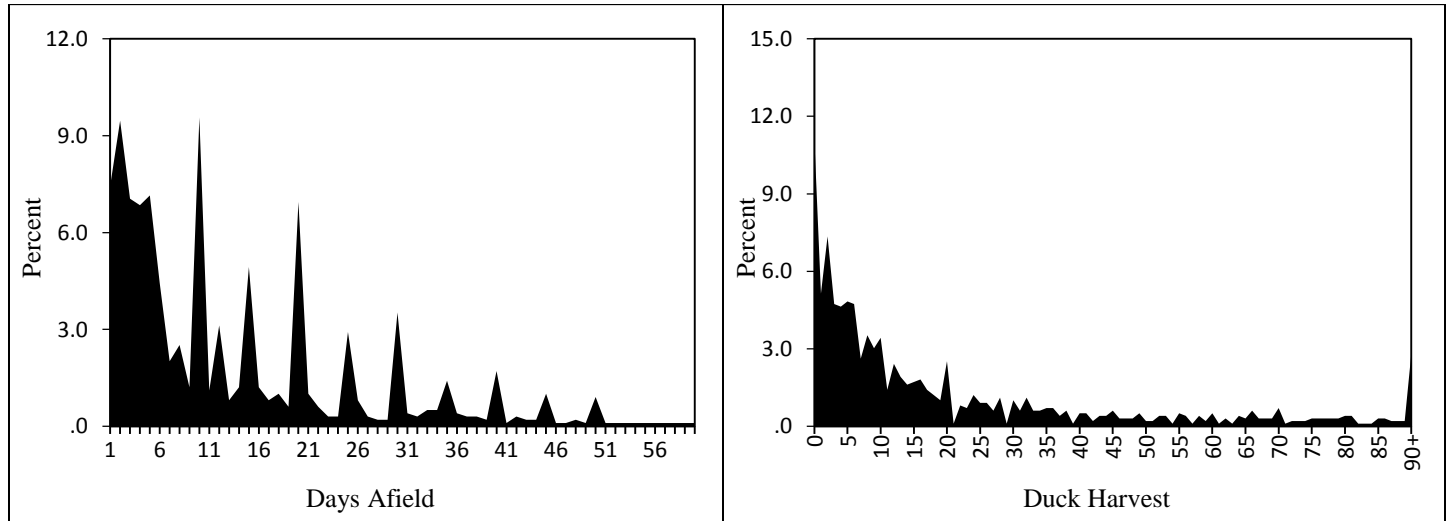


Figure 16. Distribution of days afield per hunter and ducks harvested per hunter for Illinois' during the 2016-17 regular duck season.

Fifteen percent of hunters harvested a greater variety of species this year than in the last 5 years (Figure 17). Over three-fourths (78.4%) of hunters reported using spinning wing decoys to hunt ducks during the 2016-17 regular duck season, and central zone hunters used them the most (Figure 18).

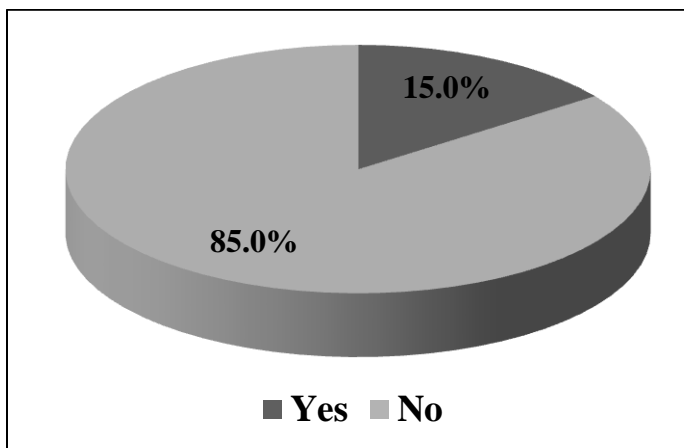


Figure 17. Percentage of hunters* who harvested a greater variety of ducks in Illinois during the 2016-17 season ($n=993$).

*Cases selected for those who indicated they hunted for at least one day during the 2016-17 duck seasons.

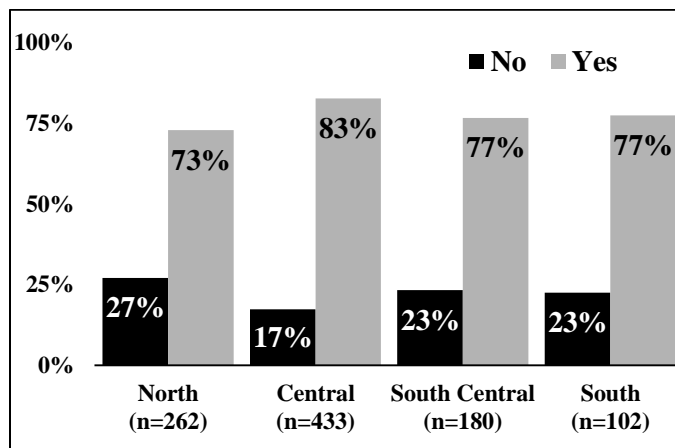


Figure 18. Percentage of hunters who used spinning wing decoys to hunt ducks in Illinois by zone.

Early September Goose Season

An estimated 9,973 hunters participated in the early (September) Canada goose season in Illinois during the 2016 season, a decrease of 6.4% from the 10,659 who participated during 2015 (Figure 19 and Table 12).

Statewide, early goose season hunters spent 41,935 days afield in 2016, 8.2% more than in 2015 (38,744), and harvested approximately 17,711 Canada geese, an increase from the 2015 (15,693) harvest by 12.8%. The

Central zone accounted for the most hunters and days afield, 51.4% and 50.0 %, respectively (Figure 20, Table 12).

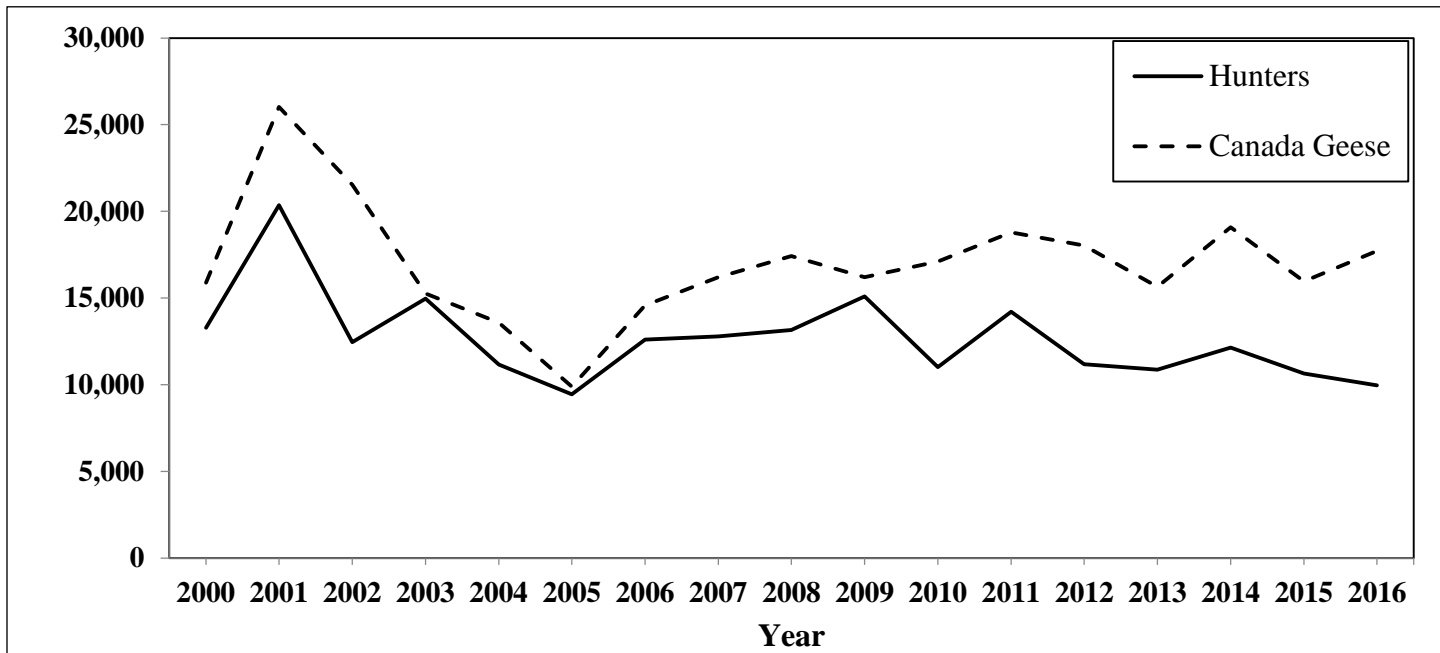


Figure 19. Early September Canada goose harvest and hunter activity, 2000-2016.

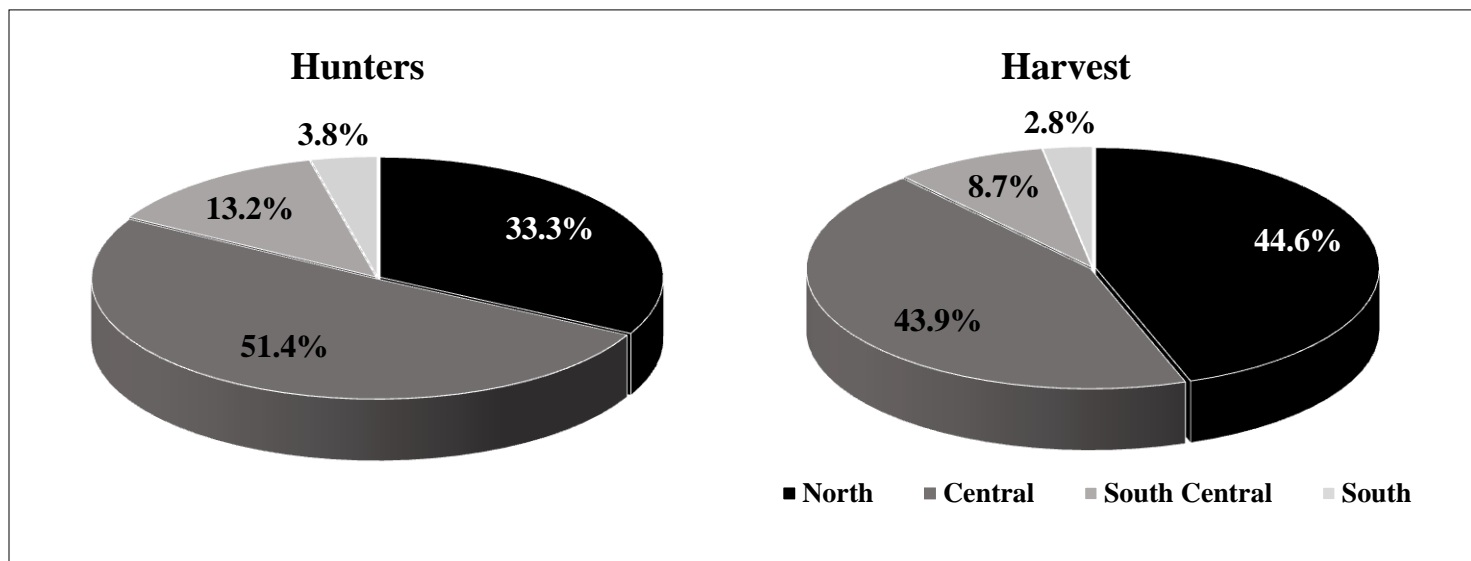


Figure 20. Early September Canada goose harvest and hunter activity by zone in Illinois during 2016.

Regular Canada Goose Season

Canada goose harvest during the 2016-17 regular goose season increased 2.6% from 2015-16 (Table 13, Figure 21). An estimated 26,490 hunters spent 312,725 days afield and harvested 77,216 Canada geese during 2016-17. Number of goose hunters in Illinois decreased 15.3% during 2016-17 compared to 2015-16, and

number of days afield decreased 5.4%. Hunters also harvested 24,563 other geese, of which 15,724 were light geese (snow, blue or Ross' geese) (*Chen caerulescens*) and 8,838 were white-fronted geese (*Anser albifrons*), for a total combined harvest of 101,779 geese (Table 13, Figure 22). Among those who hunted at least one day during regular goose season and hunted opening day, Central zone was most popular (46%), followed by North zone (31%), South Central zone (15%), and South zone (8%).

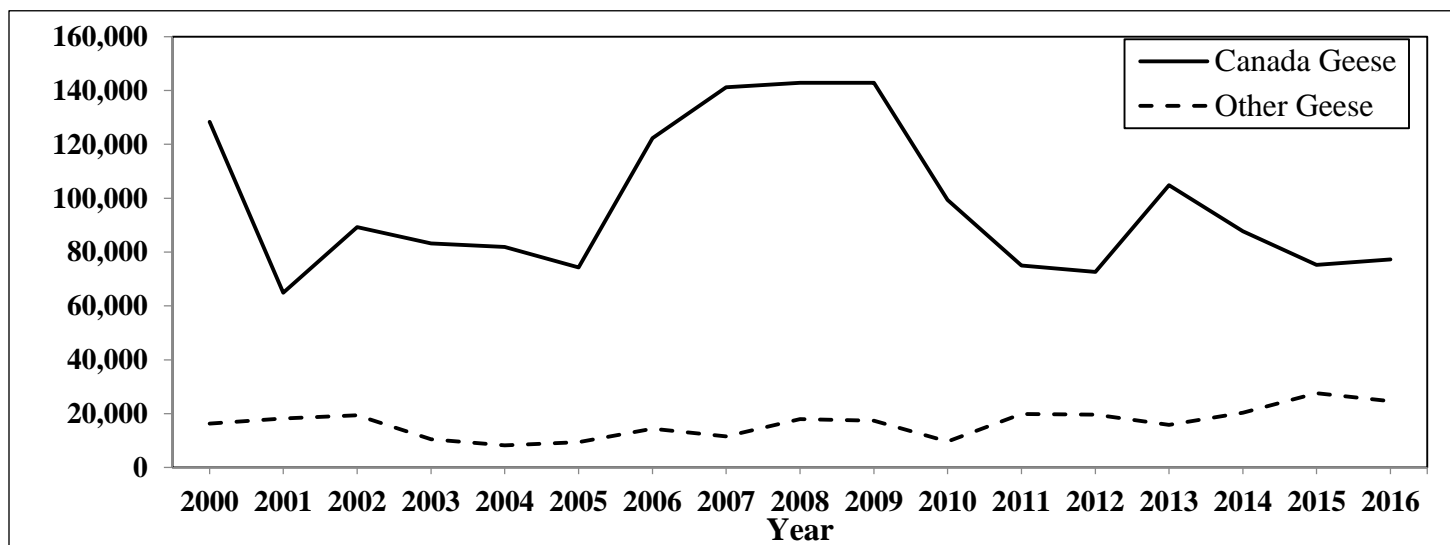


Figure 21. Goose harvest during Illinois' regular goose season from 2000-2016.

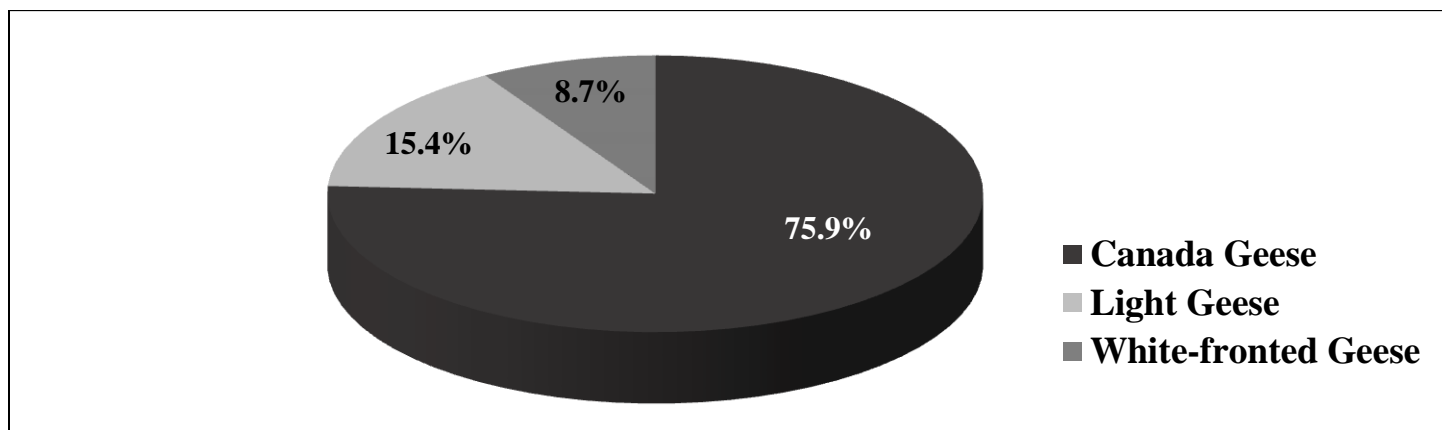


Figure 22. 2016-17 Illinois' regular Canada goose season harvest.

Goose hunters reported a mean of 11.81 days afield, mean harvest of 6.10 Canada geese, and 0.93 other geese per hunter per season; 39.5% of goose hunters harvested ≥ 5 geese (Figure 23 and Tables 14 and 15). The Central zone led the state in the number of goose hunters (51.6%), days afield (48.9%), and Canada geese harvested (50.1%); the most white-fronted (46.2%) and light geese (46.3%) were also harvested in the Central

zone (Table 15). Harvest of Canada geese is summarized by zone and year (2014-15 through 2016-17) in Table 16.

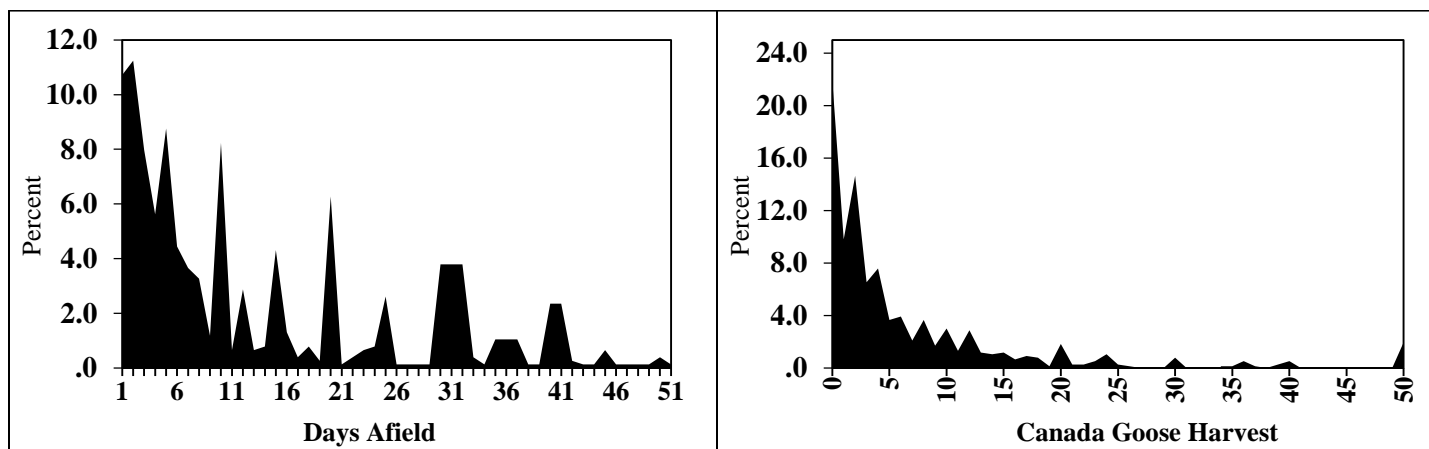


Figure 23. Distribution of days afield per hunter and geese harvested per hunter for Illinois' 2016-17 regular goose season.

Crippling Losses

Crippling losses (birds downed but not retrieved) during the 2016-17 regular season were estimated at 43,666 ducks and 6,149 geese (Table 17). These estimates, considered to be indices because they contain information about the relative number and are not actual number or abundance estimates, equate to 13.1 ducks and 5.6 geese lost per 100 harvested.

White-fronted/Specklebelly Harvest

Fourteen percent of those who hunted one day or more for geese during 2016-17 harvested white-fronted (specklebelly) geese (Figure 24). Thirty-eight percent of regular goose hunters saw more or much more white fronted geese as compared to five years ago (Figure 25). Almost half of hunters (47.8%) who targeted specklebelly geese saw more during the 2016-17 goose season than in the previous 5 years (Figure 26), and almost half (48.6%) successfully harvested one or more birds (Figure 27). Although a majority of goose hunters

(60.1%) did not target or shoot specklebelly geese specifically; 20.8% harvested them when they had an opportunity, 15.0% used specklebelly calls, and 13.7% used specklebelly decoys (Figure 28).

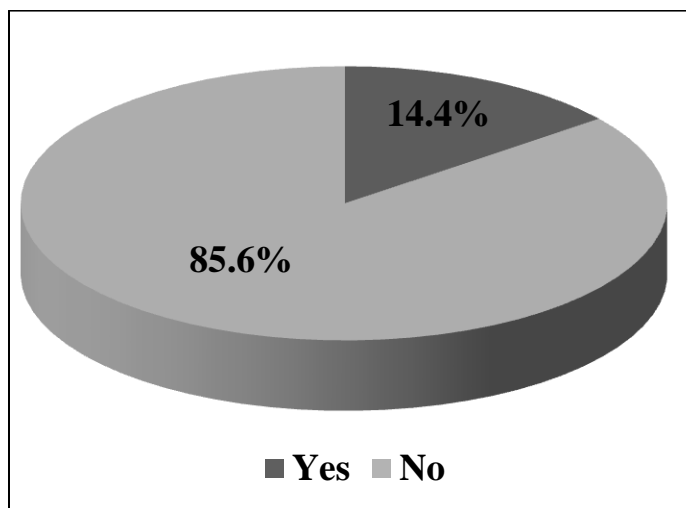


Figure 24. Proportion of hunters* who harvested white-fronted (specklebelly) geese during the 2016-17 waterfowl hunting seasons ($n=795$).
*Cases selected for those who indicated they hunted for at least one day during the 2016-17 goose seasons.

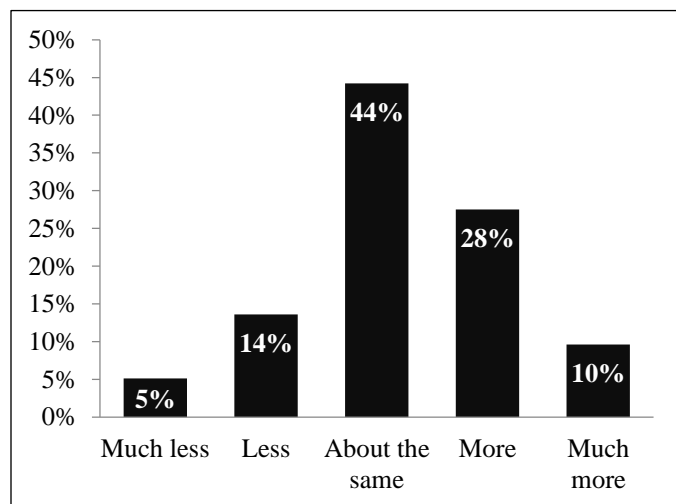


Figure 25. Comparison between the number of white-fronted geese hunters* seen in 2016-17 compared to the last 5 years ($n=795$).
*Cases selected for those who hunted for at least one day during the 2016-17 regular goose season.

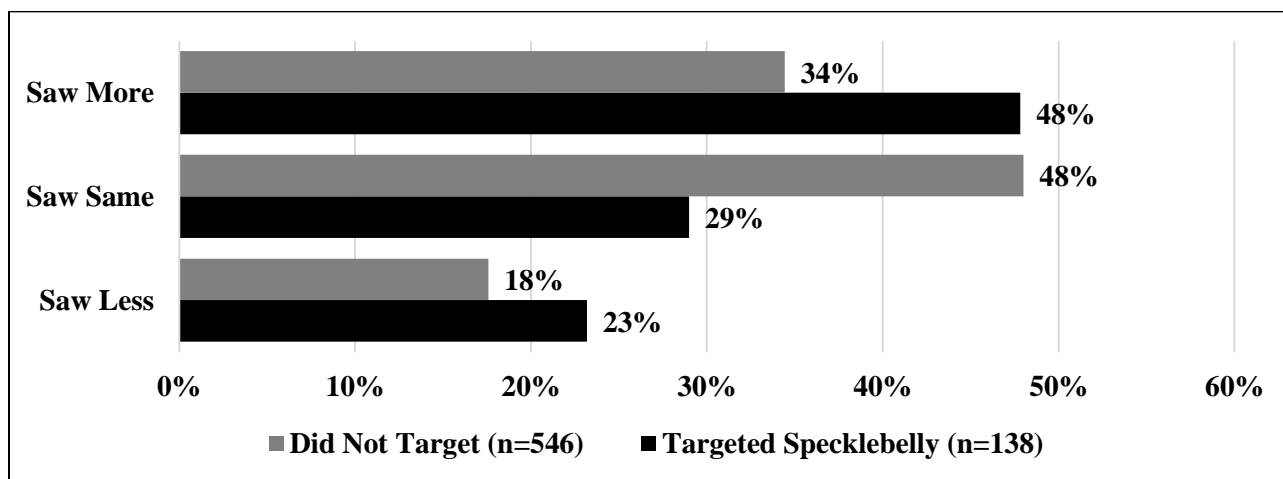


Figure 26. Comparison between the number of white-fronted geese (specklebelly) seen during the 2016-17 season compared to the last 5 years by hunters who targeted and did not target the species.
*Cases selected for those who hunted for at least one day during regular goose season.

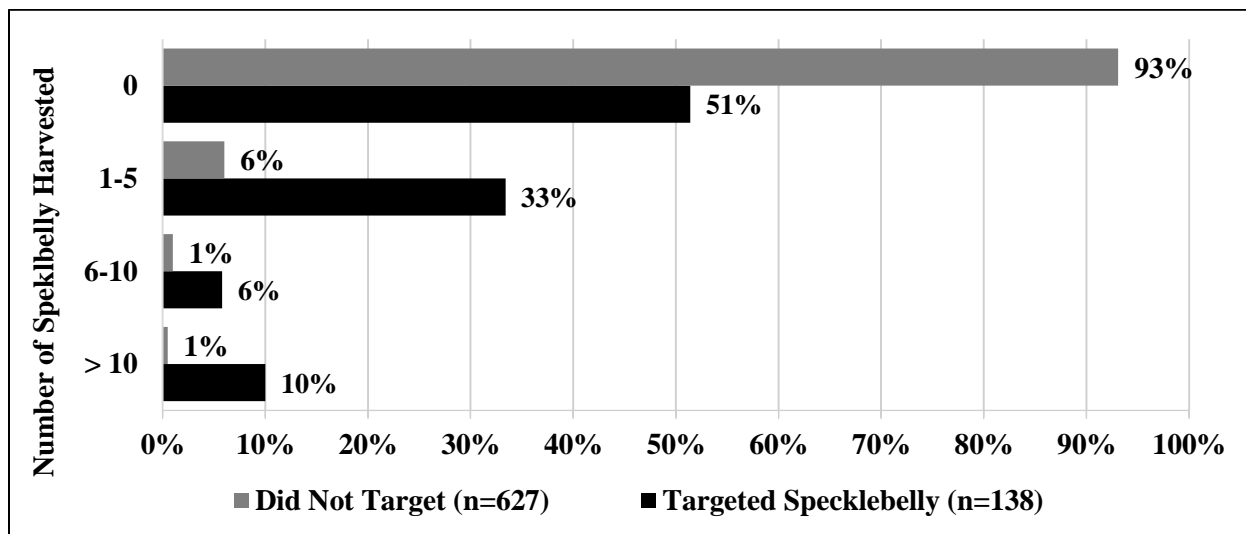


Figure 27. Percentage of goose hunter* harvest of white-fronted (specklebelly) geese during the 2016-17 Regular Goose Season by those who targeted and did not target the species.

*Cases selected for those who hunted for at least one day during regular goose season.

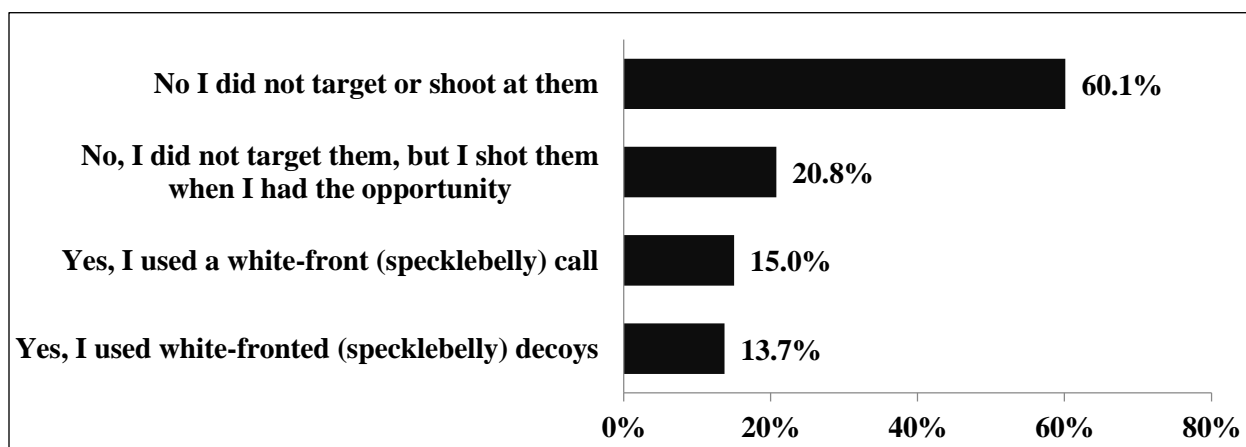


Figure 28. Proportion of hunters* who targeted white-fronted (specklebelly) geese during the Regular Goose Season ($n=765$).

*Cases selected for those who hunted for at least one day during regular goose season.

Satisfaction with 2016-17 Duck and Goose Seasons

As a condition of implementing a four-zone structure, Illinois was required to collect information on hunter satisfaction in areas of the state impacted by waterfowl zone changes. The former South zone was divided into two zones with a goal of providing preferred season dates to the majority of hunters in the South Central and South zones. South Central zone duck hunters harvested the highest average number of ducks per hunter per season ($M = 11.59$), an average of 2.52 & 5.34 ducks per hunter per season more than hunters in the

Central and North zones (respectively), and 2.47 ducks per hunter per season more than hunters in the South zone. South zone duck hunters had the highest level of satisfaction for all but one aspect of the season. South Central zone hunters were the most satisfied with the “amount of time spent duck hunting” and the least satisfied with “the number of ducks you saw” (Table 18). South Central and South zone goose hunters harvested the fewest geese per hunter per season ($M = 1.47$ and $M = 1.48$, respectively). North zone goose hunters had the highest level of satisfaction with every measured aspect of the 2016-17 season, while South Central zone hunters had the lowest level of satisfaction with “the number of geese harvested” and “number of geese migrating through the area” (Table 19).

Satisfaction with Season Timing and Zone Configuration

When asked about season timing, a majority of duck hunters in the Central (54.3%) and South Central (53.1%) zones and almost half (46.3%) of hunters in the North zone reported that the 2016-17 duck season was timed “too early” (Figure 29 and Table 20). Most teal hunters (62.9%) reported that teal season was timed “about right.” A majority of goose hunters, across the North, Central and South Central zones reported timing for the 2016-17 goose season was “about right.”

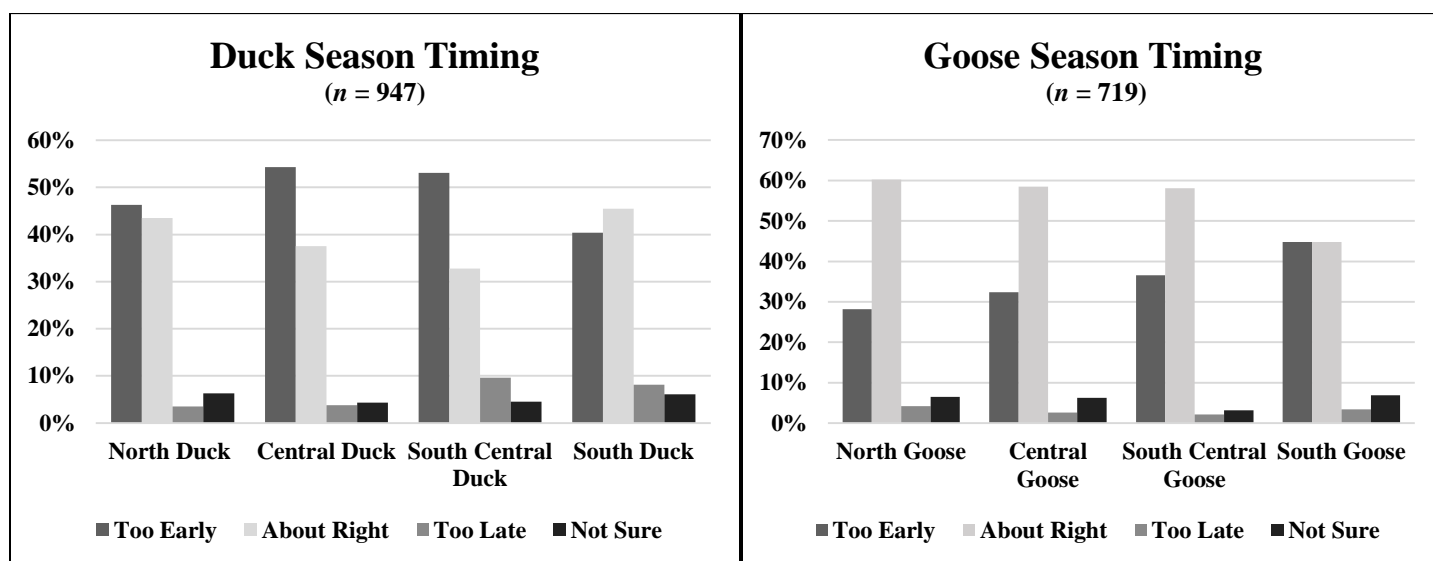


Figure 29. Duck and goose hunter* opinions about the timing of the 2016-17 waterfowl seasons.

*Cases selected for those who hunted for at least one day in the corresponding season and zone.

When asked about zone option preferences for 2021-2025 Illinois duck hunters indicated no clear majority. The most popular response among North, Central, and South zone hunters was “I do not have a preference.” In the South Central zone 39.0% of respondents preferred “three duck zones with 2 season segments (2-way split) in one, two or all zones.” The 2-way split was the second most popular choice of North and Central zone hunters, whereas “four zones with no split” was second most preferred in South zone (Table 21). Similarly, a three-zone structure preference from South Central zone hunters was noted when asked about zone structure preferences. North, Central, and South zone hunters were most likely to prefer “No change” but South Central hunters were equally interested in “no change” and a 3 zone structure that combined the South and South Central zones and left North and Central zones as they are now (Table 22).

When asked about the current location of zone lines most Illinois hunters (>75%) were neutral or satisfied with the current zone lines. The line between the South and South Central zones had the highest level of dissatisfaction (21.7%, Table 23). When asked how zone lines should change, there was no preference for moving the lines north or south, and 66% of respondents (regardless of line in question) felt the “line should not move” (Table 24). Hunters in the South Central region also were the group most likely to indicate that changing their zone would increase aspects of duck hunting such as “number of ducks you harvest” (Table 25). Whereas, hunters in the other zones were more likely to feel that “would not change”.

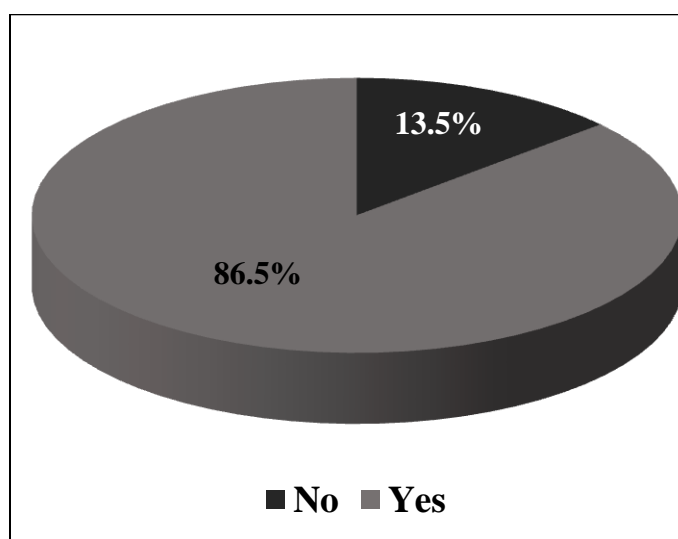


Figure 30. Percentage of waterfowl hunters that feel the county they hunt most often is in the correct zone ($n=1,133$).

The majority of waterfowl hunters felt that their county was located in the proper zone (Figure 30). Will, St. Clair, Grundy, Putnam, Fayette, Jackson, and Monroe were the counties hunters identified most as being in the wrong zones.

South Central and Southern Hunter Satisfaction

Concern with the current boundary line between the South Central and South zones was expressed at open houses during 2015. To better understand satisfaction and concerns about the current zone line attitudes of hunters in this area were used for analyses specific to this issue. Those who spent at least one day afield in Franklin, Jackson, Perry, Randolph, Saline, Union, and Williamson were designated as “hunters of concern” and their attitudes were compared to hunters of the South Central and South zones. Only hunters who spent at least one day afield in the south central or south zone were included in the analysis. When determining if a hunter was a South Central or South zone hunter, those who had hunted in both zones were recoded as a hunter of the zone they hunted most often. Though hunters of concern spent days afield in every zone, the zone hunted most often by this group was the South Central zone (Figure 31).

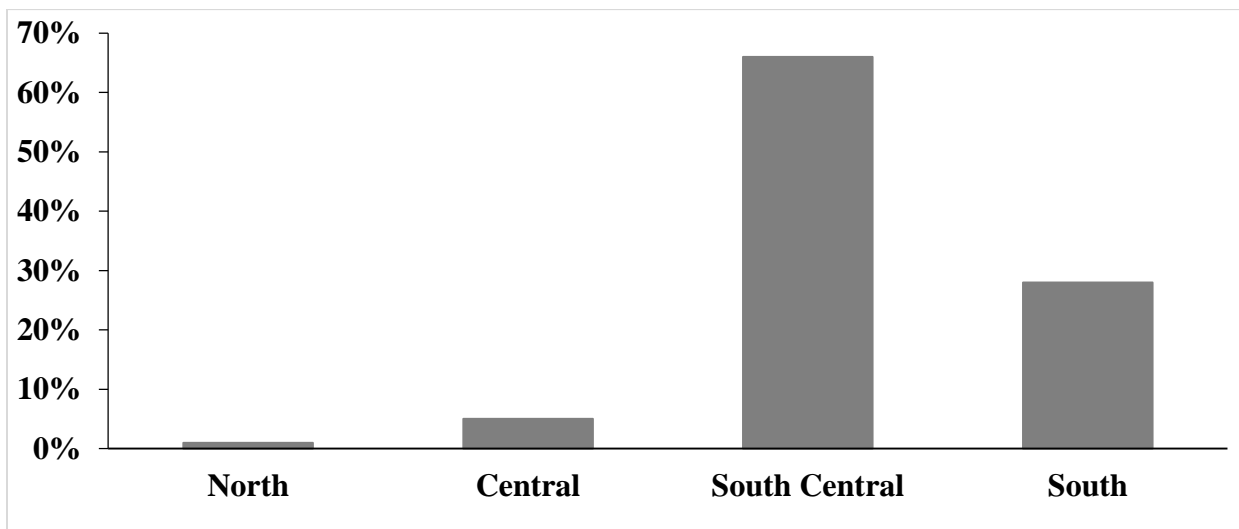


Figure 31. Zone hunted most often by hunters of concern.

Hunters in the South zone were those most satisfied with the current zone line between the south central and the south zones (Figure 32). A one-way analysis of variance (ANOVA) was conducted to compare level of

satisfaction with the current zone line between the South Central zone and South zone among South Central zone hunters, South zone hunters, and hunters in the targeted counties. Although South zone hunters had a higher satisfaction, there was no statistically significant difference in reported satisfaction with the current zone line [$F(2, 280) = 2.677, p = 0.071$].

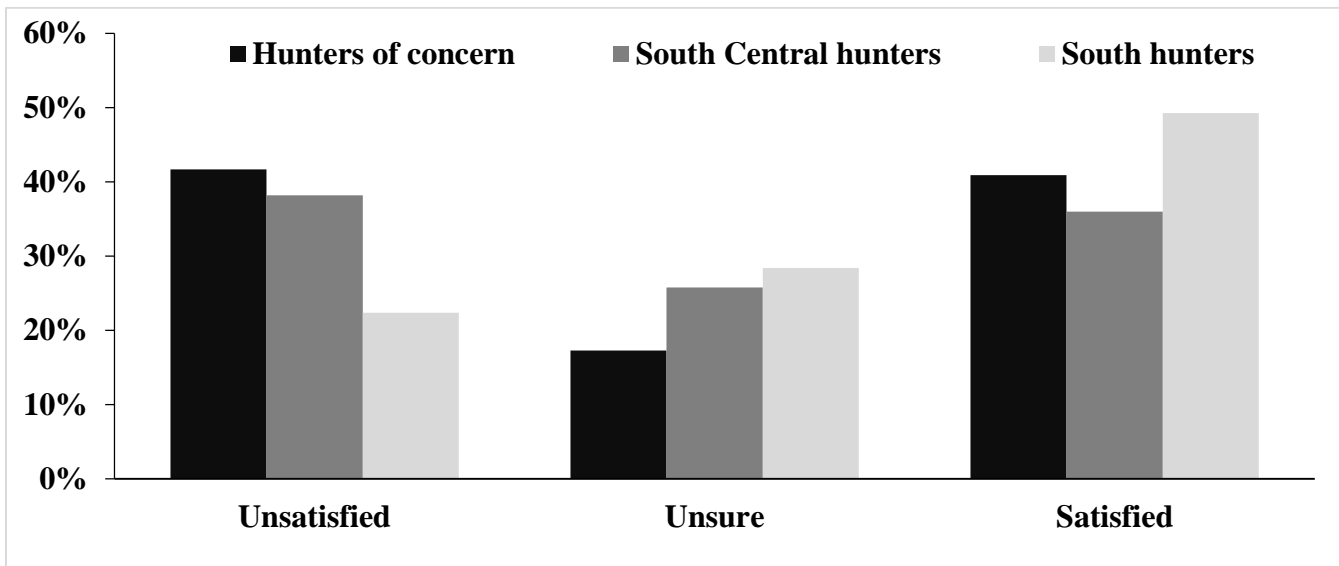


Figure 32. Percent of hunters satisfied with the current line between the South Central zone and the South zone.

When asked which direction the zone line should move most hunters, regardless of zone hunted, preferred the line not move (Figure 33). A chi-square test was performed to examine the relationship between zone hunted and directional movement of the line. The relationship was insignificant, $\chi^2(4, N = 257) = 4.626, p = .328$, indicating no statistical difference in opinion among the 3 groups.

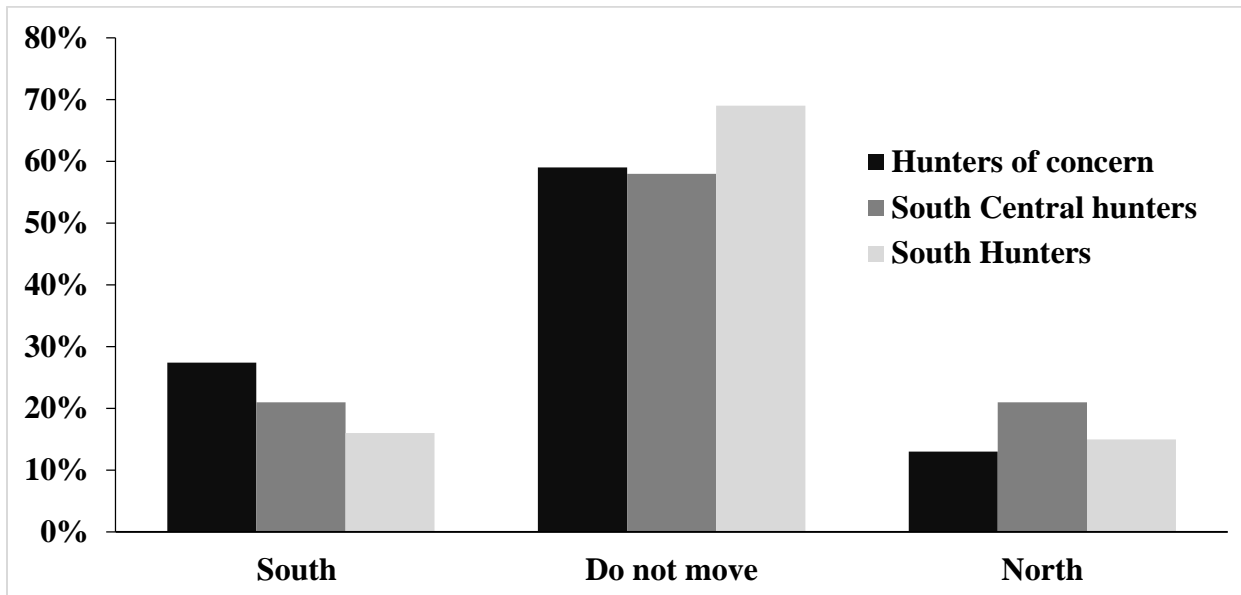


Figure 33. Percent of hunters who want the current South Central/South zone line moved in the indicated direction.

When asked if the county they hunt most often is in the correct zone, most hunters felt their hunting area was in the correct zone (Figure 34). However, an Analysis of Variance (One-way ANOVA) test indicated there was a significant difference in the percentage of hunters who felt the county they hunt in was in the correct zone [$F(2, 290) = 6.100, p = 0.003$]. Hunters in the south central zone and hunters of concern did not significantly differ, but a significantly greater number of south zone hunters indicated their county was properly zoned.

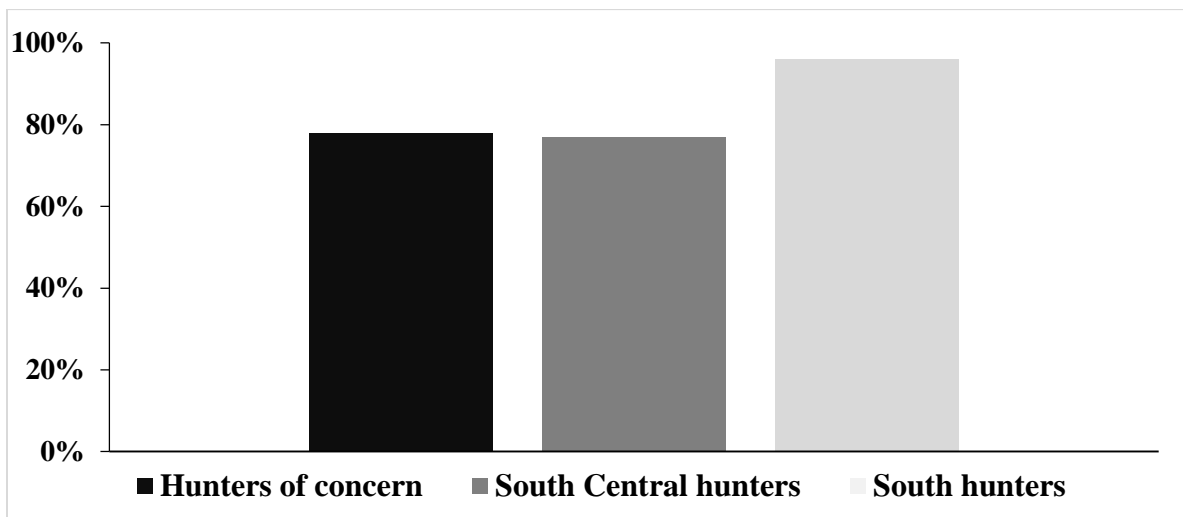


Figure 34. Percent of hunters who feel the county they hunt in most often is in the correct zone.

Hunters in the South Central zone were more likely to respond that changing the zone of the area they hunt most often would increase satisfaction aspects of their hunts (Table 26); however, hunters in the South zone were more likely to say changing the zone would have no impact. Overall, less than 16% of hunters felt changing the zone would decrease satisfaction. Statistical differences in the predicted effect of changing zones were of minimal effect size (Vaske, 2008). These differences are reflection of the most popular responses from the South Central and South zones. A majority of South Central zone hunters (46% - 61%) indicated a zone change would increase measured aspects of duck season. However, most South zone hunters (48% - 65%) felt a zone change would not change their outlook. Hunters of concern fell in between the opinions of these two groups, most likely because it is comprised of hunters that spent most of their days afield in the South Central zone.

Statistical differences in hunter's attitudes regarding changes in zone lines were minimal. Additionally, most do not want the zone line to change. Among those that do want a zone line change, most of the South Central hunters want a section of the South zone to be part of the South Central zone. The findings presented here are similar to those reported by Miller and Alessi (2012); they found hunters in the South Central zone harvested more birds, but were less satisfied and had higher expectations than hunters in other zones. Data from the 2016-17 waterfowl harvest support this same perspective, as hunters in the South Central reported the greatest success during duck season, but the least satisfaction with the number of ducks seen.

Comparisons of Central zone hunter trends

Concern with the current boundary line and season dates within the central zones was expressed at open houses during 2015. To better understand satisfaction and concerns about the current zone line, attitudes of hunters in this area were used for analyses specific to this issue. Two main groups of hunters in the Central zone were identified, those bordering the Illinois and Mississippi rivers and those in the eastern portion of the state. River counties were identified as: Adam, Brown, Bureau, Calhoun, Cass, Fulton, Greene, Hancock, Henderson, Jersey, Madison, Marshall, Mason, Mercer, Monroe, Peoria, Pike, Putnam, Schuyler, Scott, St. Clair, Tazewell,

and Woodford. East central counties are: Champaign, Christian, Coles, Cumberland, DeWitt, Douglas, Edgar, Ford, Iroquois, Kankakee, LaSalle, Livingston, Logan, Macon, Macoupin, McLean, Menard, Montgomery, Moultrie, Piatt, Sangamon, Shelby, Vermillion, and Will. The remaining counties in the Central zone; Knox, McDonough, Stark, and Warren were labeled the north central hunters. Only hunters who spent at least one day afield in the Central zone were included in the analysis. When determining which group a Central zone hunter belonged, those who had hunted in multiple counties were recoded as a hunter of the area they hunted most often.

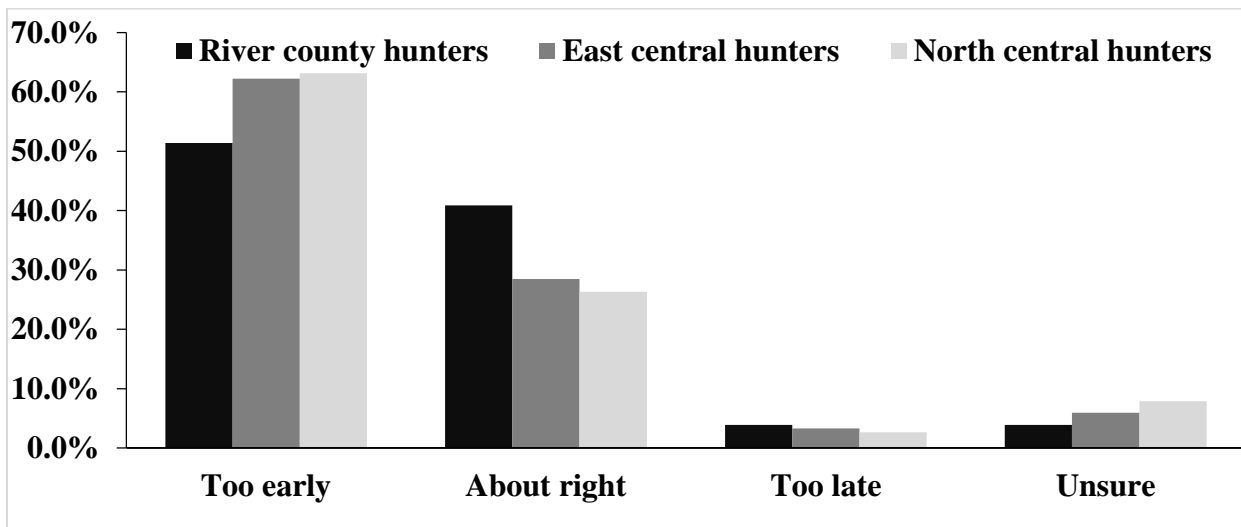


Figure 35. Central zone hunters' opinions regarding the start date of duck hunting season.

Hunters in the central east group and central north group were slightly more likely to feel that the timing of duck season was too early (Figure 35), but there was not a significant difference in responses, $\chi^2(6, N = 551) = 10.47, p = .106$. Similarly, when asked about changing the current zone structure for 2021-2025, there were no statistically significant differences in opinion (Table 27). Over one-third (34.9%) of hunters preferred no change in the current zone structure, and almost 9% preferred a reconfigured 4-zone structure. Approximately 20% of Central zone hunters preferred the 2006-2010 3-zone structure, and the remainder of hunters preferred some combination of 3-zone structure by combining 2 current zones. A significant difference was found when looking at preference toward a 3-zone configuration and split options, as a larger proportion of Central north hunters desired a 3-zone option (Figure 36) with a 2-way split, whereas River and

Central east county hunters were more likely to choose ‘No preference’ $\chi^2 (6, N = 567) = 20.553, p = .002$.

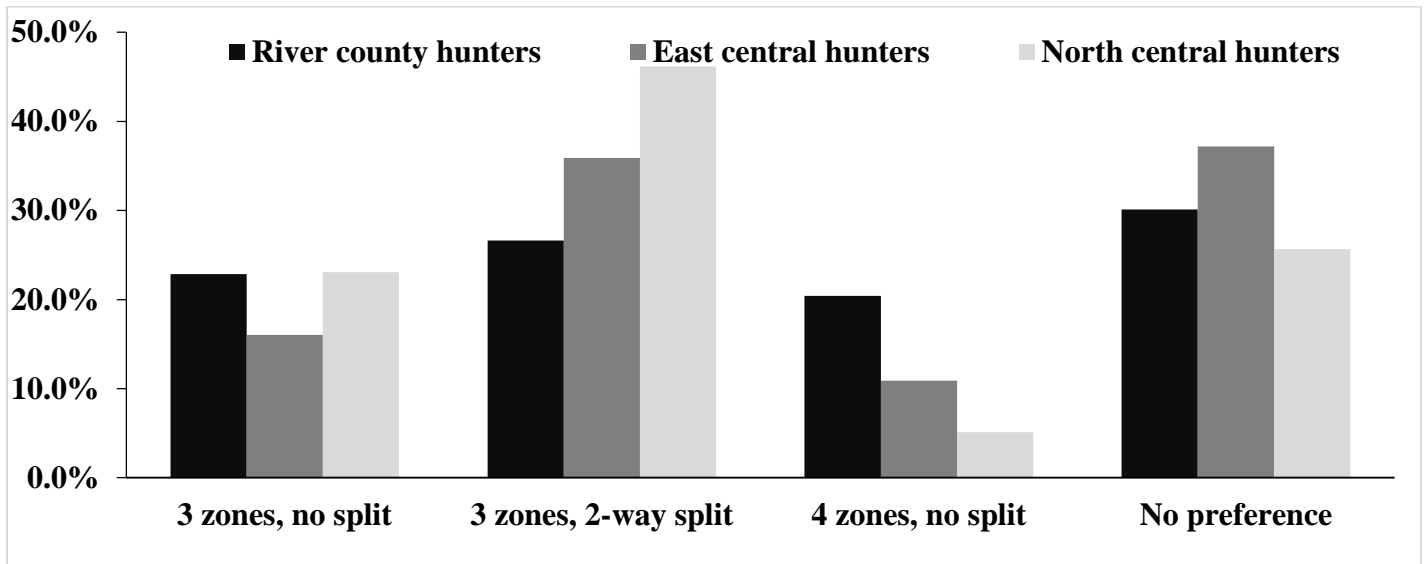


Figure 36. Central zone hunters' preferences for number of zones and season splits.

Three one-way analysis of variance (ANOVA) were conducted to compare level of satisfaction with the current zone line between the Central zone and adjacent zones. Central zone hunters were mostly satisfied or unsure about the zone placement of zone lines, and 25% or less of hunters were dissatisfied with the current location of a zone line. River county hunters were the most satisfied group with regards to the zone line between the North and Central zones (Figure 37), and group responses did not differ significantly [$F(2, 475) = .1911, p = 0.149$].

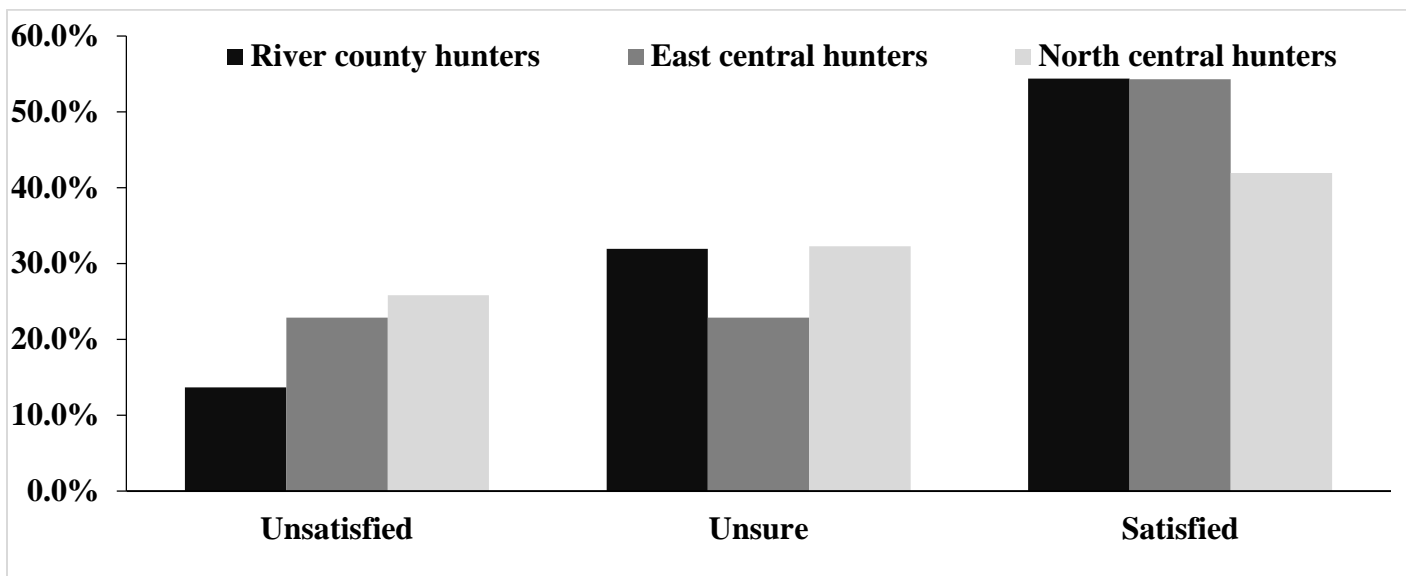


Figure 37. Percent of Central zone hunters satisfied with the current line between the Central zone and the North zone.

Central east hunters were the most satisfied group with the line between the Central zone and both the South Central and South zone (Figure 38, Figure 39). Analysis indicated no significant difference in satisfaction with the South Central zone line [$F(2, 455) = .159, p = 0.853$] or the South zone line [$F(2, 433) = .757, p = 0.470$].

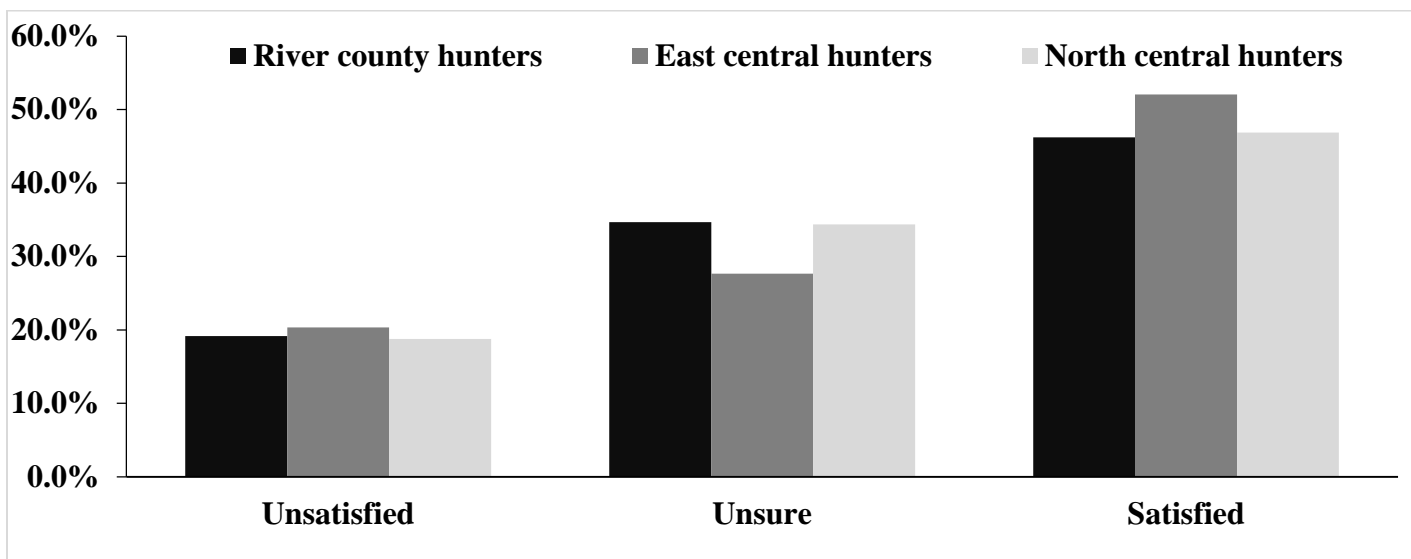


Figure 38. Percent of Central zone hunters satisfied with the current line between the Central zone and the South Central zone.

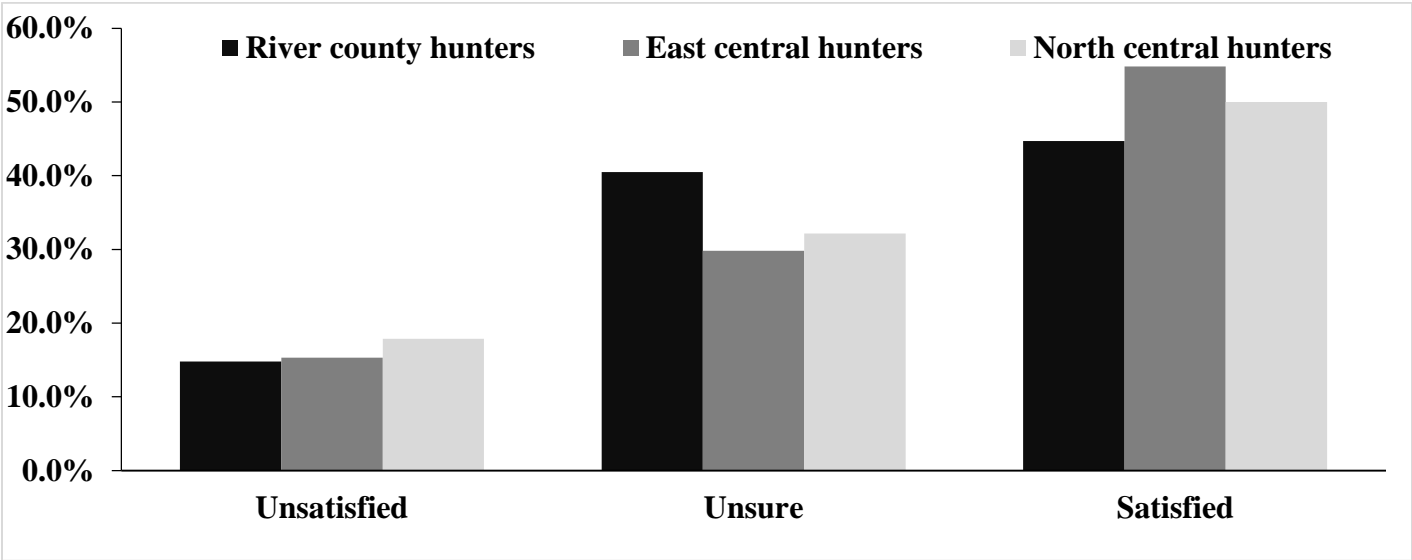


Figure 39. Percent of Central zone hunters satisfied with the current line between the Central zone and the South zone.

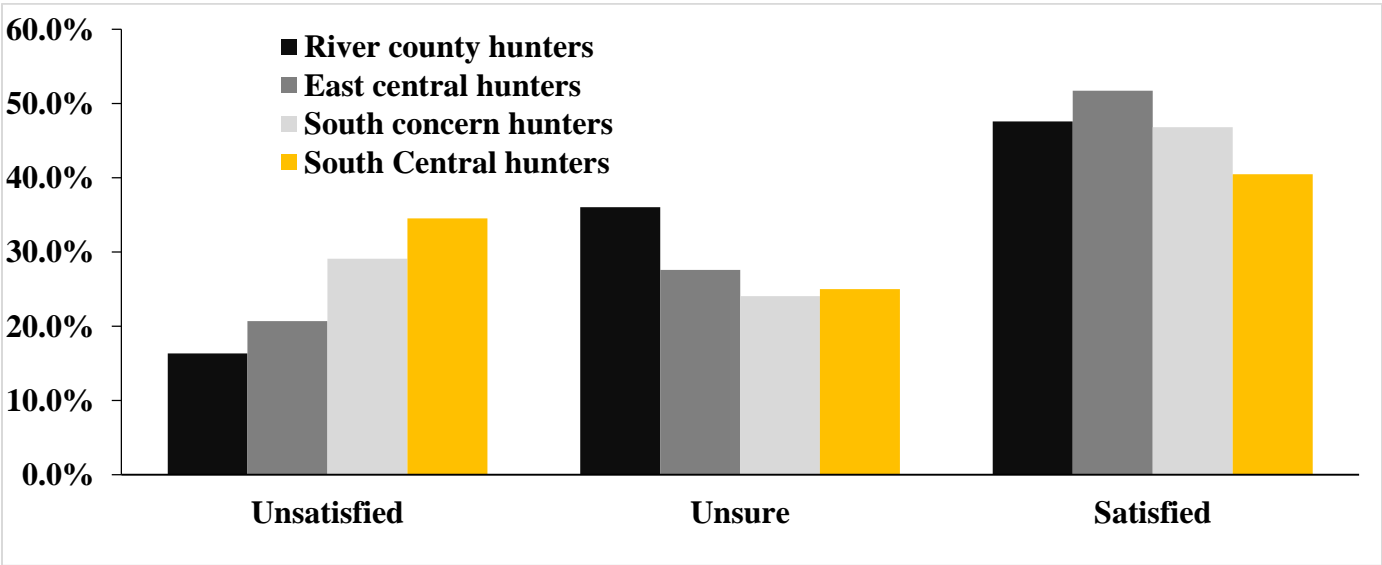


Figure 40. Percent of Central and South Central zone hunters satisfied with the current line between the Central zone and the South Central zone.

Central east hunters were more satisfied than South Central zone hunters with the Central/South Central zone line (Figure 40). A comparison of satisfaction level using a one-way ANOVA indicated that the difference in opinion was statistically significant [$F(3, 544) = 2.635, p = 0.049$]. Similarly, hunters in the Central east group were most satisfied with the zone line separating the Central and South zones (Figure 41). A one-way

ANOVA revealed that differences in opinion by hunter group were not significantly different [$F(3, 486) = 1.404, p = 0.241$]

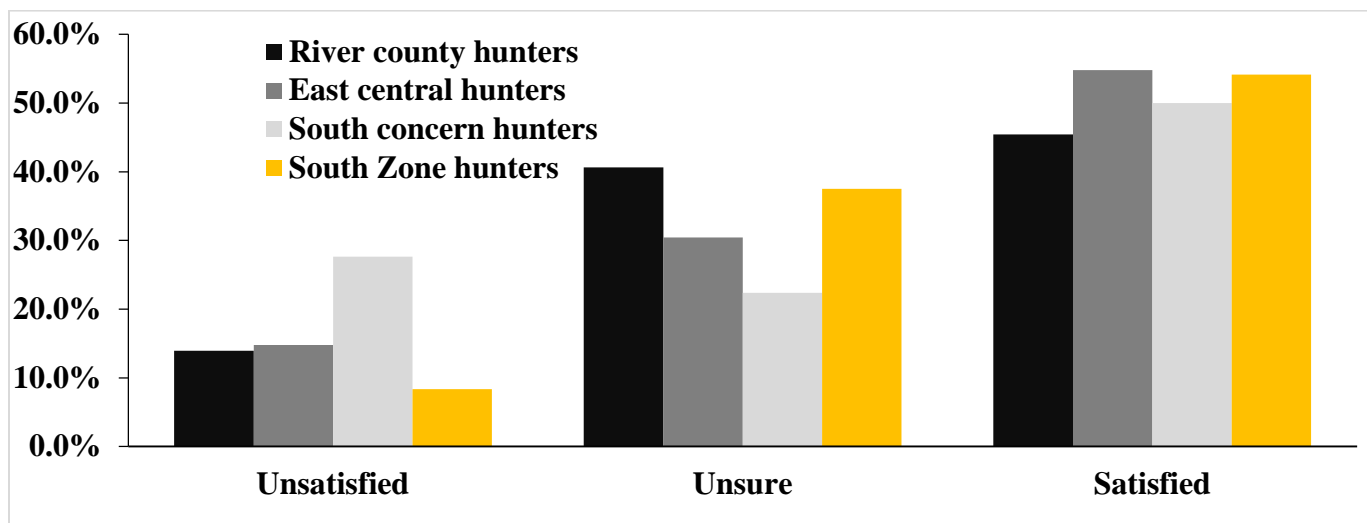


Figure 41. Percent of Central and South zone hunters satisfied with the current line between the Central zone and the South zone.

When asked which direction the North/Central zone line should move, most hunters regardless of area hunted, preferred the line not move (Figure 42). A chi-square test was performed to examine the relationship between zone hunted and directional movement of the line. The relationship was insignificant, $\chi^2(4, N = 429) = 7.445, p = .114$, indicating no statistical differences in opinion among the 3 groups.

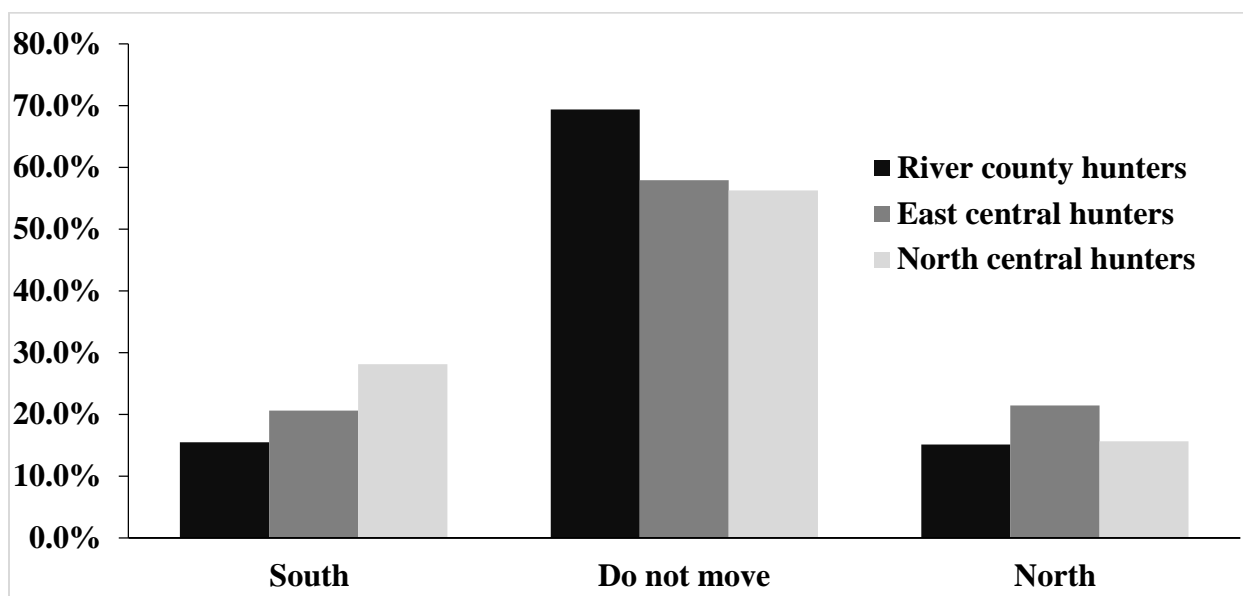


Figure 42. Percent of Central zone hunters who want the current Central/North zone line moved in the indicated direction.

Similarly, when asked about the Central/South Central line (Figure 43) and the Central/South line (Figure 44) most hunters preferred that the line “not move”. Analysis indicated that any differences in directional movement of the Central/South Central line [$\chi^2(4, N = 384) = 1.789, p = .775$] and the Central/South line [$\chi^2(4, N = 354) = 2.188, p = .701$] did not differ significantly by hunter group.

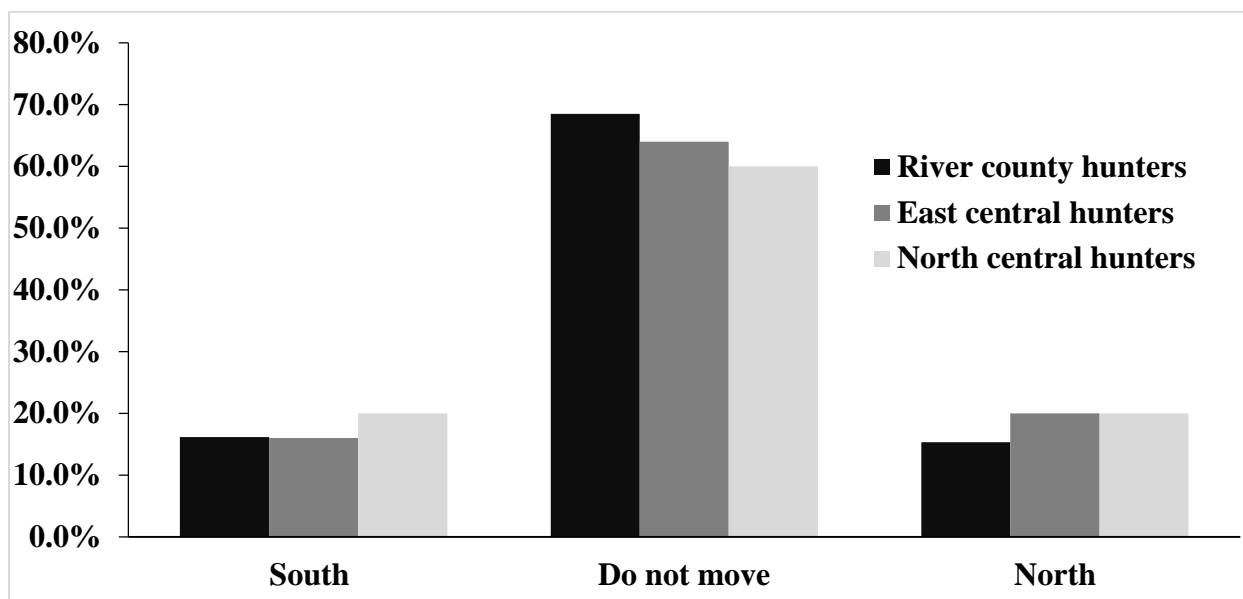


Figure 43. Percent of Central zone hunters who want the current Central/South Central zone line moved in the indicated direction.

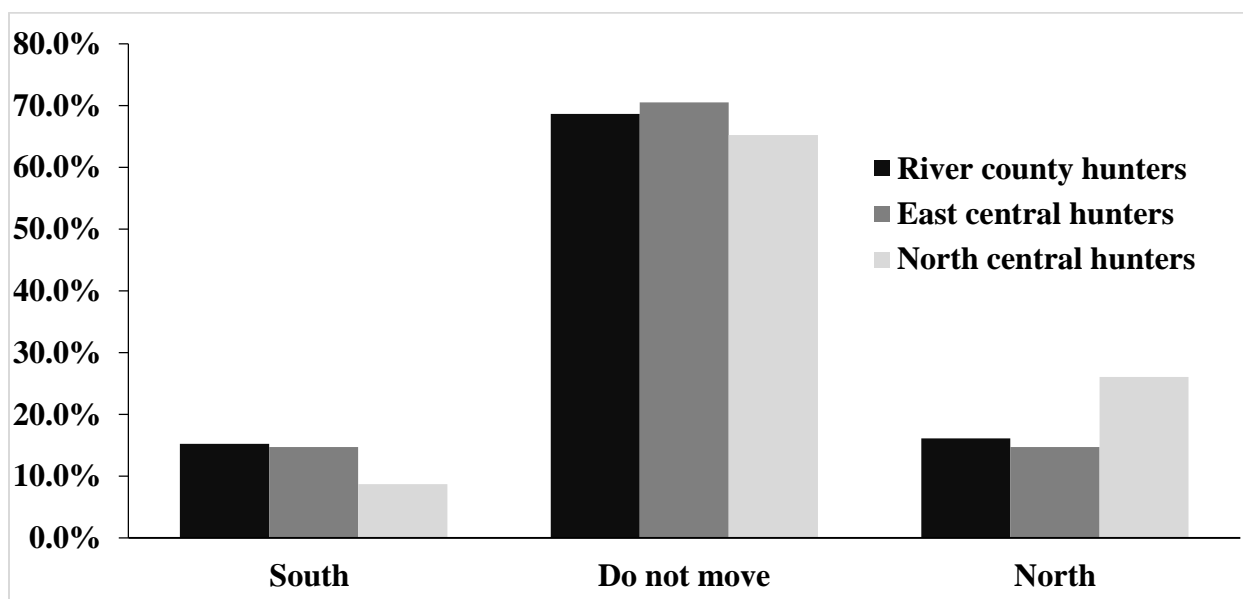


Figure 44. Percent of Central zone hunters who want the current Central/South zone line moved in the indicated direction.

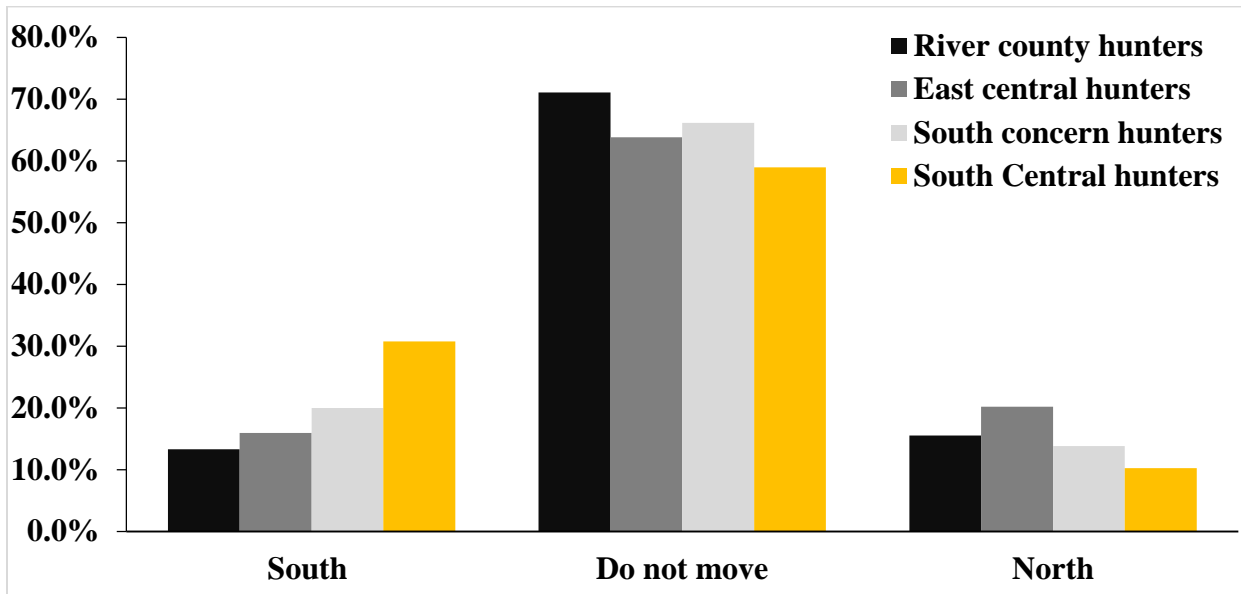


Figure 45. Percent of Central and South Central zone hunters who want the current Central/South Central zone line moved in the indicated direction.

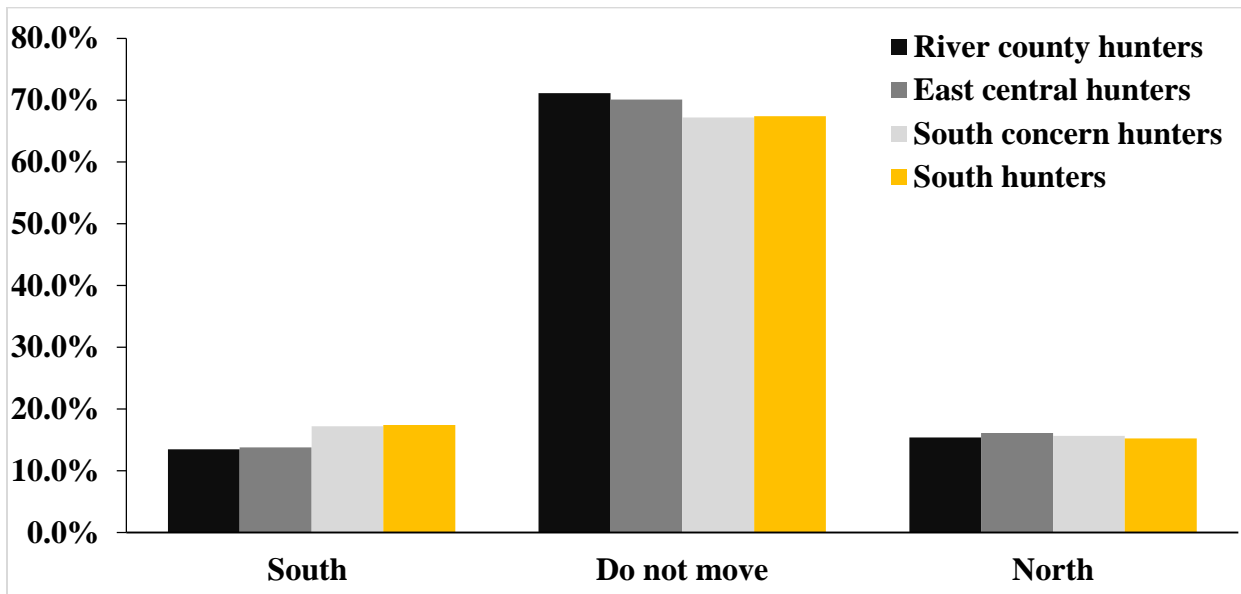


Figure 46. Percent of Central and South zone hunters who want the current Central/South zone line moved in the indicated direction.

Most hunters preferred the Central/South Central zone line not to move (Figure 45). Though a small but significantly larger percentage of South Central hunters preferred moving the Central/South Central zone line south (Figure 45) as compared to Central zone hunters [$\chi^2 (6, N = 490) = 17.300, p = .008, \text{Cramer's } V = .133$].

Differences in preference for the cardinal movement of the Central/South zone line were insignificant [$\chi^2 (6, N = 450) = .944, p = .988$] and most hunters preferred the line not move (Figure 46).

When asked if the county they hunt most often is in the correct zone, most Central zone hunters felt their hunting area was in the correct zone (Figure 47). A one-way ANOVA test indicated there was not a significant difference in the percentage of hunters who felt the county they hunt in was in the correct zone [$F (2, 557) = 2.024, p = 0.113$].

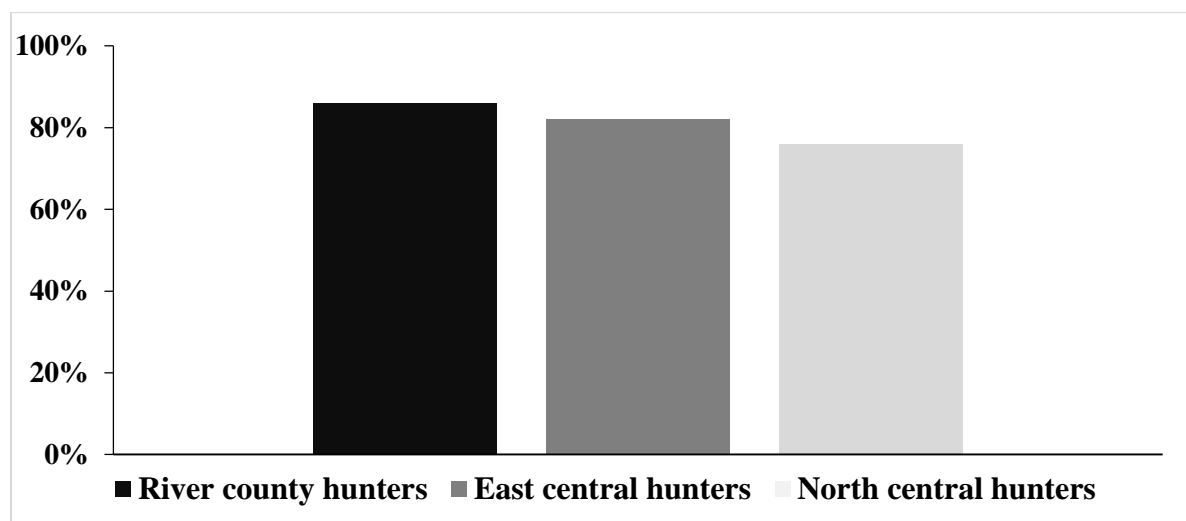


Figure 47. Percent of hunters who feel the county they hunt in most often is in the correct zone.

Among Central zone hunters, those in Central north area were more likely to respond that changing the zone of the area they hunt most often would increase satisfaction aspects of their hunts (Table 28); however, hunters in the River counties were more likely to say changing the zone would have no impact. Overall, less than 19% of hunters felt changing the zone would decrease satisfaction. Hunters were in the greatest agreement regarding “season start date allowed the season to match migration” 53% of hunters felt changing their zone would increase migration match.

Comparison of East Central County trends

To examine trends in East Central zone additional analysis in select counties (Adams, Brown, Calhoun, Champaign, Clark, Coles, Cumberland, Douglas, Edgar, Effingham, Ford, Greene, Iroquois, Jersey, Kankakee, Madison, Moultrie, Piatt, Pike, Shelby, & Vermilion) was conducted. To confirm a representative sample responded to the IWHS, the distributions by county were compared (Table 29). The counties in question comprised 17% of all in state Waterfowl purchasers, and 15% of IWHS respondents. No single county had a high enough response rate to allow generalizations to the specific county. However, a 95% confidence interval of $\pm 5.62\%$ can be assumed for generalizations made by county of residence. This is based on a population of 8,719 for these select counties and a random sample with a response of 294 respondents. Hunters are not asked to provide information for every county they hunt, they are instead asked to provide information based on the zone. Hunters are asked to provide a corresponding county for each zone and it is assumed that hunters provide the county for which they hunted most often. Among the east central counties of concern, Effingham was the only county to have no hunters (Table 30). Of the 294 respondents living in the east central counties of concern, 123 (41.8%) indicated that the area they hunted most often was also one of the east central counties of concern. However, residents of these areas were 68.7% of the hunters of this area. This indicates that even though most residents hunt elsewhere, the majority of those who do hunt the area are residents. For this reason, we examined data based upon county hunted most often rather than county of residence.

Since Illinois adopted 4 zones for waterfowl, almost annually the IWHS has included questions about options regarding the 4 zones. Because the wording of the questions and responses are not always the same, a direct comparison of responses is not possible. In the 2012-13 IWHS, 39.7% hunters in the area of concern indicated that they had a preference for “No change” (Table 31) and 27.4% preferred changing back to 3 zones. In 2013-14 and 2016-17 when asked about zones, one-third (33.5%) of respondents indicated “No preference”, followed by “four duck zones with no split seasons” (Table 32). Though “no preference” was the most selected response in both years, there was an increase in preference for 3 zones with 2 splits in 2016-17 (29.8%) as compared to 2013-14 (17.5%).

In 2014, a follow up question clarified preference in the instance of 3 zone configuration with 2 segments and 3 or 4 zones with a continuous season. When considering 3 zones with a segment, 37.5% of these hunters preferred combining the South Central and South zones (Table 33). When asked about a continuous duck season, 42.6% of hunters preferred “No change” and a 4 zone option (Table 34).

When asked about the trend of season timing there is a clear trend. Fewer hunters feel that the season start date is “Too late” or “Unsure” and most feel that the season is “too early” (Figure 48). Consistently, about 40% of hunters in the area feel that the timing of the duck season is “About right”.

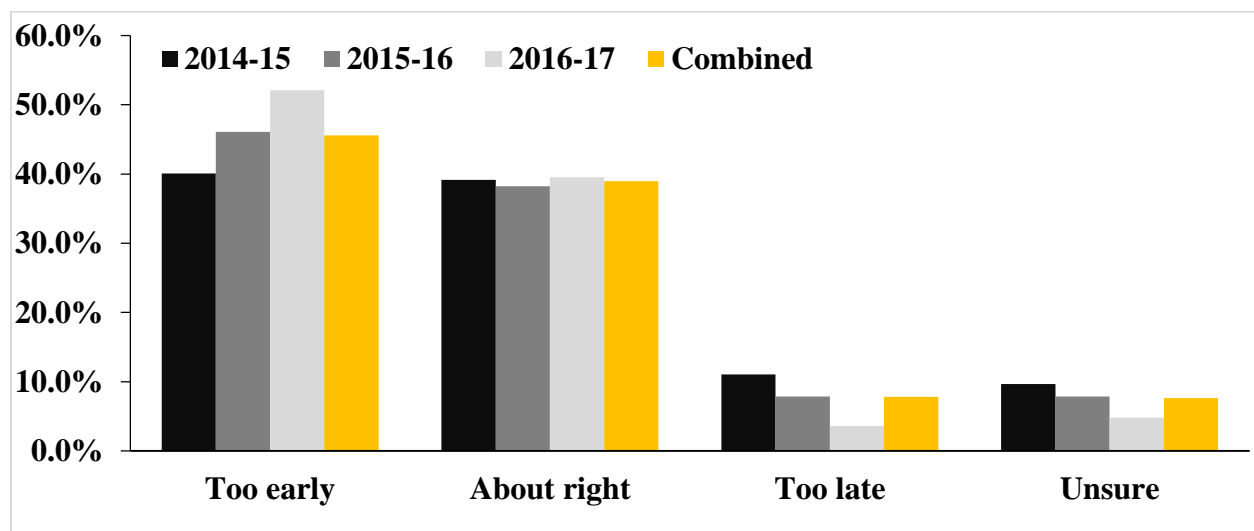


Figure 48. Central zone East hunters’ opinions regarding the start date of duck hunting season 2014-16.

Comparison of satisfaction with some aspects of the duck season are declining. Satisfaction with the number of ducks seen during hunting season has dropped (Figure 49). The majority of hunters for the last 3 years have been unsatisfied with the number of ducks seen. Similarly, satisfaction with midseason matching peak of duck migration increased un-satisfaction (Figure 50). Though satisfaction with the amount of “shooting got in” has decreased, most of these hunters have become unsure rather than un-satisfied (Figure 51). Satisfaction with the number of ducks that migrated through the area has decreased, while dissatisfaction has increased, though the trend is less clear (Figure 52).

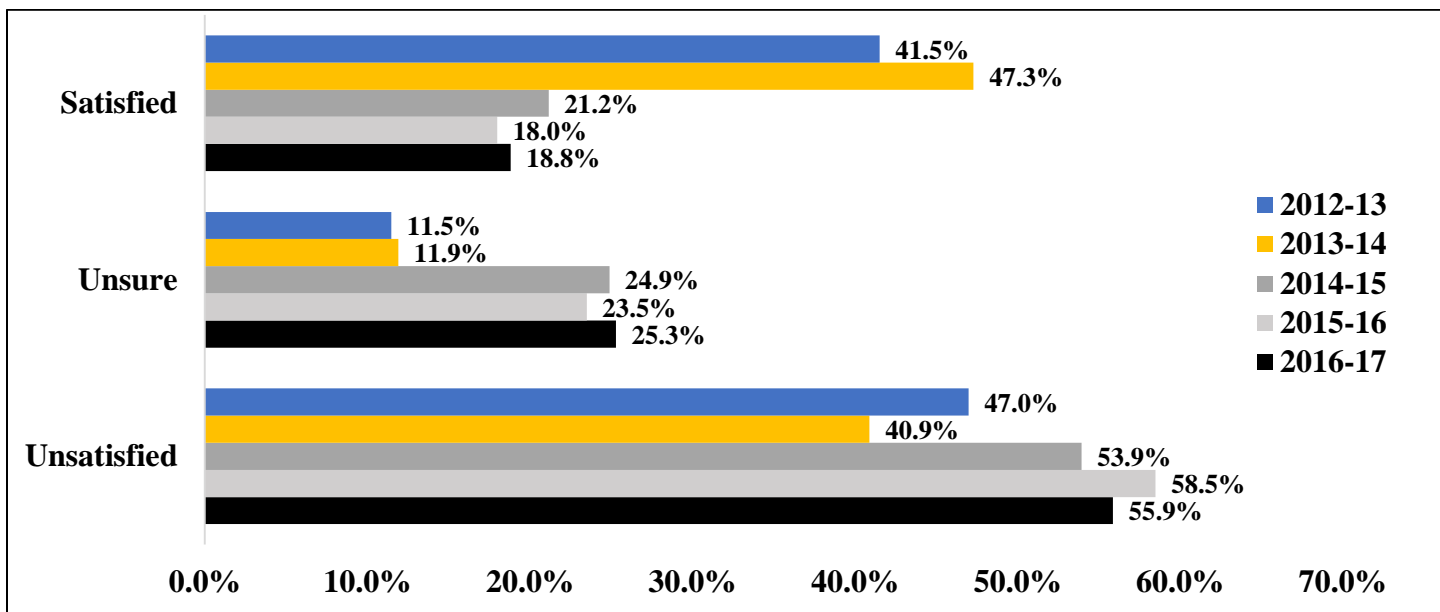


Figure 49. Satisfaction with number of ducks you saw 2012-16.

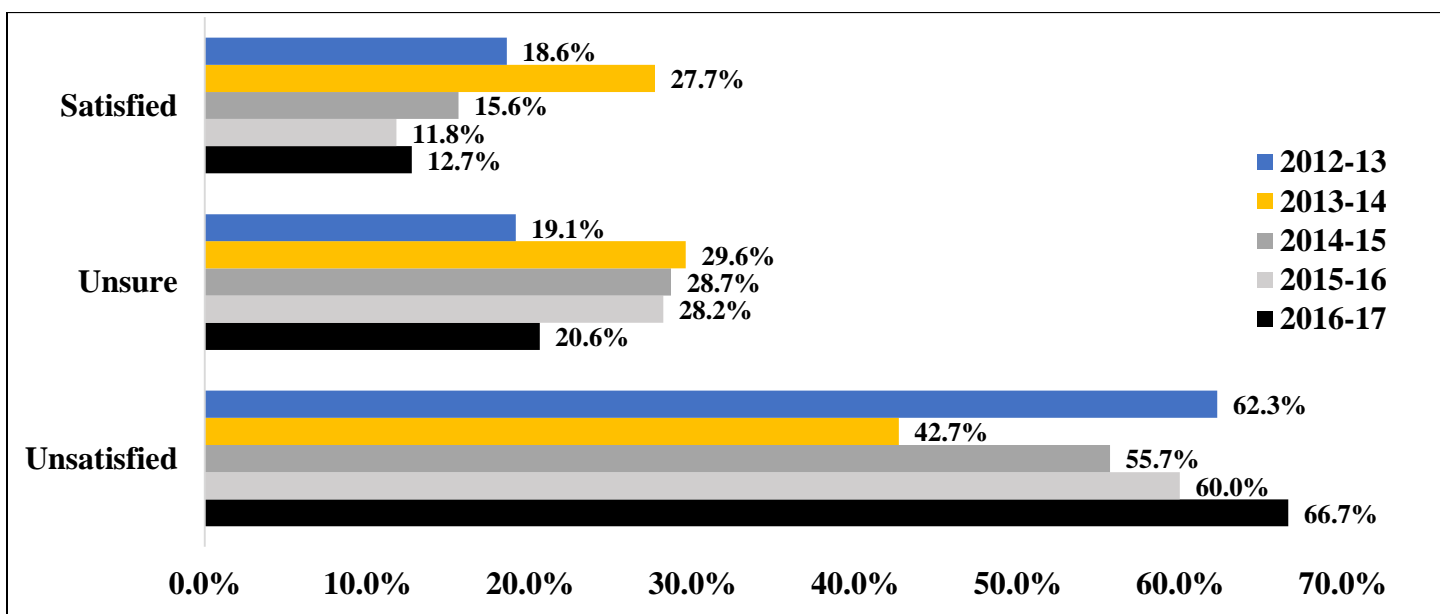


Figure 50. Satisfaction with mid-season matching peak of duck migration 2012-16.

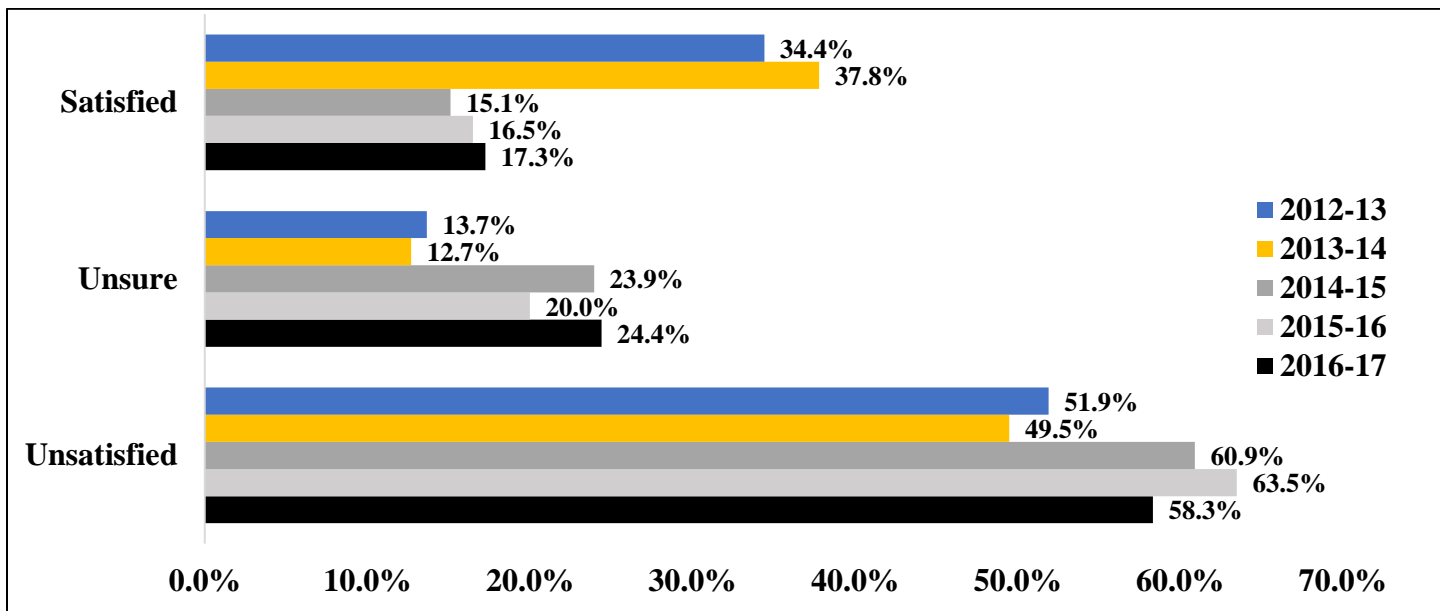


Figure 51. Satisfaction with amount of shooting you got in 2012-16.

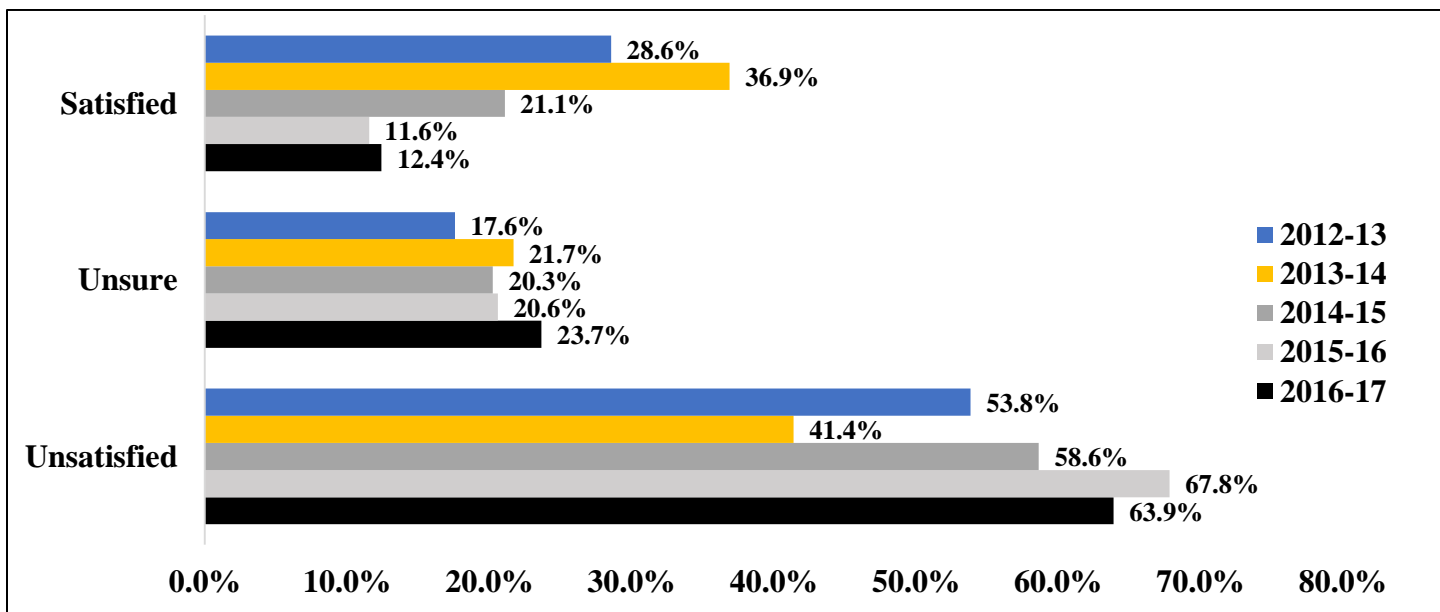


Figure 52. Satisfaction with number of ducks that migrated through areas hunted 2012-16.

Dissatisfaction with the amount of time spent hunting has stayed consistent over the last 5 years (Figure 53). Satisfaction with time spent hunting has decreased highly, while the number of hunters unsure about this aspect has increased. The number of hunters unsatisfied with the number of ducks they harvested has consistently stayed around 60% for the last 5 years (Figure 54). Satisfaction with the weather during duck season has stayed consistent over the last 5 years (Figure 55).

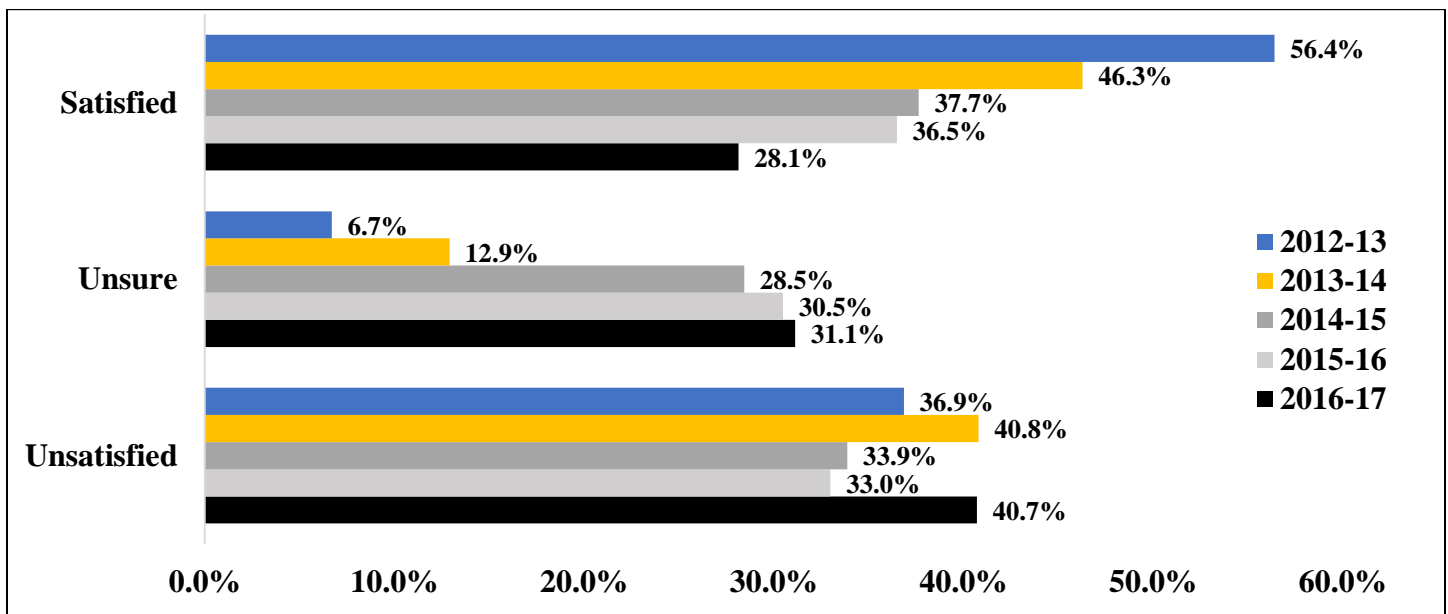


Figure 53. Satisfaction with amount of time you spent duck hunting 2012-16.

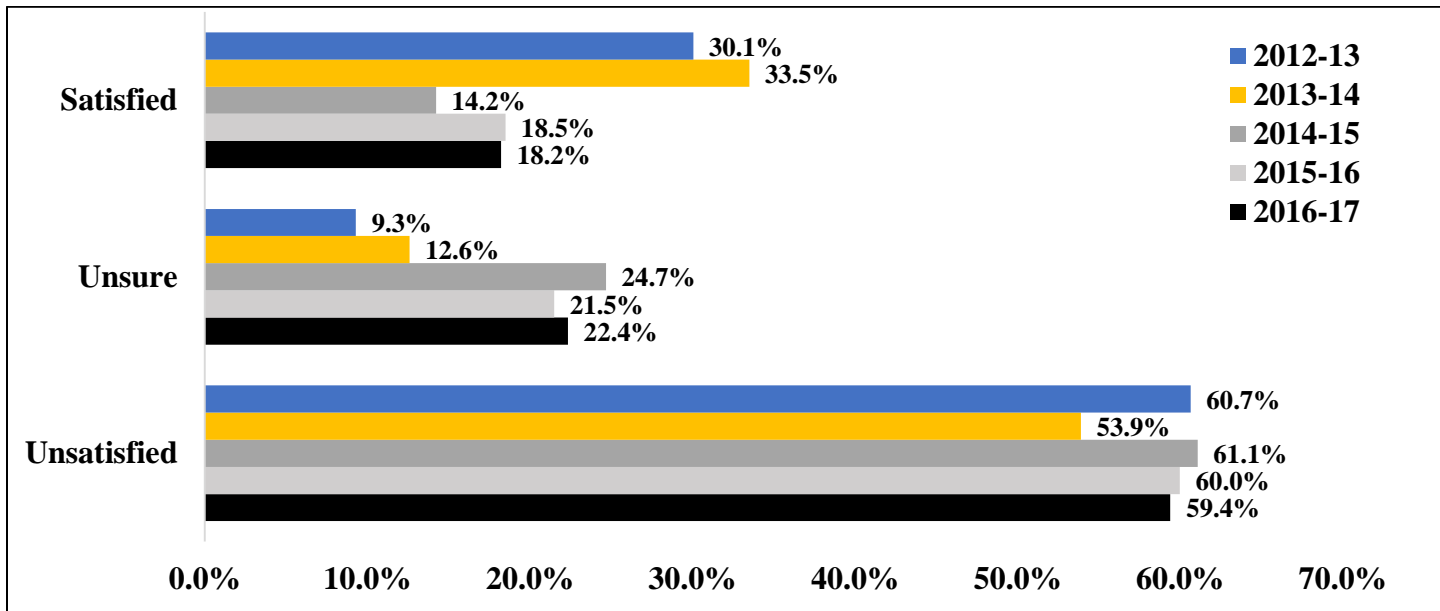


Figure 54. Satisfaction with number of ducks you harvested 2012-16.

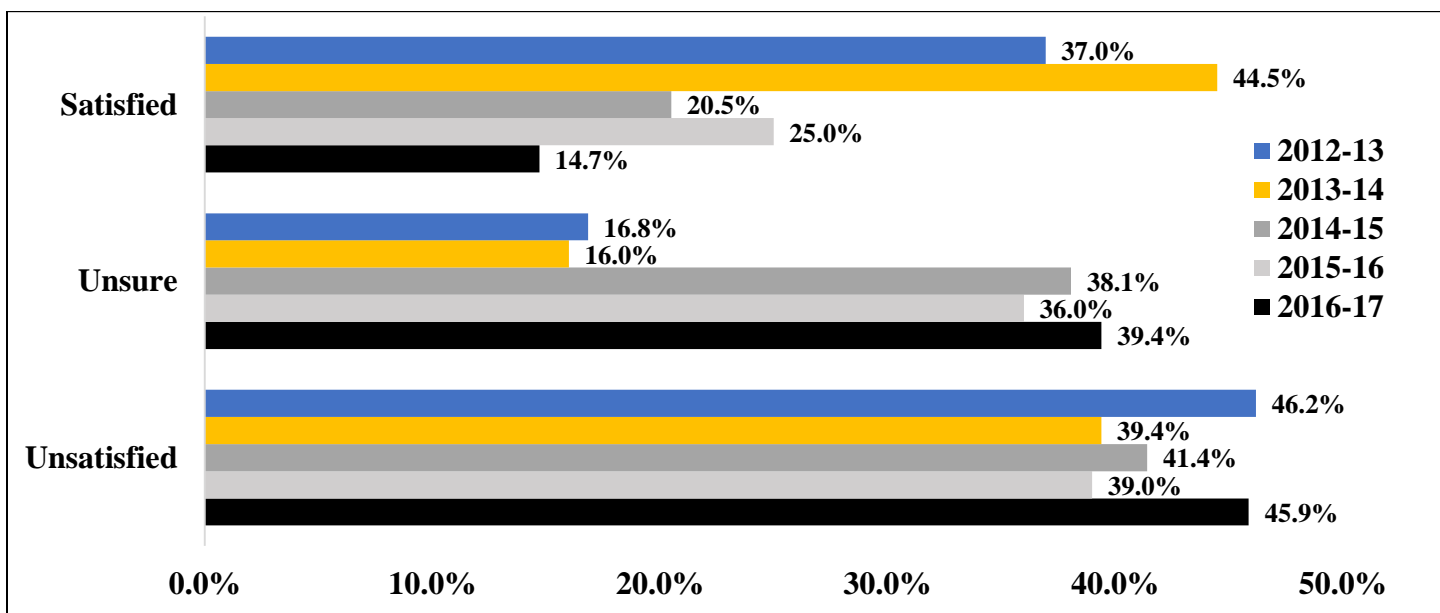


Figure 55. Satisfaction with weather during duck season 2012-16.

Public Land Use and Hunting Preferences

Duck hunters were more likely to use public lands for hunting than goose hunters (Figure 56). Hunters were not dissatisfied with any of the waterfowl harvest reporting methods, and had the greatest level of

satisfaction with check-in stations (Table 35). Of those that hunted public land, 3.9% had ever been denied an access permit for not reporting harvest by a due date. The most commonly preferred species of waterfowl to target while hunting is mallards, followed by any legal duck (Figure 57).

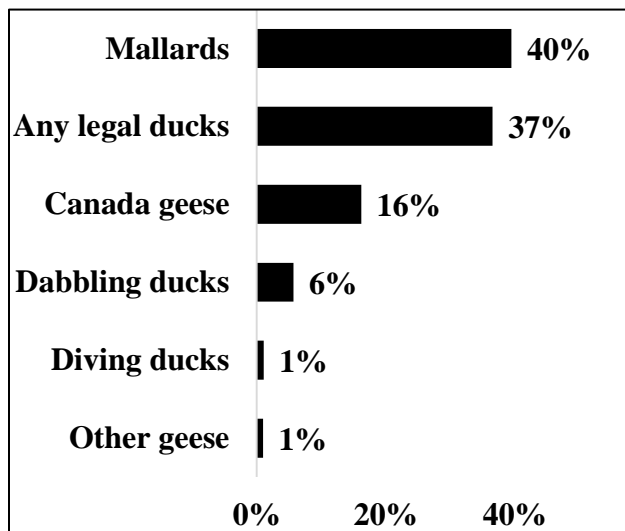


Figure 56. Percentage of waterfowl hunters that used public land for hunting in 2016-17 ($n = 1,082$).

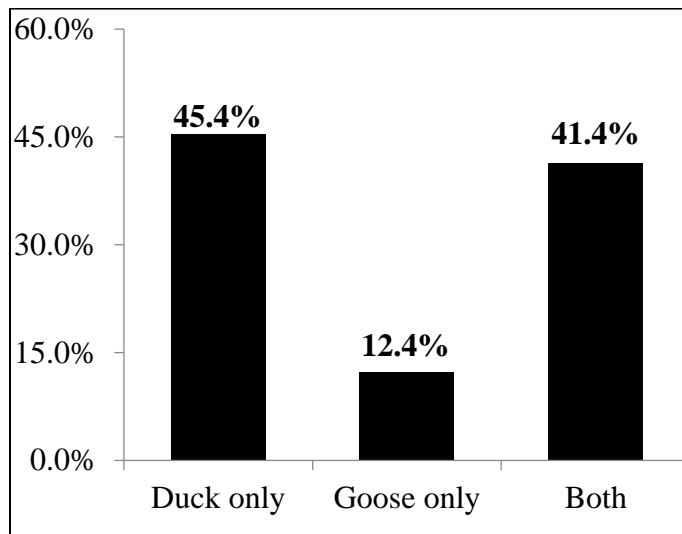


Figure 57. Illinois waterfowl hunters preferred targets while hunting waterfowl ($n = 1,191$).

The habitat that hunters preferred to hunt differed slightly, by zone/area hunted (Figure 58). When not separated into groups, duck hunters prefer hunting over flooded fields and shallow vegetated water, whereas goose hunters primarily prefer hunting over fields (Figure 59). The majority of hunters opportunistically take geese or do not take waterfowl opportunistically. Four percent of hunters indicated that they opportunistically take coots (Figure 60). Among those who do take coots, the most common reasons for doing so is “to eat” or “no other birds decoyed up” (Figure 61). “Seeing ducks/geese” and “enjoying nature/outdoors” were the most important factors influencing a satisfying hunt. Bagging out and harvesting a banded bird were least important (Table 36).

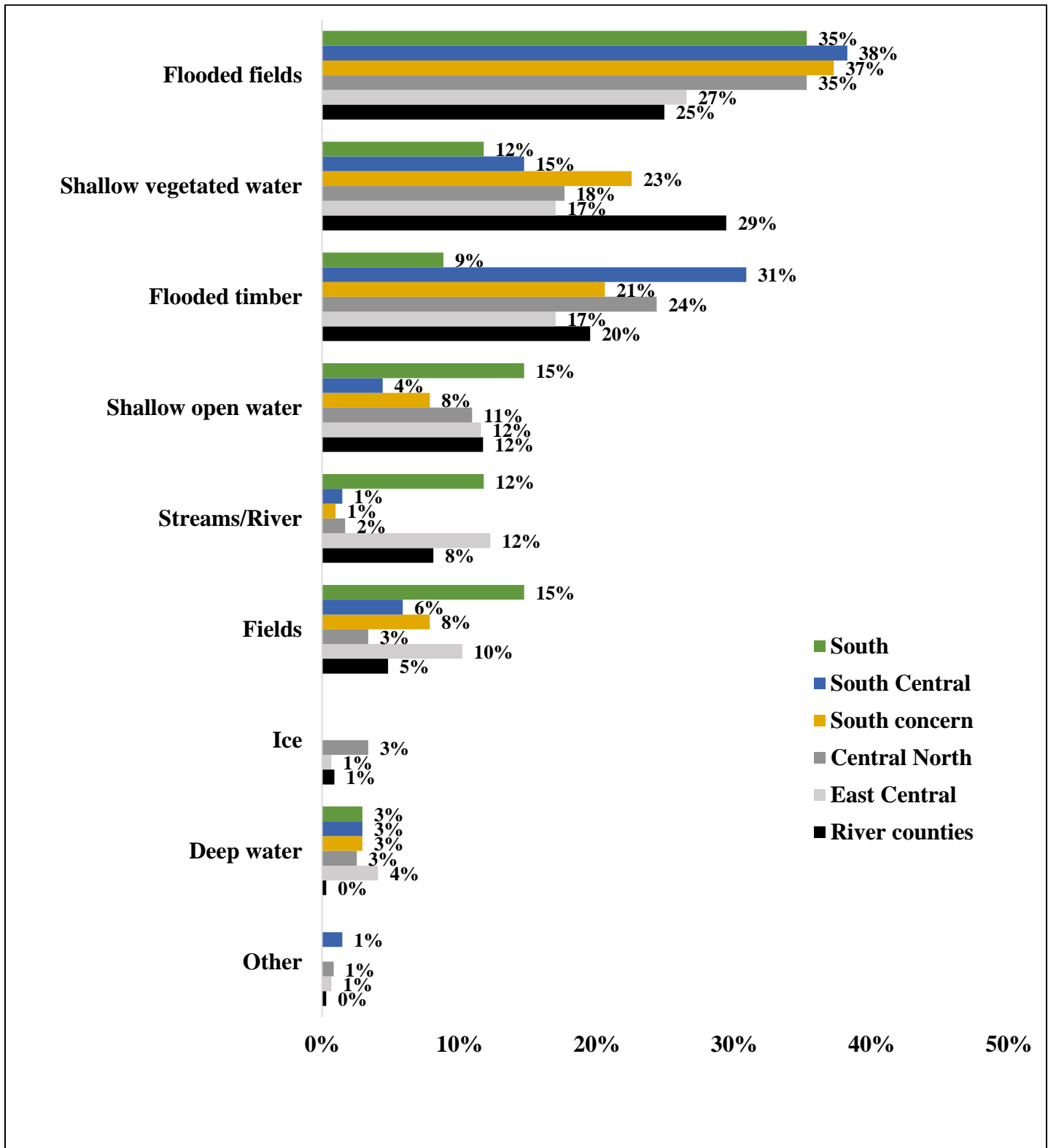


Figure 58. Type of habitat preferred by duck hunters in Illinois during the 2016-17 seasons

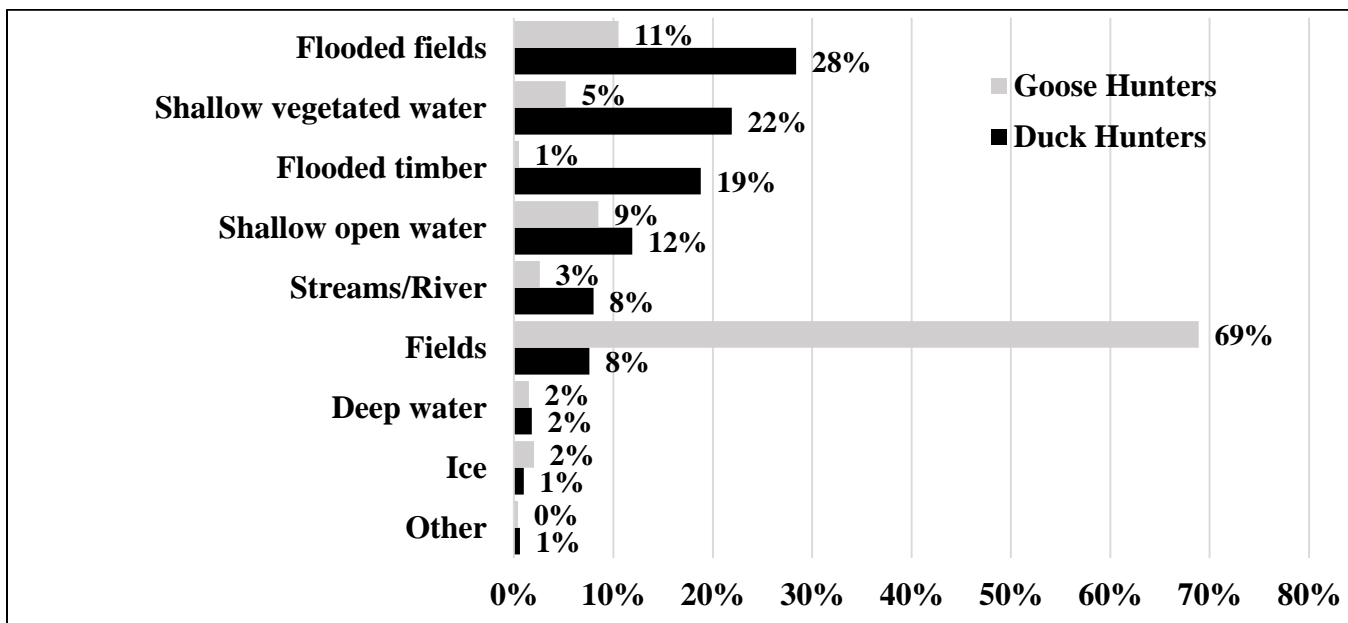


Figure 59. Preferred type of habitat duck and goose hunters hunted in Illinois during the 2016-17 seasons.

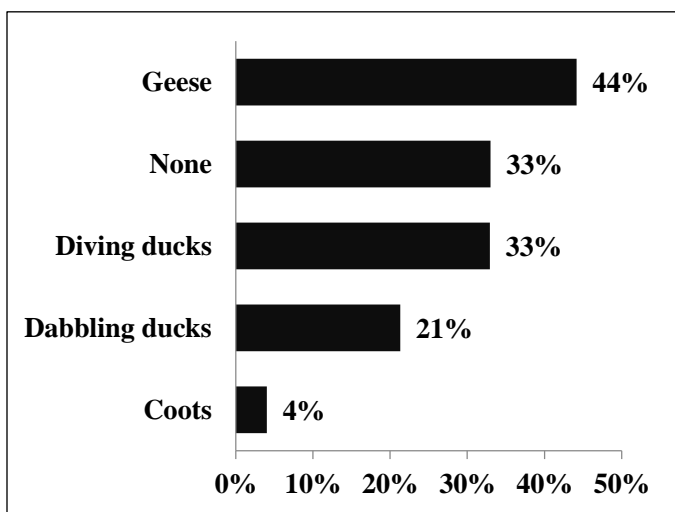


Figure 60. Which do you opportunistically take in Illinois ($n=1,191$).

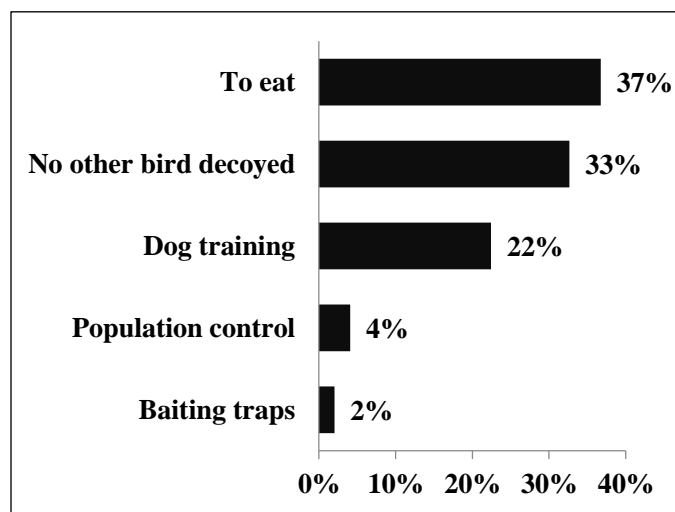


Figure 61. Reasons for taking coots ($n=49$).

Hunter Characteristics

Almost half (44.3%) of Illinois duck hunters reported that they intend to hunt in the Central zone for ducks during the 2017-18 duck season, followed by 26.6% that intend to hunt ducks in the North zone, 17.7% in the South Central, and 11.4% in the South zone. Over half (55%) of Illinois duck hunters indicated that other hunting seasons did not affect their season preferences for duck hunting, but 32% reported that firearm deer

season did affect their duck season preferences (Table 37). Given only one day to hunt, waterfowl hunters in Illinois would choose to hunt ducks, followed by deer and geese (Figure 62). Illinois duck hunters reported traveling an average 46.69 ± 101.91 miles to duck hunt. Goose hunters reported traveling 34.57 ± 79.23 miles.

Respondents who hunted waterfowl during the 2016-17 waterfowl season hunted waterfowl in Illinois for a mean of 23.06 years. These hunters averaged 47 years of age. When asked about following precautions for handling harvested waterfowl, 15.2% of waterfowl hunters did not follow the precautions outlined in the IL Digest of Waterfowl hunting regulations.

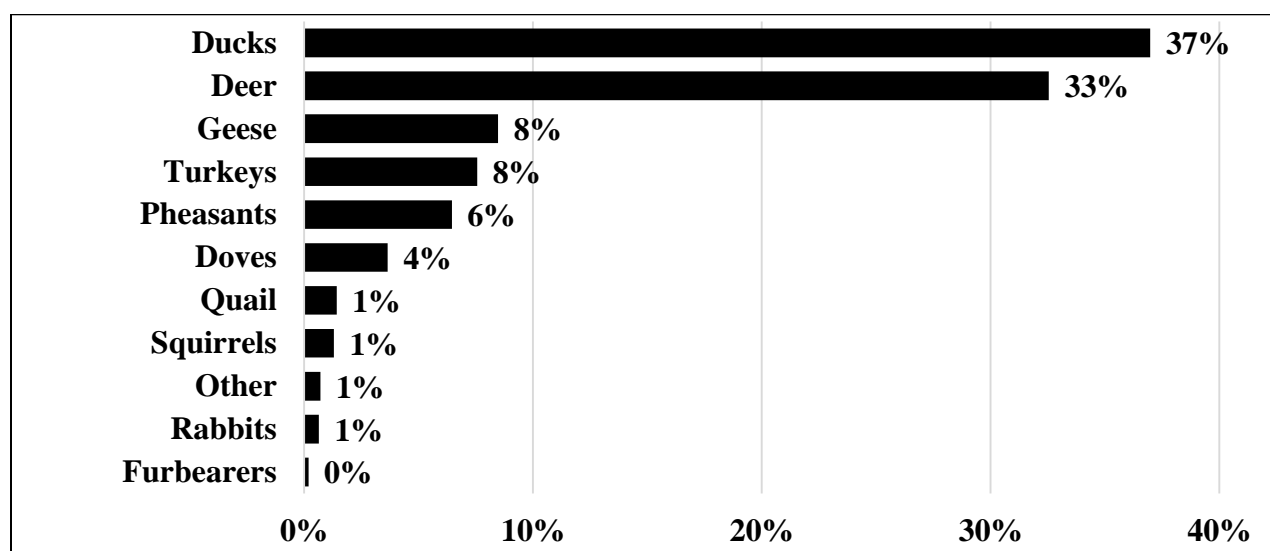


Figure 62. If given only one day to hunt, the species Illinois waterfowl hunters would prefer to hunt (n=1,191).

The counties with most respondents were Madison (5.5%), St. Clair (4.4%), McHenry (3.9%), Cook (3.9%), and Will (3.6%). Females comprised 3.3% of survey respondents and 2.5% of those who hunted during the 2016-17 waterfowl hunting seasons (Figure 63). The majority of respondents (95%) hunted waterfowl in Illinois before this season (Figure 64). Over half (53.5%) of respondents reported they hunt waterfowl every year in Illinois, whereas 5.5% reported that they never hunted waterfowl in Illinois (Figure 65).

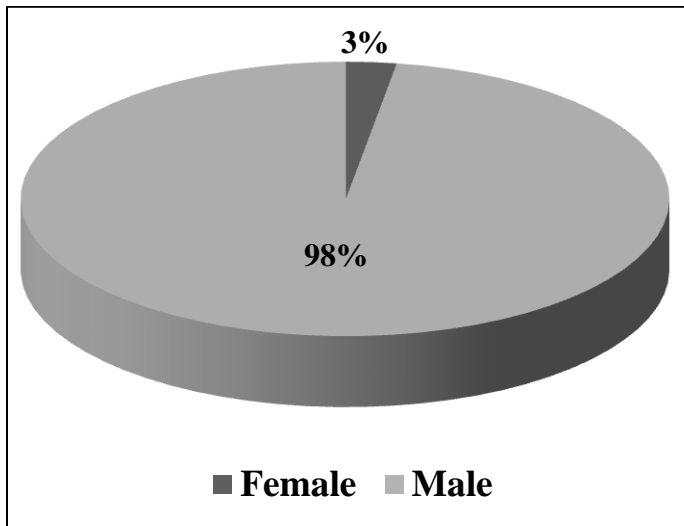


Figure 63. Gender distribution of respondents who hunted* waterfowl during one of the 2016-17 waterfowl seasons ($n=1,191$).

*Cases selected for those who indicated they hunted for at least one day or more during the 2016-17 waterfowl seasons.

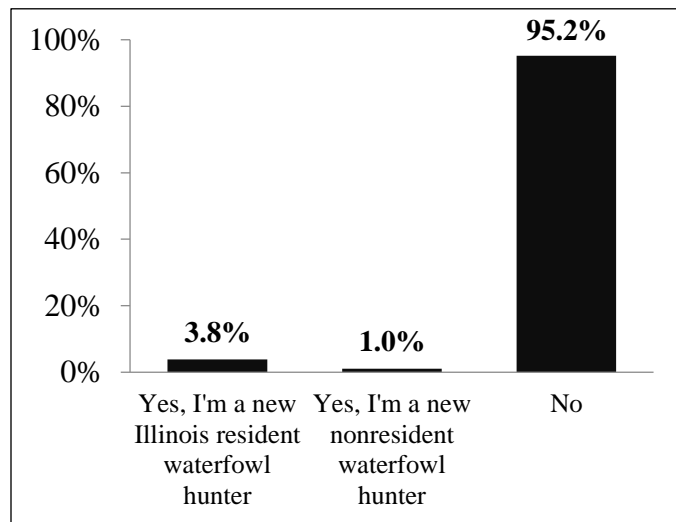


Figure 64. Number of hunters* whose first time hunting waterfowl in Illinois was during one of the 2016-17 waterfowl seasons ($n=1,191$).

*Cases selected for those who indicated they hunted at least one day during the 2016-17 waterfowl seasons.

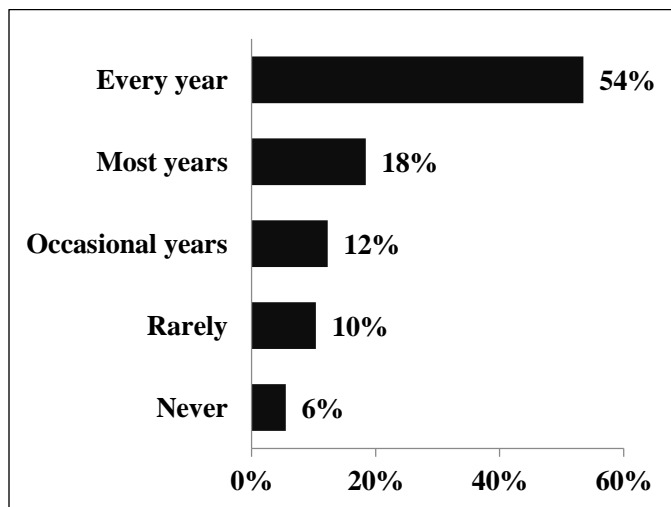


Figure 65. How often respondents hunt waterfowl in Illinois ($n=1,586$).

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Table 1. Summary of Illinois Migratory Waterfowl Stamps purchased, hunter activity, and waterfowl harvest in Illinois from 2005 through 2016 hunting seasons.

Season ^a (Year)	Stamps Purchased	Estimated Hunters	Estimated Days Hunted	Estimated Harvest ^b
2005	55,734	48,772	868,299	526,221
2006	63,965	58,302	1,194,801	700,571
2007	66,765	57,454	1,150,304	678,623
2008	69,590	59,379	1,175,243	660,306
2009	68,549	59,987	1,222,980	613,335
2010	64,828	50,936	985,075	513,882
2011	66,581	52,660	1,147,037	577,654
2012	64,896	50,740	1,155,346	580,557
2013	66,394	49,170	1,052,728	605,720
2014	70,391	50,698	982,193	550,946
2015	58,247	40,104	795,289	488,321
2016	54,920	41,242	870,721	490,463

^a Full listing for harvest 1981-Present can be found in Appendix F.

^b Teal, ducks, coots, and geese combined, and including September Teal and Canada goose seasons and youth hunt.

Table 2. The percentage of waterfowl hunters who hunted exclusively ducks, exclusively geese, or both ducks and geese in Illinois from 2004 through 2016 seasons.

Season ^a (Year)	Hunted Ducks Only	Hunted Geese Only	Hunted Both Ducks and Geese	Duck Hunters	Goose Hunters
2004	32.1%	10.5%	57.4%	89.5%	67.9%
2005	37.2%	11.5%	51.3%	88.5%	62.8%
2006	28.8%	13.5%	57.7%	86.5%	71.2%
2007	27.7%	12.2%	60.1%	87.8%	72.3%
2008	25.9%	10.6%	63.5%	89.4% ^b	74.1% ^b
2009	27.5%	8.4%	64.1%	91.6% ^b	72.5% ^b
2010	25.0%	13.1%	61.9%	86.9% ^b	75.0% ^b
2011	20.7%	18.3%	61.0%	81.7%	79.3%
2012	29.4%	9.8%	60.8%	90.2%	70.6%
2013	30.2%	9.8%	60.0%	90.2%	69.8%
2014	30.8%	10.9%	58.3%	89.1%	69.2%
2015	28.3%	8.6%	63.0%	91.3%	71.6%
2016	29.3%	8.2%	62.5%	91.8%	70.7%

^a 1981-2016 information can be located in Appendix F.

^b 2008-2010 numbers changed to reflect responses in the sample.

Table 3. Summary of Teal harvest and hunter activity during September Teal season (Illinois, 2004-2016).

Season ^a (Year)	Estimated Hunters	Estimated Days Hunted	Estimated Teal Harvest
2004	8,097	23,928	8,463
2005	6,686	17,708	10,953
2006	12,378	43,223	28,016
2007	13,478	48,115	29,800
2008	14,652	52,365	19,981
2009	15,436	55,139	19,222 ± 7,372
2010	13,038	49,038	20,127 ± 9,332
2011	11,221	42,811	21,227 ± 7,993
2012	10,944	46,719	31,942 ± 11,740
2013	10,378	37,431	21,967 ± 7,169
2014	11,282	42,635	29,058 ± 10,909
2015	9,615	37,574	28,031 ± 9,911
2016	8,969	38,610	25,346 ± 9,296

^a 1981-2016 information can be located in Appendix F.

Table 4. Teal harvest and hunter activity by zones during September Teal season (Illinois, 2016).

	<i>n</i>	Estimated Hunters ^a	Estimated Days Hunted	Estimated Teal Harvested
North Zone	62	2,147	7,480	3,990
Central Zone	130	4,502	20,881	13,202
South Central Zone	59	2,043	8,796	7,599
South Zone	14	485	1,454	555
Unknown	0	0	0	0

^a The number of individual teal hunters in the state is less than the sum of duck hunters from the categories above because some hunted in more than one zone.

Table 5. Rates of Teal harvest and hunter activity during September Teal season (Illinois, 2004-2016).

Season ^a (Year)	Season Length/ Bag Limit	Days Hunted Per Hunter	Teal Harvest per Hunter	
			Per Day	Per Season
2004	9/4	2.96	0.35	1.05
2005	9/4	2.65	0.62	1.64
2006	16/4	3.49	0.65	2.26
2007	16/4	3.60	0.62	2.21
2008	16/4	3.57	0.38	1.36
2009	16/4	3.57	0.35	1.25
2010	16/4	3.76	0.41	1.54
2011	16/4	3.82	0.50	1.90
2012	16/4	4.27	0.68	2.92
2013	16/6	3.61	0.59	2.12
2014	16/6	3.78	0.68	2.58
2015	16/6	3.91	0.75	2.92
2016	16/6	4.31	0.66	2.83

^a 1981-2016 information can be located in Appendix F.

Table 6. Waterfowl harvest and hunter activity during Youth Waterfowl Hunting Days, 2004-2016.

Season ^a (Year)	Adult Participation	Youth Participation	Days Hunting	Mean		Ducks/ Youth/Day	Total Coots	Coots/ Youth/ Day	Total Geese	Geese/ Youth/ Day
				Youths/ Hunting Party	Total Ducks					
2004	5,603	7,891	12,997	1.41	7,477	0.58	48	<0.01	561	0.04
2005	4,540	6,489	10,268	1.58	5,644	0.55	583	0.06	965	0.09
2006	5,447	8,024	11,903	1.48	9,863	0.83	133	0.01	732	0.06
2007	6,259	8,981	14,356	1.60	9,141	0.64	850	0.06	1,701	0.12
2008	6,402	9,878	14,799	1.50	10,380	0.70	241	0.02	1,466	0.10
2009	7,073	9,772	15,922	1.63	11,229	0.71	599	0.04	2,396	0.15
2010	5,471	7,452	11,828	1.59	9,156	0.77	419	0.04	1,420	0.12
2011	6,325	8,642	14,059	1.63	9,569	0.68	1,333	0.09	1,318	0.09
2012	7,825	10,001	52,448 ^b	1.27	8,147 ^c	0.41	503 ^c	0.03	1,064 ^c	0.05
2013	8,438	8,639	19,136	1.02	12,715	1.33	359	0.04	2,065	0.23
2014	6,405	8,572	13,798	1.33	9,004	1.30	192	0.03	929	0.14
2015	4,718	6,291	9,873	1.33	8,171	1.65	117	0.02	571	0.12
2016	4,398	5,921	8,553	1.34	6,731	1.57	139	0.03	927	0.23

^a 1996-2016 information can be located in Appendix F.

^b Results include youth hunts during the regular season and the 2 day Youth Waterfowl Hunting Days.

^c Results are a 2 day estimate based on the mean number harvested by youth from the entire season

Table 7. Summary of duck and coot harvest and hunter activity during the regular duck season (Illinois 2004-2016).

Season ^a (Year)	Hunters	Days Afield	Number of Ducks				Coots
			Mallards	Wood Ducks	Other Ducks	Total	
2004	49,046	652,960	207,982	44,725	116,951 ^b	369,658	1,607
2005	43,185	539,672	240,897	37,942	133,509 ^b	412,348	2,186
2006	50,437	658,881	308,000	38,366	161,098 ^b	507,464	3,065
2007	49,114	600,614	265,369	34,628	164,369 ^b	464,366	3,771
2008	50,683	600,574	247,895	43,051	156,849	447,795	2,266
2009	49,648	626,832	228,211	41,549	129,795	399,555 ± 69,698	3,904 ± 3,342
2010	43,450	499,758	193,758	39,611	121,375	354,859 ± 60,571	1,770 ± 2,435
2011	46,619	632,712	222,405	54,294	150,786	427,484 ± 66,551	4,327 ± 2,663
2012	43,444	630,233	244,988	47,623	185,776	478,387 ± 50,294	4,133 ± 3,536
2013	43,653	563,961	225,873	49,001	155,306	430,179 ± 29,431	2,143 ± 4,031
2014	44,019	525,114	197,997	48,216	138,615 ^b	384,828 ± 39,741	4,681 ± 3,311
2015	36,499	496,656	166,506	43,655	119,619 ^b	329,780 ± 34,835	3,185 ± 1,960
2016	34,386	459,029	154,698	47,986	130,722 ^b	333,406 ± 37,408	4,424 ± 1,338

^a 1981-2016 information can be located in Appendix F.

^b Canvasback in 2003, 2,100 in 2004, 3,918 in 2005, 5,927 in 2006, and 5,925 in 2007, 6,974 in 2016 .

Table 8. Duck species hunters harvested between September 2016 and January 2017 ($n=993$).

Species	Scientific name	Number of hunters	Percent of hunters
Mallard	<i>Anas platyrhynchos</i>	818	70.9%
Wood Duck	<i>Aix sponsa</i>	516	44.7%
Gadwall	<i>Anas strepera</i>	478	41.4%
Green-Winged Teal	<i>Anas crecca</i>	422	36.6%
Shoveler	<i>Anas clypeata</i>	295	25.6%
Blue-winged teal	<i>Anas discors</i>	276	23.9%
Pintail	<i>Anas acuta</i>	249	21.6%
Wigeon	<i>Anas americana</i>	202	17.5%
Scaup	<i>Aythya affinis</i>	138	12.0%
Canvasback	<i>Aythya valisineria</i>	118	10.2%
Redhead	<i>Aythya americana</i>	92	8.0%
Ringneck	<i>Aythya collaris</i>	47	4.1%
Coot	<i>Fulica americana</i>	40	3.5%
Black duck	<i>Anas ribripes</i>	25	2.2%
Golden Eye	<i>Bucephala clangula</i>	23	2.0%
Bufflehead	<i>Bucephala albeola</i>	22	1.9%
Hooded Merganser	<i>Lophodytes cucullatus</i>	10	0.9%
Ruddy	<i>Oxyura jamaicensis</i>	4	0.3%
Scoter	<i>Melanitta perspicillata</i>	2	0.2%

*Write-in responses provided by hunters.

** Cases selected for those who indicated they hunted for at least one day during the 2016-17 duck hunting seasons.

Table 9. Duck harvest and hunter activity by waterfowl zones and selected areas during the regular duck season (Illinois 2016-2017).

Zone	n	Hunters ^a	Estimated Days Hunted	Estimated Ducks Harvested	Days Hunted/ Hunter	Ducks/ Hunter/ Day	Ducks/ Hunter/ Season
North	281	9,730	113,580	60,824	11.67	0.54	6.25
Central	481	16,656	208,218	151,020	12.50	0.73	9.07
South Central	199	6,891	92,803	79,856	13.47	0.86	11.59
South	132	4,571	44,428	41,706	9.72	0.94	9.12
Unknown	0	0	0	0	0	0	0
Statewide	993	34,386	459,029	333,406	13.35	0.73	9.70

^a The number of individual duck hunters in the state is less than the sum of duck hunters from the categories above because some hunted in more than one zone.

Table 10. Rates of duck harvest and hunter activity during the regular duck season (Illinois 2004-2016).

Season ^a (Year)	Season Length/ Bag Limit	Days Afield/ Hunter	Duck Harvest/Hunter ^b	
			Per Day	Per Season
2004	60/6(4,2)	13.31	0.57	7.54
2005	60/6(4,2)	12.50	0.76	9.55
2006	60/6(4,2)	13.06	0.77	10.06
2007	60/6(4,2)	12.23	0.77	9.45
2008	60/6(4,2)	11.85	0.75	8.84
2009	60/6(4,2)	12.63	0.64	8.05
2010	60/6(4,2)	11.50	0.71	8.17
2011	60/6(4,2)	13.57	0.68	9.17
2012	60/6(4,2)	14.51	0.76	11.01
2013	60/6(4,2)	12.92	0.76	9.85
2014	60/6(4,2)	11.93	0.73	8.74
2015	60/6(4,2)	13.61	0.66	9.01
2016	60/6(4,2)	13.35	0.73	9.70

^a 1981-2016 information can be located in Appendix F.

^b Excludes ducks harvested coincidentally while goose hunting.

Table 11. Distribution of the number of days afield and number of ducks harvested in 2016-17.

	Days Hunting Ducks (%)	Number of Ducks Harvested (%)
0	-----	11.2
1-5	38.0	26.7
6-10	19.7	17.3
11-15	11.2	9.1
16-20	10.6	8.0
21-25	5.1	3.7
26-30	5.0	3.7
>30	10.4	20.3

*Number of ducks harvested was calculated by taking responses and applying the correction factor (Anderson 1985).

Table 12. Canada goose harvest and hunter activity during the early September Canada goose season (Illinois 2005-2016).

	Year ^a	Statewide ^b	Waterfowl Zone				
			North	Central	South Central	South	Unknown
Hunters	2005	9,448	3,949	5,034		1,085	0
	2006	12,609	4,848	6,607		1,154	0
	2007	12,788	4,723	6,413		1,652	0
	2008	13,157	4,934	6,690		1,533	0
	2009	15,102	5,232	8,089		1,781	0
	2010	11,015	3,918	5,813		1,285	0
	2011	14,214	4,625	7,889		1,700	0
	2012	11,192	4,601	5,928	1,161	249	0
	2013	10,865	3,646	6,076	681	462	0
	2014	12,147	4,153	6,679	934	554	0
	2015	10,659	3,226	6,104	1,075	443	0
	2016	9,973	3,324	5,125	1,316	381	0
Days Afield	2005	29,143	12,184	14,352		2,607	0
	2006	42,444	16,735	22,621		3,088	0
	2007	41,549	14,169	22,080		5,300	0
	2008	45,637	17,305	23,174		5,158	0
	2009	51,318	19,591	26,048		5,678	0
	2010	39,019	15,929	19,236		3,854	0
	2011	49,306	16,832	27,441		5,033	0
	2012	39,589	17,079	18,613	3,524	373	0
	2013	40,955	12,323	24,816	2,042	1,774	0
	2014	44,919	16,300	23,844	3,288	1,488	0
	2015	38,744	13,505	21,191	2,404	1,645	0
	2016	41,935	14,925	20,950	4,883	1,177	0
Canada Geese	2005	9,896	4,862	4,047		987	0
	2006	14,578	6,771	6,717		1,090	0
	2007	16,207	6,057	8,645		1,505	0
	2008	17,419	7,343	8,951		1,125	0
	2009	16,212	6,101	8,336		1,774	0
	2010	17,115	7,967	7,859		1,289	0
	2011	18,790	6,339	10,874		1,577	0
	2012	18,028	8,557	7,664	1,599	228	0
	2013	15,644	5,165	9,271	523	685	0
	2014	19,089	7,527	9,015	1,770	777	0
	2015	15,693	4,233	8,587	2,147	726	0
	2016	17,711	7,895	7,780	1,539	497	0

^a 1981-2016 information can be located in Appendix F.

^b Less than the sum of hunters in individual zones because some hunters hunted more than 1 zone.

Table 13. Summary of goose harvest and hunter activity during the regular goose season (Illinois 2005 through 2016).

Season ^a (Year)	Hunters	Days Afield	Number of Geese		
			Canada Geese	Other Geese	Total
2005	30,614	271,708	74,293 (1,653)	9,353 (62)	83,646 (1,715)
2006	41,521	438,350	122,294 (1,338)	14,426 (869)	136,720 (2,207)
2007	43,046	445,670	141,205 (404)	11,582 (55)	152,787 (459)
2008	44,404	461,868	142,806 (590)	17,956 (0)	160,762 (590)
2009	44,601	473,769	142,836 (585)	17,382 (355)	160,218 (940) ± 36,569
2010	36,803	385,432	99,422 (534)	9,594 (46)	109,016 (580) ± 22,523
2011	36,996	411,380	75,061 (618)	19,862 (33)	94,923 (651) ± 22,387
2012	34,034	386,356	72,682 (0)	19,597 (0)	92,280 (0) ± 19,570
2013	33,809	391,246	104,887 (0)	15,859 (0)	120,746 (0) ± 12,775
2014	34,226	369,179	87,672 (50)	20,313 (0)	107,985 (50) ± 15,517
2015	31,280	330,482	75,198 (0)	27,576 (0)	102,774 (0) ± 17,608
2016	26,490	312,725	77,216 (0)	24,563 (0)	101,779 (0) ± 18,215

Numbers in parentheses represent the number of geese harvested while duck hunting.

^a 1981-2016 information can be located in Appendix F.

Table 14. Distribution of the number of days afield and number of geese harvested.

	Days Hunting Geese (%)	Number of Geese Harvested ^a (%)
0	----	20.7
1-5	42.5	42.0
6-10	20.3	14.5
11-15	9.9	8.0
16-20	9.5	4.3
21-25	5.0	2.5
26-30	4.7	1.5
>30	8.1	6.5

^aTotals may not equal 100 due to rounding.

Table 15. Goose harvest and hunter activity by zones, regular season (Illinois 2016-17).

Zone	Hunters	Days Afield	Estimated Goose Harvest				Total Days Hunted/ Hunter	Total Geese/ Hunter/ Day	Total Geese/ Hunter/ Season
			Canada Geese	White- Fronted Geese	Snow/ Blue Geese ^b	Total Geese			
North	8,276	99,348	29,347	99	331	29,777	12.00	0.30	3.55
Central	13,678	152,779	38,699	4,088	7,283	50,070	11.17	0.25	2.83
South Central	3,671	37,779	5,413	2,897	6,687	14,996	10.29	0.14	1.47
South	2,528	22,820	3,757	1,755	1,423	6,935	9.03	0.16	1.49
Unknown	0	0	0	0	0	0	0	0	0
Statewide	26,490	312,725	77,216	8,839	15,725	101,779	11.81	0.25	2.91

^a Less than the sum of hunters in individual zones because some hunters hunted more than 1 zone.

^b Harvest estimates include Ross' geese.

Table 16. Canada goose harvest by zone during the regular goose season (Illinois 2014-15 through 2016-17).

Zone	2014-2015	2015-2016	2016-2017	3-Year Mean	S.D.
North	29,130	24,144	29,347	27,540	2,943
Central	46,549	41,106	38,699	42,118	4,022
South Central	6,038	6,864	5,413	6,105	728
South	5,955	3,084	3,757	4,265	1,501
Unknown	0	-	-	-	-
Statewide	87,672	75,198	77,216	80,028	6,695

Table 17. Summary of the number of ducks and geese crippled (Illinois 2004 - 2016 regular seasons).

Season ^a (Year)	Estimated Ducks		Estimated Geese	
	Total	Per 100 Bagged	Total	Per 100 Bagged
2004	63,765	17.2	9,433	10.5
2005	68,121	16.5	7,666	9.2
2006	83,648	16.5	14,110	10.3
2007	77,914	16.8	16,627	10.9
2008	74,044	16.5	14,166	8.8
2009	67,718	16.9	12,245	7.6
2010	57,388	16.2	9,217	8.5
2011	64,268	15.0	6,937	7.3
2012	71,054*	14.9*	10,452*	11.3*
2013	59,064	13.7	8,847	7.3
2014	51,909	13.5	7,856	7.3
2015	47,442	14.4	7,622	7.4
2016	43,666	13.1	6,149	5.6

^a 1981-2016 information can be located in Appendix F.

*Amended from 2012-13 report.

Table 18. Illinois duck hunters' levels of satisfaction with various aspects of the 2016-17 duck seasons.

	Zone	Very Dissatisfied (%)	Dissatisfied (%)	Unsure (%)	Satisfied (%)	Very Satisfied (%)	\bar{x} (S.D.) ^a
Number of ducks you saw	North n = 259	20.8%	28.2%	27.0%	21.2%	2.7%	2.57(1.12)
	Central n = 428	21.3%	32.2%	25.0%	19.4%	2.1%	2.49(1.09)
	South Central n = 177	21.5%	36.2%	22.0%	16.9%	3.4%	2.45(1.11)
	South n = 101	17.8%	36.6%	15.8%	22.8%	6.9%	2.64(1.21)
Mid-season matched peak of migration	North n = 256	28.1%	34.8%	25.4%	11.7%	-	2.21(0.98)
	Central n = 409	22.7%	38.4%	25.2%	11.7%	2.0%	2.32(1.01)
	South Central n = 173	19.7%	35.8%	31.8%	11.0%	1.7%	2.39(0.98)
	South n = 97	16.5%	28.9%	26.8%	23.7%	4.1%	2.70(1.13)
Amount of shooting you got in	North n = 250	22.0%	34.8%	22.4%	18.0%	2.8%	2.45(1.10)
	Central n = 411	20.7%	34.8%	27.7%	15.1%	1.7%	2.42(1.03)
	South Central n = 172	16.9%	35.5%	27.9%	15.7%	4.1%	2.55(1.07)
	South n = 99	20.2%	31.3%	20.2%	23.2%	5.1%	2.62(1.19)
Number of ducks that migrated through areas you hunted	North n = 254	21.3%	39.8%	24.0%	12.6%	2.4%	2.35(1.03)
	Central n = 422	19.2%	39.3%	24.6%	14.7%	2.1%	2.41(1.02)
	South Central n = 176	19.9%	39.2%	23.9%	14.8%	2.3%	2.40(1.04)
	South n = 99	16.2%	40.4%	19.2%	19.2%	5.1%	2.57(1.13)
Amount of time you spent duck hunting	North n = 257	12.8%	22.6%	32.3%	28.4%	3.9%	2.88(1.08)
	Central n = 420	10.2%	27.1%	34.3%	24.3%	4.0%	2.85(1.03)
	South Central n = 174	9.2%	20.7%	26.4%	33.3%	10.3%	3.15(1.14)
	South n = 100	8.0%	22.0%	31.0%	32.0%	7.0%	3.08(1.07)
Number of ducks you harvested	North n = 256	26.2%	30.5%	26.2%	15.6%	1.6%	2.36(1.08)
	Central n = 424	21.2%	35.1%	25.9%	15.8%	1.9%	2.42(1.05)
	South Central n = 176	22.2%	30.1%	25.6%	18.2%	4.0%	2.52(1.14)
	South n = 101	18.8%	35.6%	24.8%	13.9%	6.9%	2.54(1.15)
Weather during duck season	North n = 253	15.8%	23.7%	35.2%	22.5%	2.8%	2.73(1.07)
	Central n = 420	15.2%	30.0%	36.7%	17.1%	1.0%	2.59(0.97)
	South Central n = 173	9.8%	30.6%	38.2%	18.5%	2.9%	2.74(0.97)
	South n = 98	14.3%	26.5%	32.7%	21.4%	5.1%	2.77(1.10)

^a 1= Very Dissatisfied, 5= Very Satisfied

*Cases selected for those who hunted ≥ 1 day for ducks during the 2016-17 regular duck season.

Table 19. Illinois goose hunters' levels of satisfaction with various aspects of the 2016-17 goose seasons.

		Very Dissatisfied (%)	Dissatisfied (%)	Unsure (%)	Satisfied (%)	Very Satisfied (%)	\bar{x} (S.D.) ^a
Number of geese you saw	North n = 222	5.9%	13.1%	25.7%	45.0%	10.4%	3.41(1.03)
	Central n = 367	10.6%	24.8%	27.0%	33.0%	4.6%	2.96(1.09)
	South Central n = 94	39.4%	24.5%	25.5%	9.6%	1.1%	2.09(1.06)
	South n = 62	32.3%	38.7%	6.5%	19.4%	3.2%	2.23(1.19)
Mid-season matched peak of migration	North n = 214	7.5%	22.4%	34.6%	30.8%	4.7%	3.03(1.01)
	Central n = 360	12.2%	31.1%	31.4%	22.8%	2.5%	2.72(1.03)
	South Central n = 94	35.1%	30.9%	28.7%	4.3%	1.1%	2.05(0.95)
	South n = 62	25.8%	45.2%	14.5%	12.9%	1.6%	2.19(1.02)
Amount of shooting you got in	North n = 217	13.4%	23.5%	28.6%	29.0%	5.5%	2.90(1.13)
	Central n = 366	17.5%	29.0%	29.0%	22.7%	1.9%	2.63(1.07)
	South Central n = 94	33.0%	31.9%	23.4%	10.6%	1.1%	2.15(1.04)
	South n = 61	34.4%	31.1%	19.7%	13.1%	1.6%	2.16(1.10)
Number of geese that migrated through areas you hunted	North n = 217	12.0%	18.0%	29.0%	31.8%	9.2%	3.08(1.16)
	Central n = 365	13.4%	27.7%	29.0%	25.5%	4.4%	2.80(1.10)
	South Central n = 94	37.2%	29.8%	24.5%	6.4%	2.1%	2.06(1.03)
	South n = 61	37.7%	32.8%	9.8%	16.4%	3.3%	2.15(1.19)
Amount of time you spent goose hunting	North n = 216	13.0%	14.8%	31.0%	35.2%	6.0%	3.06(1.12)
	Central n = 364	13.2%	22.0%	31.3%	30.2%	3.3%	2.88(1.08)
	South Central n = 94	10.6%	23.4%	34.0%	27.7%	4.3%	2.91(1.05)
	South n = 62	17.7%	16.1%	38.7%	19.4%	8.1%	2.84(1.18)
Number of geese you harvested	North n = 217	17.1%	25.8%	26.7%	25.8%	4.6%	2.75(1.15)
	Central n = 361	21.9%	24.7%	29.6%	22.2%	1.7%	2.57(1.11)
	South Central n = 94	33.0%	35.1%	24.5%	6.4%	1.1%	2.07(0.96)
	South n = 60	41.7%	25.0%	16.7%	13.3%	3.3%	2.12(1.19)
Weather during goose season	North n = 218	9.6%	20.6%	37.2%	28.9%	3.7%	2.96(1.02)
	Central n = 361	12.7%	24.9%	38.8%	21.9%	1.7%	2.75(0.99)
	South Central n = 94	23.4%	24.5%	35.1%	14.9%	2.1%	2.48(1.07)
	South n = 62	21.0%	21.0%	45.2%	9.7%	3.2%	2.53(1.04)

^a 1= Very Dissatisfied, 5= Very Satisfied

*Cases selected for those who hunted ≥ 1 day for geese during the 2016-17 regular goose season.

Table 20. Hunter* opinions of the timing of 2016-17 waterfowl seasons**.

Season	<i>n</i>	Too Early (-)	About Right (%)	Too Late (%)	Not Sure (%)
Teal	245	26.5	62.9	3.7	5.7
North duck	255	46.3	43.5	3.5	6.3
Central duck	416	54.3	37.5	3.8	4.3
South Central duck	177	53.1	32.8	9.6	4.5
South duck	99	40.4	45.5	8.1	6.1
North goose	216	28.2	60.2	4.2	6.5
Central goose	352	32.4	58.5	2.6	6.3
South Central goose	93	36.6	58.1	2.2	3.2
South goose	58	44.8	44.8	3.4	6.9

*Cases selected for those that indicated they hunted at least 1 day during the corresponding zone/season in 2016-17.

**Zone determined by zone hunted in most often for species in 2016-17 season.

Table 21. Duck hunter zoning option preferences for 2021 through 2025.

	North Zone <i>n</i> = 260	Central Zone <i>n</i> = 429	South Central <i>n</i> = 177	South Zone <i>n</i> = 100	Total <i>n</i> = 967
Three duck zones with no split seasons.	20.8%	20.3%	14.1%	9.0%	18.1%
Three duck zones with 2 season segments (2-way split) in one, two, or all zones	26.5%	29.1%	39.0%	24.0%	29.8%
Four duck zones with no split seasons.	16.2%	15.9%	24.3%	29.0%	18.8%
I do not have a preference.	36.5%	34.7%	22.6%	38.0%	33.3%

*Cases selected for those that indicated they hunted 1 day or more for DUCKS in the corresponding zone.

Table 22. Duck hunter zone structure preference for 2021 through 2025 seasons.

	North Zone <i>n</i> = 250	Central Zone <i>n</i> = 410	South Central <i>n</i> = 171	South Zone <i>n</i> =98	Total <i>n</i> = 930
Change it back to the 3-zone structure used 2006-2010.	20.4%	19.5%	11.7%	14.3%	17.7%
Use a 3-zone structure, but combine the North and Central zones and leave the South Central zone and South zones the way they are.	18.8%	8.0%	5.8%	4.1%	10.1%
Use a 3-zone structure, but combine the Central and South Central Zones and leave the North and South zones the way they are.	4.0%	15.6%	8.2%	5.1%	10.0%
Use a 3-zone structure but combine the South Central and South Zones, and leave the North and Central zones the way they are.	7.6%	11.7%	31.0%	17.3%	14.7%
Keep a 4-zone structure, but reconfigure the current zone configuration.	7.6%	7.6%	11.7%	15.3%	9.2%
No change: leave the 4-zone structure the way it is now.	41.6%	37.6%	31.6%	43.9%	38.2%

*Cases selected for those that indicated they hunted 1 day or more for DUCKS in the corresponding zone.

Table 23. Illinois waterfowl hunter satisfaction with current zone lines

Zone line between:	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
North and Central <i>n</i> = 880	7.6%	8.5%	29.8%	46.9%	7.2%
Central and South Central <i>n</i> = 817	6.9%	11.5%	35.3%	40.9%	5.5%
Central and South <i>n</i> = 791	5.9%	9.9%	36.9%	41.5%	5.8%
South and South Central <i>n</i> = 774	9.0%	12.7%	37.1%	35.0%	6.2%

1= Very Dissatisfied to 5= Very Satisfied,

*Cases selected for those that indicated they hunted 1 day or more for Waterfowl.

Table 24. How should current Illinois Waterfowl Zone lines move?

Zone line between:	Significantly farther North	Slightly farther North	This line should not move	Slightly farther South	Significantly farther South
North and Central <i>n</i> = 776	5.0%	11.3%	66.8%	12.5%	4.4%
Central and South Central <i>n</i> = 665	4.7%	11.9%	68.6%	10.8%	4.1%
Central and South <i>n</i> = 634	3.6%	12.5%	69.7%	9.9%	4.3%
South and South Central <i>n</i> = 590	4.9%	13.7%	68.5%	8.5%	4.4%

1= Very Dissatisfied to 5= Very Satisfied,

*Cases selected for those that indicated they hunted 1 day or more for Waterfowl.

Table 25. Predicted effect of a zone change on various aspects of duck hunting season.

	Zone	Greatly Decrease	Decrease	Would not change	Increase	Greatly Increase
Number of ducks you see	North n = 221	0.9%	4.5%	64.3%	24.4%	5.9%
	Central n = 354	4.2%	7.1%	59.3%	26.3%	3.1%
	South Central n = 152	4.6%	8.6%	34.2%	44.7%	7.9%
	South n = 83	3.6%	9.6%	60.2%	22.9%	3.6%
Mid-season match peak of migration	North n = 222	1.4%	5.4%	58.1%	27.0%	8.1%
	Central n = 354	2.5%	9.3%	53.7%	29.1%	5.4%
	South Central n = 151	5.3%	5.3%	35.8%	44.4%	9.3%
	South n = 83	2.4%	9.6%	60.2%	25.3%	2.4%
Amount of shooting you get in	North n = 223	0.4%	5.4%	63.7%	24.2%	6.3%
	Central n = 353	3.4%	8.8%	52.7%	30.6%	4.5%
	South Central n = 148	2.7%	9.5%	34.5%	46.6%	6.8%
	South n = 83	6.0%	9.6%	59.0%	22.9%	2.4%
Amount of time you spend duck hunting	North n = 223	0.4%	5.8%	65.5%	22.0%	6.3%
	Central n = 354	1.7%	6.8%	62.7%	23.7%	5.1%
	South Central n = 151	2.0%	4.0%	57.0%	29.1%	7.9%
	South n = 84	2.4%	7.1%	63.1%	25.0%	2.4%
Number of ducks you harvest	North n = 221	0.5%	5.4%	57.5%	28.5%	8.1%
	Central n = 356	2.8%	9.0%	50.6%	31.7%	5.9%
	South Central n = 150	2.7%	9.3%	29.3%	50.0%	8.7%
	South n = 84	6.0%	8.3%	52.4%	29.8%	3.6%
Season start date allowed the season to match migration	North n = 223	1.8%	3.1%	52.9%	28.3%	13.9%
	Central n = 357	4.8%	5.6%	47.9%	30.5%	11.2%
	South Central n = 149	2.7%	7.4%	29.5%	45.0%	15.4%
	South n = 86	2.3%	9.3%	45.3%	33.7%	9.3%

^a 1= Very Dissatisfied, 5= Very Satisfied

*Cases selected for those who hunted ≥ 1 day for ducks during the 2016-17 regular duck season.

Table 26. South central & South zone hunters' predicted effect of a zone change.

	Zone	Decrease	Would not change	Increase	χ^2	<i>p</i>	η
Number of ducks you see	Hunters of concern n = 116	15.5%	39.7%	44.8%	14.902	.005	.109
	South Central n = 80	11.3%	32.5%	56.3%			
	South n = 59	13.6%	61.0%	25.4%			
Mid-season match peak of migration	Hunters of concern n = 114	14.0%	39.5%	46.5%	13.351	.010	.124
	South Central n = 80	10.0%	35.0%	55.0%			
	South n = 60	11.7%	61.7%	26.7%			
Amount of shooting you get in	Hunters of concern n = 112	16.1%	40.2%	43.8%	16.606	.002	.093
	South Central n = 79	11.4%	30.4%	58.2%			
	South n = 60	15.0%	60.0%	25.0%			
Amount of time you spend duck hunting	Hunters of concern n = 115	7.8%	60.9%	31.3%	8.149	.086	--
	South Central n = 80	5.0%	48.8%	46.3%			
	South n = 60	10.0%	65.0%	25.0%			
Number of ducks you harvest	Hunters of concern n = 114	14.0%	32.5%	53.5%	17.671	.001	.142
	South Central n = 80	12.5%	26.3%	61.3%			
	South n = 60	15.0%	56.7%	28.3%			
Season start date allowed the season to match migration	Hunters of concern n = 114	13.2%	30.7%	56.1%	7.910	.095	--
	South Central n = 79	10.1%	29.1%	60.8%			
	South n = 62	11.3%	48.4%	40.3%			

^a 1= Very Dissatisfied, 5= Very Satisfied

*Cases selected for those who hunted ≥ 1 day for ducks during the 2016-17 regular duck season.

Table 27. Duck hunter zone structure preference for 2021 through 2025 seasons.

	River county hunters <i>n</i> = 357	East central hunters <i>n</i> = 147	North central hunters <i>n</i> = 38	Total <i>n</i> = 542	χ^2	<i>p</i>	η
Change it back to the 3-zone structure used 2006-2010.	18.5%	21.8%	26.3%	19.9%	10.237	.420	--
Use a 3-zone structure, but combine the North and Central zones and leave the South Central zone and South zones the way they are.	9.0%	12.9%	13.2%	10.3%			
Use a 3-zone structure, but combine the Central and South Central Zones and leave the North and South zones the way they are.	12.3%	15.6%	10.5%	13.1%			
Use a 3-zone structure but combine the South Central and South Zones, and leave the North and Central zones the way they are.	15.4%	7.5%	10.5%	12.9%			
Keep a 4-zone structure, but reconfigure the current zone configuration.	8.7%	9.5%	7.9%	8.9%			
No change: leave the 4-zone structure the way it is now.	36.1%	32.7%	31.6%	34.9%			

*Cases selected for those that indicated they hunted 1 day or more for DUCKS in the corresponding zone.

Table 28. Central zone hunters' predicted effect of a zone change.

	Zone	Decrease	Would not change	Increase	χ^2	<i>p</i>	η
Number of ducks you see	River county hunters n = 311	11.6%	58.2%	30.2%	9.451	.051	--
	East Central hunters n = 129	5.4%	56.6%	38.0%			
	North Central hunters n = 31	12.9%	38.7%	48.4%			
Mid-season match peak of migration	River county hunters n = 314	12.1%	52.9%	35.0%	11.090	.026	.153
	East Central hunters n = 127	4.7%	51.2%	44.1%			
	North Central hunters n = 31	19.4%	35.5%	45.2%			
Amount of shooting you get in	River county hunters n = 312	12.8%	53.2%	34.0%	10.288	.036	.148
	East Central hunters n = 128	5.5%	48.4%	46.1%			
	North Central hunters n = 30	16.7%	40.0%	43.3%			
Amount of time you spend duck hunting	River county hunters n = 314	9.6%	63.1%	27.4%	9.221	.056	--
	East Central hunters n = 127	3.9%	58.3%	37.8%			
	North Central hunters n = 31	9.7%	48.4%	41.9%			
Number of ducks you harvest	River county hunters n = 315	13.0%	48.9%	38.1%	11.316	.023	.155
	East Central hunters n = 128	4.7%	46.9%	48.4%			
	North Central hunters n = 31	16.1%	32.3%	51.6%			
Season start date allowed the season to match migration	River county hunters n = 313	9.9%	48.2%	41.9%	8.652	.070	--
	East Central hunters n = 129	6.2%	40.3%	53.5%			
	North Central hunters n = 32	15.6%	31.3%	53.1%			

^a 1= Very Dissatisfied, 5= Very Satisfied

*Cases selected for those who hunted ≥ 1 day for ducks during the 2016-17 regular duck season.

Table 29. Distribution of Illinois Waterfowl License purchasers and 2015-16 IWHS by county.

County Name	All license purchasers		Respondents to 2015-16 IWHS	
	Frequency	Percent	Frequency	Percent
Adams	755	1.5%	25	1.3%
Brown	127	0.3%	1	0.1%
Calhoun	531	1.0%	17	0.9%
Champaign	639	1.3%	16	0.8%
Clark	105	0.2%	2	0.1%
Coles	226	0.4%	11	0.6%
Cumberland	119	0.2%	4	0.2%
Douglas	174	0.3%	11	0.6%
Edgar	107	0.2%	3	0.2%
Effingham	280	0.6%	4	0.2%
Ford	149	0.3%	5	0.3%
Greene	298	0.6%	12	0.6%
Iroquois	348	0.7%	4	0.2%
Jersey	598	1.2%	22	1.1%
Kankakee	744	1.5%	27	1.4%
Madison	2366	4.7%	93	4.8%
Moultrie	202	0.4%	9	0.5%
Piatt	160	0.3%	4	0.2%
Pike	325	0.6%	7	0.4%
Shelby	239	0.5%	6	0.3%
Vermilion	227	0.4%	11	0.6%
Total	8,719	17.2%	294	15.2%

Table 30. Distribution 2015-16 IWHS hunters by county hunted most often.

County Name	Central zone county hunted most often	
	Frequency	Percent of all hunters
Adams	15	1.3%
Brown	5	0.4%
Calhoun	30	2.5%
Champaign	3	0.3%
Clark	3	0.3%
Coles	3	0.3%
Cumberland	3	0.3%
Douglas	2	0.2%
Edgar	1	0.1%
Effingham	0	0.0%
Ford	1	0.1%
Greene	9	0.8%
Iroquois	1	0.1%
Jersey	13	1.1%
Kankakee	15	1.3%
Madison	31	2.6%
Moultrie	4	0.3%
Piatt	2	0.2%
Pike	23	1.9%
Shelby	10	0.8%
Vermilion	5	0.4%
Total	179	15.0%

Table 31. 2012-13 IWHS Central east duck hunter zone structure preference for 2016 through 2020.

	Frequency	Percent
Continuous seasons: combine N and C, leave SC and SZ the way they are.	9	5.0%
Continuous seasons: combine C and SC and leave N and S the way they are.	14	7.8%
Split seasons: combine N and C and leave the SC and S the way they are	6	3.4%
Split seasons: Combine SC and S and leave N and C the way they are.	16	8.9%
Split seasons: combine the C and SC and leave the N and S the way they are.	14	7.8%
No splits: change it back to 3-zone structure.	49	27.4%
No change: leave the 4-zone structure the way it is now	71	39.7%

*Cases selected for those that indicated they hunted 1 day or more for DUCKS in the corresponding counties.

Table 32. Duck hunter zone structure preference for 2021 through 2025 seasons.

	2013-14 IWHS		2016-17 IWHS		Combined	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Three duck zones with no split seasons.	75	23.8%	25	14.9%	100	20.7%
Three duck zones with 2 season segments (2-way split) in one, two, or all zones.	55	17.5%	50	29.8%	105	21.7%
Four duck zones with no split seasons.	84	26.7%	32	19.0%	116	24.0%
I do not have a preference.	101	32.1%	61	36.3%	162	33.5%

*Cases selected for those that indicated they hunted 1 day or more for DUCKS in the corresponding zone.

Table 33. 2014 IWHS Central East duck hunter 3 zone structure preference for 2016 through 2020 with 2 season segments.

	Frequency	Percent
Combine the North and Central Zones into one zone, and leave the South Central and South Zones the way they are.	30	9.6%
Combine the Central and South Central Zones into one zone, and leave the North and South Zones the way they are.	77	24.7%
Combine the South Central and South Zone into one zone, and leave the North and Central Zones the way they are.	117	37.5%
I do not have a preference.	88	28.2%

*Cases selected for those that indicated they hunted 1 day or more for DUCKS in the corresponding counties.

Table 34. 2014 IWHS Central East duck hunter zone structure preference for 2016 through 2020 with a continuous season.

	Frequency	Percent
Change it back to the 3-zone structure that was used from 2006 through 2010.	63	20.3%
Use a 3-zone structure, but combine the North and Central zones into one, and leave the South Central and South Zones.	21	6.8%
Use a 3-zone structure, but combine the Central and South Central zones, and leave the North and South Zones.	37	11.9%
Use a 3-zone structure, but combine the South Central and South zones, and leave the North and Central Zones.	57	18.4%
No change: leave the 4-zone structure the way it is now.	132	42.6%

*Cases selected for those that indicated they hunted 1 day or more for DUCKS in the corresponding counties.

Table 35. Waterfowl hunter satisfaction with waterfowl harvest reporting methods.

	Extremely Dissatisfied	Dissatisfied	Neither	Satisfied	Extremely Satisfied
Windshield Card <i>n</i> = 163	11.0%	11.7%	30.7%	39.3%	7.4%
Online reporting <i>n</i> = 166	10.2%	9.6%	31.3%	41.6%	7.2%
Check in/out <i>n</i> = 284	4.2%	2.8%	20.4%	59.5%	13.0%
Drop box <i>n</i> = 292	3.8%	5.1%	21.2%	57.5%	12.3%
Check station <i>n</i> = 250	4.0%	4.0%	22.0%	56.4%	13.6%

Table 36. Importance of factors to making a satisfying hunt.

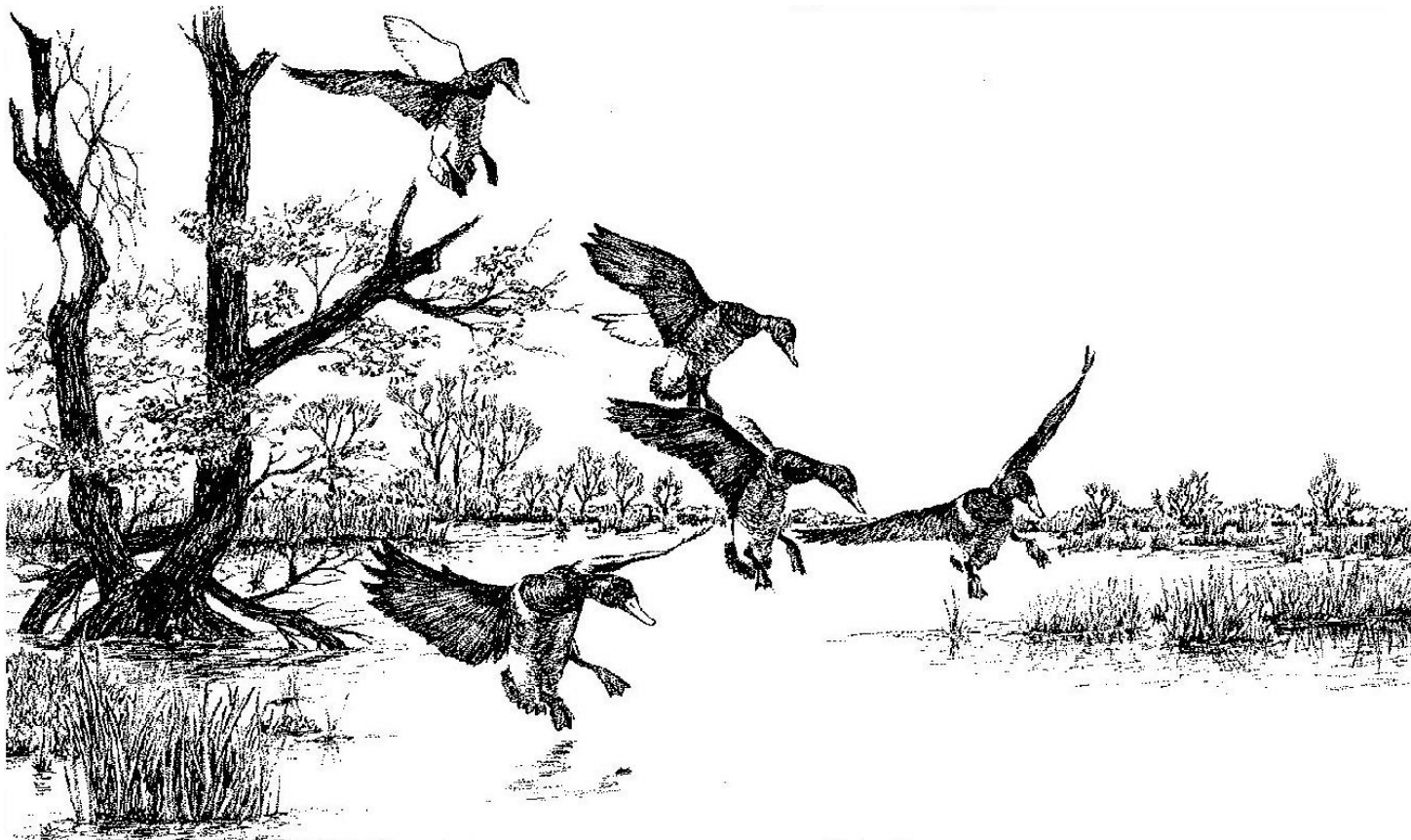
	Not at all Important %	Slightly Important %	Somewhat Important %	Important %	Extremely Important %	\bar{x} (S.D.) ^a
Bagging a duck or goose	4.6	14.6	29.7	38.8	12.3	3.40(1.03)
Developing my duck/goose hunting skills	5.2	9.4	19.8	47.7	17.9	3.64(1.04)
Enjoying nature and the outdoors	0.5	0.7	6.7	39.1	53.0	4.43(0.7)
Harvesting a variety of ducks	12.3	17.2	32.3	27.8	10.4	3.07(1.16)
Harvesting a duck/goose with a band	25.3	17.8	24.3	16.4	16.2	2.80(1.40)
Seeing ducks/geese	0.2	1.0	6.4	36.2	56.2	4.47(0.68)
Getting shots at birds	2.3	7.0	23.0	41.3	26.4	3.82(0.98)
Bagging my limit of ducks/geese	24.0	25.1	27.4	14.9	8.7	2.59(1.24)

Table 37. Other hunting seasons that affect Illinois hunters' preferred duck season dates.

	Number of hunters	Percentage of hunters (%)
Firearm deer season	322	32%
Upland game season	75	8%
Waterfowl opening day in another state	58	6%
Preferences are not based on hunting seasons	550	55%
Other hunting season	10	1%
Archery deer season	8	1%

*Cases selected for those who indicated they hunted for at least one day during the 2016-17 duck hunting seasons.

Appendix A
Illinois Waterfowl Hunter Survey
2016-2017 Season



Illinois Department of Natural Resources
 Division of Wildlife Resources
 &
 The Illinois Natural History Survey



The Department of Natural Resources is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the Illinois Compiled Statutes, The Wildlife Code, Chapter 520. Disclosure of information is voluntary. This study is funded by the federal Wildlife Restoration Fund through your purchase of sporting arms and ammunition.

THANK YOU FOR YOUR COOPERATION!

All of your responses will be kept confidential.
 Please return this survey in the postage-paid return envelope provided.

Section 1. Waterfowl Hunting in Illinois. Please provide the following information so that Illinois Department of Natural Resources (IDNR) waterfowl biologists may better understand hunters in Illinois.

1. Did you purchase an Illinois State Waterfowl Stamp for the 2016-2017 seasons?

____ Yes ____ No

2. Which of the following best describes how often you hunt **waterfowl** (ducks, geese, or coots) in Illinois?

____ Every year ____ Most years ____ Occasional years ____ Rarely ____ Never

If you never hunt waterfowl in Illinois, please go to Section 7 on the back cover. ←

3. Did you hunt waterfowl in Illinois during the 2016-2017 waterfowl hunting seasons?

____ Yes ____ No (If "No," please go to Section 3)

3a. Was the 2016-17 Illinois waterfowl season your **first** time hunting waterfowl in Illinois?

____ No ____ Yes (new Illinois resident hunter) ____ Yes (new nonresident hunter)

Please refer to the zone map on the back of the included cover letter to answer questions 3b-3d.

3b. In which of the following zones did you hunt **opening day of DUCK season**? (Please select all that apply)

____ North Zone ____ Central Zone ____ South Central Zone ____ South Zone ____ N/A

3c. In which of the following zones did you hunt **opening day of GOOSE season**? (Please select all that apply)

____ North Zone ____ Central Zone ____ South Central Zone ____ South Zone ____ N/A

3d. In which of the following zones did you hunt **waterfowl MOST often**? (Please select **one**)

____ North Zone ____ Central Zone ____ South Central Zone ____ South Zone

4. Did you harvest a greater variety of species this year than you have in the last 5 years? ____ Yes ____ No

5. Please indicate which species you harvested between September 2016 and January 2017. (Select all that apply).

____ Mallard ____ Redhead ____ Green-winged Teal ____ Shoveler ____ Canvasback

____ Pintail ____ Gadwall ____ Blue-winged Teal ____ Scaup ____ Wood Duck

____ Coot ____ Wigeon ____ Other (please identify): _____

6. Which of the following do you opportunistically take even though they are not what you are hunting? (Select all that apply).

____ Geese ____ Dabbling ducks ____ Diving ducks ____ Coots ____ None

6a. If you harvested coots, which of the following best describes your reasons for doing so? (Select all that apply).

____ Dog training ____ No other birds decoyed ____ To eat ____ Bait for trapping

____ Other (please identify): _____

Section 2. Waterfowl Harvest in Illinois. Please provide the following information so that IDNR waterfowl biologists may estimate waterfowl harvest in Illinois. This information will help IDNR conserve waterfowl populations and provide hunting opportunities in Illinois.
If you did not hunt waterfowl in Illinois during the 2016-17 seasons, please go to Section 3.

1. Please report your hunting effort and harvest in Illinois between September 2016 and January 31st 2017 in the following tables.

- Include only **your personal effort and harvest** (DO NOT include harvests for party)
- Count part of 1 day as 1 whole day.
- Only report days hunted in the table for the species you targeted that day.

a. **September Teal Season** (DO NOT include harvest after September.)

Zone hunted	County hunted	Total days hunted	Teal harvested	Teal downed but not retrieved

b. **September Canada Goose Season** (DO NOT include harvest after September.)

Zone hunted	County hunted	Total days hunted	Geese harvested	Geese downed but not retrieved

c. **Regular Duck Season** (DO NOT include harvest from September.)

Zone hunted	County hunted	Total days hunted	Mallards harvested	Wood ducks harvested	Canvas-backs harvested	Other ducks harvested	Coots harvested	Ducks downed but not retrieved

d. **Regular Goose Season** (DO NOT include harvest from September or Conservation Order Light Goose season that occurs after regular goose season closes.)

Zone hunted	County hunted	Total days hunted	Canada geese harvested	White-fronted (Specklebelly) geese harvested	Snow/Blue/Ross' geese harvested	Geese downed but not retrieved

2. Did you use a spinning-wing decoy to **hunt ducks** in Illinois during the 2016-2017 season?
 Yes No
3. How does the number of white-fronted (specklebelly) geese you saw this year compare to the last 5 years?
 Much less Less About the same More Much more
4. Did you target white-fronted (specklebelly) geese during the Regular Goose Season? (Please check all that apply)
 Yes, I used white-fronted (specklebelly) decoys
 Yes, I used a white-fronted (specklebelly) call
 No, I did not target them, but I shot at them when I had the opportunity
 No, I did not target or shoot at them
5. Did you follow precautions for handling harvested waterfowl as outlined in the IL Digest of Waterfowl Hunting Regulations?
 Yes No I did not handle any waterfowl

Section 3. Youth Hunts. Please answer the following questions about mentoring youth hunters in Illinois. Please note: “Youths” are defined as hunters **17 years of age or younger**.

1. Did you take a youth (17 years old & younger) hunting during the **2016 Youth Waterfowl Hunting Days**?
 Yes No (If “No,” Please go to question 2)
- 1a. If “Yes,” was this **at least one youth’s first time** duck or goose hunting? Yes No
- 1b. Was this **YOUR** first time accompanying a youth during the **Youth Waterfowl Hunting Days**?
 Yes No
- 1c. Please report information for each youth that hunted during the **2016 Youth Waterfowl Hunting Days**.
 (North Zone: **Oct. 8-9**, Central Zone: **Oct. 15-16**, South Central Zone: **Nov. 5-6**, South Zone: **Nov. 12-13**)
 Enter **0** if the youth did not harvest any ducks, geese, or coots.

	Age	Number of Days hunted	County hunted	Mallards harvested	Wood ducks harvested	Other ducks harvested	Geese harvested	Coots harvested
Youth 1								
Youth 2								
Youth 3								
Youth 4								

2. Did you take a youth hunting during the 2016-2017 **regular** duck or goose seasons in Illinois?
 Yes (If “Yes,” please check which season(s)): Regular Duck Regular Goose
 No
 A youth accompanied me hunting, but they did not hunt

3. If you have ever taken a youth hunting, which **one** of the following is the most important reason for doing so? (Please check **only one**.)

To protect the sport for future generations To build character
 To teach responsible and safe hunting practices To make memories
 To demonstrate a love for the outdoors Other (please identify): _____

4. Have you ever introduced an **adult hunter** (18 years old or older) to waterfowl hunting?

Yes No

Section 4. Satisfaction and zone timing. The following questions will tell us about yourself as a hunter and your satisfaction with the **most recent duck and/or goose season(s)**.

1. Do you feel the dates of the 2016-17 waterfowl hunting seasons were too early, about right, or too late in the zone where you hunted most often? (Please circle **one number for each season**.)

	Too early	About right	Too late	I am not sure	I did not hunt this season.
Teal season (<i>September only</i>)	1	2	3	4	5
Duck Season	1	2	3	4	5
Canada Goose Season	1	2	3	4	5

2. Please rate your **SATISFACTION with the most recent duck season(s) you hunted in Illinois** by circling the number that best matches your response. **If you did not hunt ducks during 2016-17, please go to question 3.**

REGULAR DUCK SEASON	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
Number of ducks you saw	1	2	3	4	5
Mid-season matched peak of duck migration	1	2	3	4	5
Amount of shooting you got in	1	2	3	4	5
Number of ducks migrating through areas you hunted	1	2	3	4	5
Amount of time you spent duck hunting	1	2	3	4	5
Number of ducks you harvested	1	2	3	4	5
Season start date allowed the season to match migration.	1	2	3	4	5
Weather during duck season	1	2	3	4	5

3. Please rate your **SATISFACTION with the most recent goose season(s) you hunted in Illinois** by circling the number that best matches your response. **If you did not hunt geese during 2016-17, please go to question 4.**

REGULAR GOOSE SEASON	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
Number of geese you saw	1	2	3	4	5
Mid-season matched peak of goose migration	1	2	3	4	5
Amount of shooting you got in	1	2	3	4	5
Number of geese that migrated through areas you hunted	1	2	3	4	5
Amount of time you spent goose hunting	1	2	3	4	5
Number of geese you harvested	1	2	3	4	5
Season start date allowed the season to match migration.	1	2	3	4	5
Weather during goose season	1	2	3	4	5

4. In which zone do you **intend** to hunt **DUCKS** most often during the 2017-18 duck hunting season?
 ____ North Zone ____ Central Zone ____ South Central Zone ____ South Zone

5. Currently Illinois has a continuous duck season with 4 duck hunting zones. The next opportunity to change zone options will be for the period **2021 through 2025**. The U.S. Fish and Wildlife Service likely will allow the following duck season zoning options. Which option do you prefer for Illinois for the period 2021 through 2025?
Please choose ONE response.

- ____ Three duck zones with no split seasons.
- ____ Three duck zones with 2 season segments (2-way split) in one, two, or all zones.
- ____ Four duck zones with no split seasons.
- ____ I do not have a preference.

6. If a continuous duck season is established in Illinois during the period 2021 through 2025, which of the following zoning options would you prefer? **Please choose ONE response.**

- ____ Change it back to the 3-zone structure that was used from 2006 through 2010.
- ____ Use a 3-zone structure, but combine the North and Central zones into one zone, and leave the South Central and South Zones the way they are.
- ____ Use a 3 zone structure, but combine the Central and South Central Zones into one zone, and leave the North and South Zones the way they are.
- ____ Use a 3 zone structure, but combine the South Central and South Zones into one zone, and leave the North and Central Zones the way they are.
- ____ Keep a 4 zone structure, but reconfigure the current zone configuration.
- ____ No change: leave the 4-zone structure the way it is now.

Please refer to the zone map on the back of the included cover letter to answer questions 7-10.

7. Using the table below, please indicate your satisfaction with the current Illinois Waterfowl Zone lines.

Zone line between...	Very Dissatisfied	Dissatisfied	Unsure	Satisfied	Very Satisfied	I do not hunt these zones
North and Central Zones	1	2	3	4	5	0
Central and South Central Zones	1	2	3	4	5	0
Central and South Zones	1	2	3	4	5	0
South Central and South Zones	1	2	3	4	5	0

8. Using the table below, please indicate how you feel the current Illinois Waterfowl Zone lines should move.

Zone line between...	Significantly Farther North	Slightly Farther North	This line should NOT Move	Slightly Farther South	Significantly Farther South	I do not hunt these zones
North and Central Zones	1	2	3	4	5	0
Central and South Central Zones	1	2	3	4	5	0
Central and South Zones	1	2	3	4	5	0
South Central and South Zones	1	2	3	4	5	0

9. In which county do you hunt waterfowl most often? _____ County

9a. Do you feel this county is located in correct zone? _____ Yes _____ No

9b. If no, in which zone do you feel this county should be placed?

_____ North Zone _____ Central Zone _____ South Central Zone _____ South Zone

10. Please indicate how changing the zone of the area you hunt most often would impact the following by circling the number that best matches your response.

	Greatly Decrease	Decrease	Would not change	Increase	Greatly Increase
Number of ducks you see	1	2	3	4	5
Mid-season matched peak of duck migration	1	2	3	4	5
Amount of shooting you get in	1	2	3	4	5
Amount of time you spend duck hunting	1	2	3	4	5
Number of ducks you harvest	1	2	3	4	5
Season start date allowed the season to match migration.	1	2	3	4	5

Section 5. Public Land hunting. Please answer the following questions concerning waterfowl hunting preferences.

1. Did you hunt waterfowl on public land in Illinois during the 2016-17 waterfowl seasons?

_____ Yes _____ No (If "No," please go to **Section 6**)

1a. If "Yes," please rate how satisfied were you with the procedure for **reporting** your waterfowl harvest by selecting the answer that best matches your response.

	Did not use	Extremely Dissatisfied	Dissatisfied	Neither	Satisfied	Extremely Satisfied
Windshield Card	0	1	2	3	4	5
Online reporting	0	1	2	3	4	5
Check in/out	0	1	2	3	4	5
Drop box	0	1	2	3	4	5
Check station	0	1	2	3	4	5

1b. Were you ever denied an access permit to a state site for not reporting your harvest by the due date?

_____ Yes _____ No

Section 6. Hunting preferences. Please answer the following questions concerning waterfowl hunting preferences.

1. What makes a hunt satisfying differs from person to person. Please rate how important each of the following is to your satisfaction when you hunt waterfowl.

	Not at all Important	Slightly Important	Somewhat Important	Important	Extremely Important
Bagging a duck or goose	1	2	3	4	5
Developing my duck/goose hunting skills	1	2	3	4	5
Enjoying nature and the outdoors	1	2	3	4	5
Harvesting a variety of ducks	1	2	3	4	5
Harvesting a duck/goose with a band	1	2	3	4	5
Seeing ducks/geese	1	2	3	4	5
Getting shots at birds	1	2	3	4	5
Bagging my limit of ducks/geese	1	2	3	4	5

2. Hunters are often interested in harvesting a specific species or type of waterfowl when they go hunting. Which **ONE of the following BEST** describes your target when you hunt waterfowl? Please **choose ONE response**:

- | | | |
|--|---------------------------------------|---|
| <input type="checkbox"/> Any legal ducks | <input type="checkbox"/> Mallards | <input type="checkbox"/> Dabbling ducks |
| <input type="checkbox"/> Diving ducks | <input type="checkbox"/> Canada geese | <input type="checkbox"/> Other geese |

3. If you could hunt waterfowl in **only ONE** type of habitat, which of the following would you prefer? Please **choose ONE response** for ducks and **ONE response** for geese:

Ducks

- | | |
|--|--|
| <input type="checkbox"/> Fields | <input type="checkbox"/> Flooded timber |
| <input type="checkbox"/> Deep water | <input type="checkbox"/> Flooded fields |
| <input type="checkbox"/> Streams/River | <input type="checkbox"/> Shallow vegetated water |
| <input type="checkbox"/> Ice | <input type="checkbox"/> Shallow open water |
| <input type="checkbox"/> Other _____ | |

Geese

- | | |
|--|--|
| <input type="checkbox"/> Fields | <input type="checkbox"/> Flooded timber |
| <input type="checkbox"/> Deep water | <input type="checkbox"/> Flooded fields |
| <input type="checkbox"/> Streams/River | <input type="checkbox"/> Shallow vegetated water |
| <input type="checkbox"/> Ice | <input type="checkbox"/> Shallow open water |
| <input type="checkbox"/> Other _____ | |

Section 7. Background Information. The following questions allow us to understand more about the people involved in waterfowl hunting in Illinois. All responses are kept confidential.

1. Which other hunting seasons affect your preferences for duck season dates? (Please check **all that apply**)

<input type="checkbox"/> Firearm deer season	<input type="checkbox"/> My preferences are not based on other hunting seasons.
<input type="checkbox"/> Waterfowl opening day in another state	<input type="checkbox"/> Upland game season opening day
<input type="checkbox"/> Other (Please identify): _____	

2. If you had only one day to hunt, which **ONE** of the following would you hunt? (Please check **only one**)

<input type="checkbox"/> Deer	<input type="checkbox"/> Furbearers	<input type="checkbox"/> Pheasants	
<input type="checkbox"/> Quail	<input type="checkbox"/> Squirrels	<input type="checkbox"/> Rabbits	<input type="checkbox"/> Turkeys
<input type="checkbox"/> Ducks	<input type="checkbox"/> Geese	<input type="checkbox"/> Doves	<input type="checkbox"/> Other (Please identify): _____

3. How many years have you hunted waterfowl in Illinois? _____ Years

4. What is your county of residence? _____ County (If nonresident, please include state)

5. Please give your age. _____ Years

6. What is your gender? _____ Male _____ Female

Comments



THANK YOU FOR YOUR TIME AND ASSISTANCE!

Please return this survey in the postage-paid envelope provided.

The Illinois Department of Natural Resources receives federal assistance and therefore must comply with federal anti-discrimination laws. In compliance with the Illinois Human Rights Act, the Illinois Constitution, Title VI of the 1964 Civil Rights Act, Section 504 of the Rehabilitation Act as amended, and the U.S. Constitution, the Illinois Department of Natural Resources does not discriminate on the basis of race, color, sex, national origin, age, or disability. If you believe you have been discriminated against in any program, activity, or facility, please contact the Equal Employment Opportunity Officer, Department of Natural Resources, One Natural Resources Way, Springfield, IL 62701-1787, (217) 782-7616 or the Officer of Human Resources, U.S. Fish and Wildlife Service, Washington, D.C. 20240.

Appendix B

ILLINOIS NATURAL HISTORY SURVEY

Prairie Research Institute
University of Illinois at Urbana-Champaign

Dear Waterfowl Hunter,

Your name was randomly selected from a list of 2016 Illinois Harvest Information Program (HIP) registrants. We are asking you to provide information about your activities during the 2016-17 waterfowl hunting seasons in Illinois. **Even if you did not hunt ducks or geese in Illinois during the 2016-17 seasons, we need to hear from you and we ask that you take a few minutes to complete and return the enclosed questionnaire.**

We have included the Illinois waterfowl zone map on the back of this letter if you need it to determine the zone(s) you hunted.

This study, jointly conducted by the Illinois Department of Natural Resources and the Illinois Natural History Survey, is an effort to learn about waterfowl hunting activities in Illinois. Results of this study will help waterfowl managers make decisions to improve hunting opportunities and to better manage Illinois' duck and goose populations. **Your responses are voluntary and completely confidential.** By responding you will help us more effectively manage waterfowl and hunting in Illinois.

If you do not wish to participate, please return the blank questionnaire so we can remove you from our mailing list.

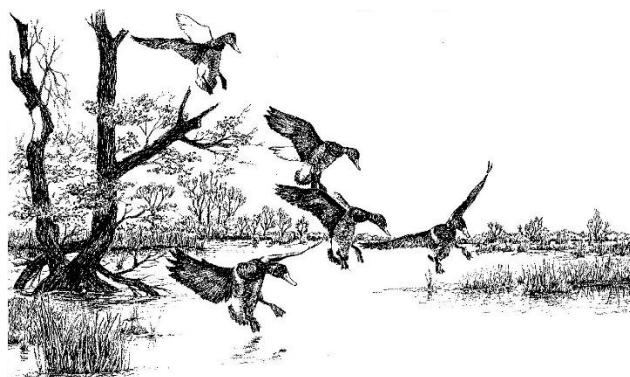
You may access the results of this and other studies of hunters and hunting in Illinois at <http://www.inhs.illinois.edu/programs/hd/>. You may also find information about Illinois Department of Natural Resources wildlife management programs and wildlife in Illinois at <http://dnr.state.il.us/orc/wildliferesources/>.

If you have questions regarding this study, please call us at (217) 244-5121.

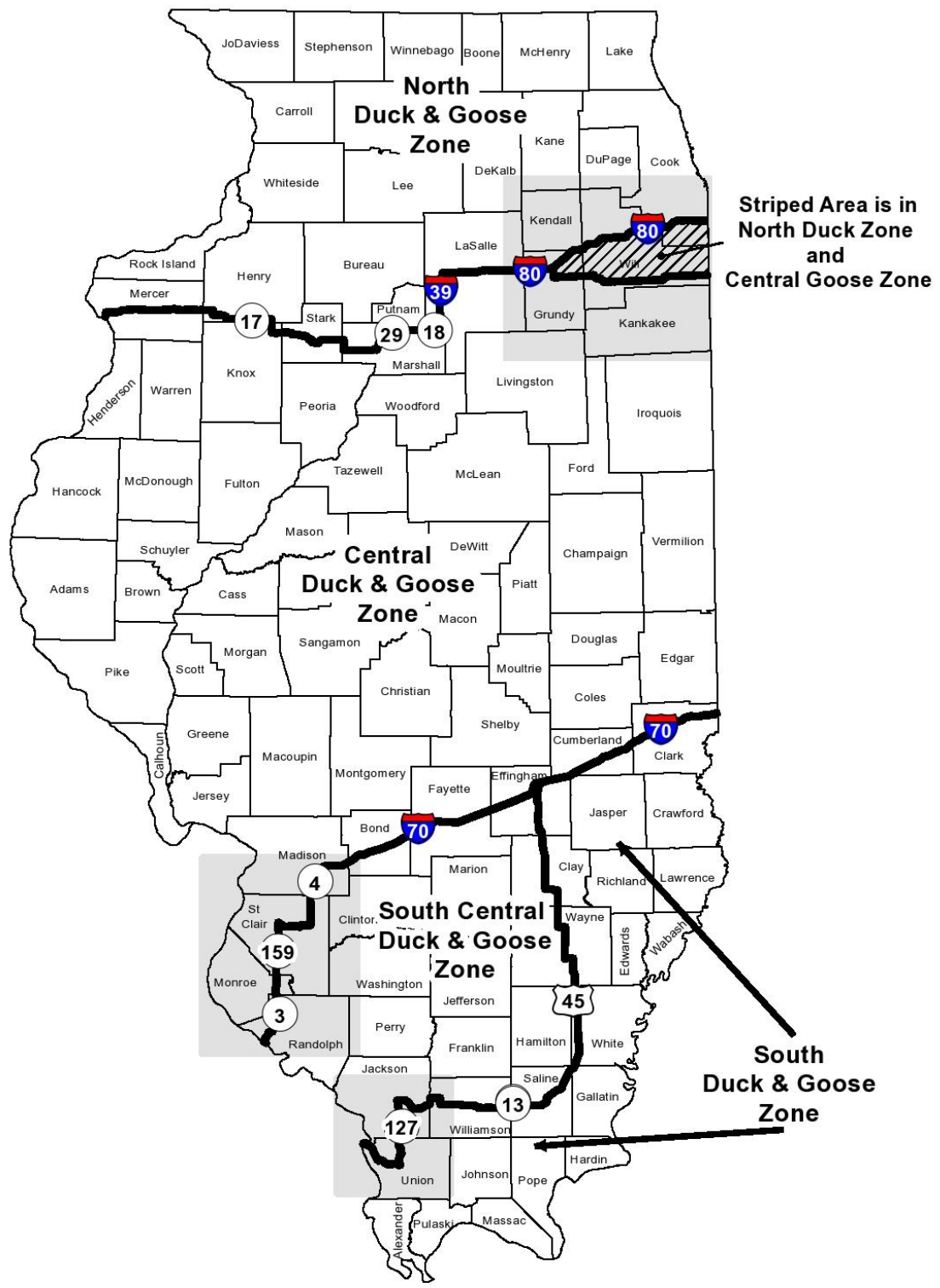
Sincerely,

A handwritten signature in black ink, appearing to read "Craig A. Miller".

Craig A. Miller
Human Dimensions Research Program



Please refer to the graphics on this page to answer questions about Illinois waterfowl zones.



Appendix C

Dear Waterfowl Hunter,

Recently you were mailed a questionnaire about your waterfowl hunting activities in Illinois. We have not yet received your response. **If you have already returned the questionnaire, we thank you. If you have not returned the questionnaire, please do so as soon as possible. Your input is very important!**

Your name and address will be deleted from our mailing list when your questionnaire is received. Thank you for your cooperation.

Appendix D

ILLINOIS NATURAL HISTORY SURVEY

Prairie Research Institute
University of Illinois at Urbana-Champaign

Dear Waterfowl Hunter,

Your name was randomly selected from the list of 2016 Illinois Harvest Information Program (HIP) registrants. We recently mailed you a questionnaire regarding your hunting experiences in Illinois during the 2016-17 waterfowl season. If you have already returned the questionnaire, we thank you.

If you have not returned your completed questionnaire, please do so as soon as possible. We have enclosed another copy for your use. **The information you and other selected hunters provide will help waterfowl managers make decisions to improve hunting opportunities and to better manage Illinois' duck and goose populations.** Your responses are voluntary and completely confidential.

Even if you did not hunt ducks or geese in Illinois during the 2106-17 seasons, we need to hear from you and we ask that you take a few minutes to complete and return the enclosed questionnaire. A postage paid envelope is provided for you to return the questionnaire to us.

If you do not wish to participate, please return the blank questionnaire so we can remove your name from our mailing list.

You may access the results of this and other studies of hunters and hunting in Illinois at <http://www.inhs.illinois.edu/programs/hd/>. You may also find information about Illinois Department of Natural Resources wildlife management programs and wildlife in Illinois at <http://dnr.state.il.us/orc/wildliferesources/>.

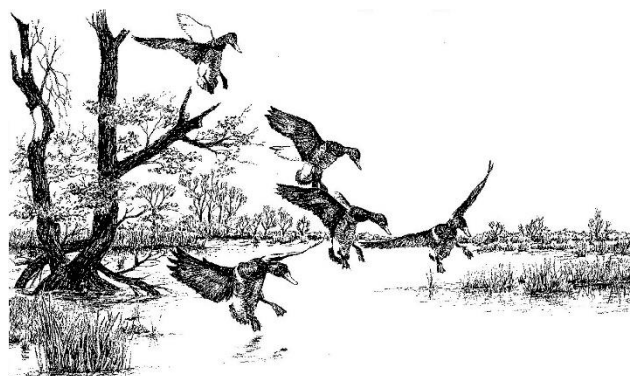
If you have questions regarding this study, please call us at (217) 244-5121.

Thank you for helping with this important study.

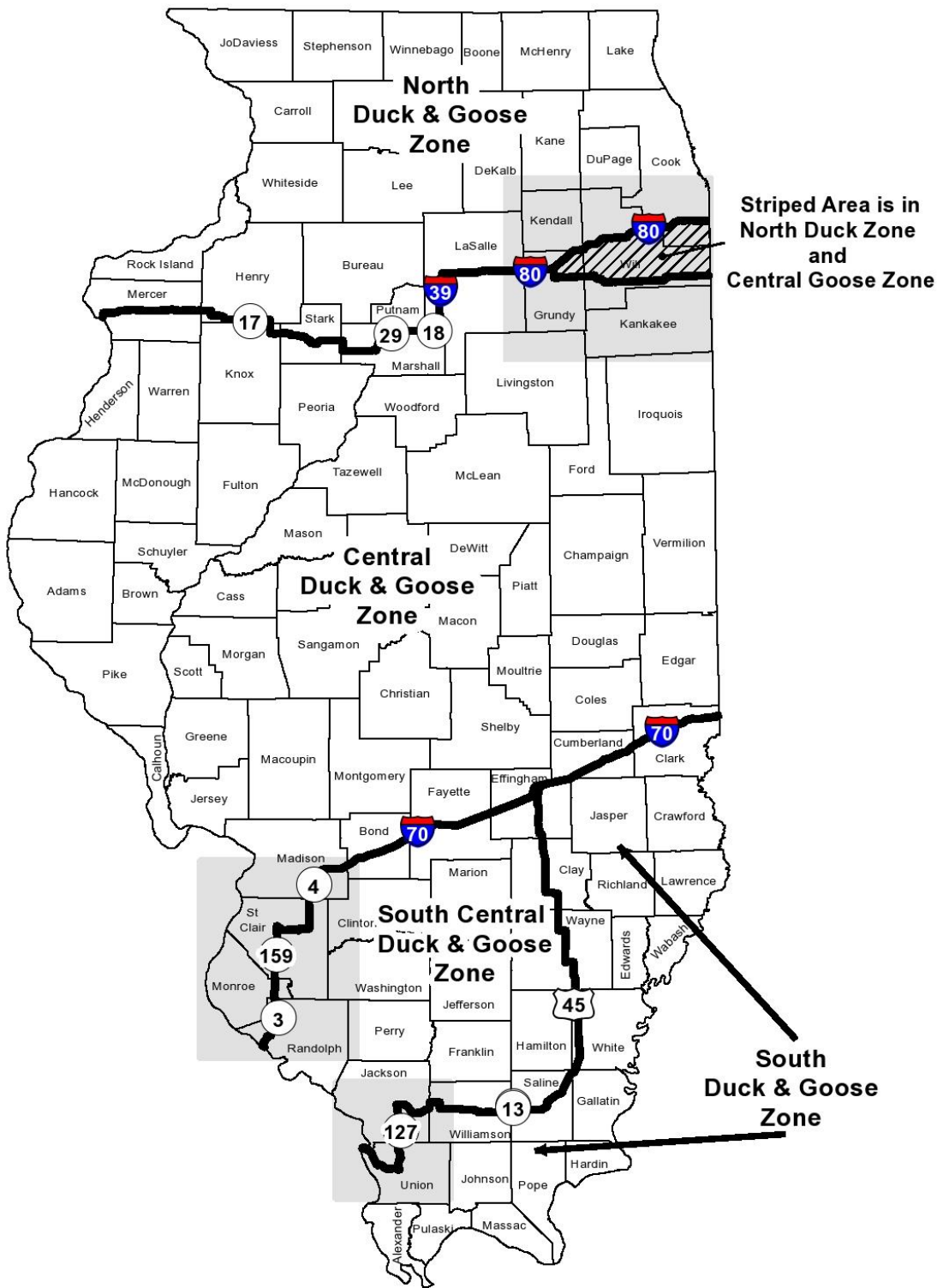
Sincerely,

A handwritten signature in black ink, appearing to read "Craig A. Miller".

Craig A. Miller
Human Dimensions Research Program



Please refer to the graphics on this page to answer questions about Illinois waterfowl zones.



Appendix E

ILLINOIS NATURAL HISTORY SURVEY

Prairie Research Institute
University of Illinois at Urbana-Champaign

Dear Waterfowl Hunter,

Your name was randomly selected from the list of 2016 Illinois Harvest Information Program (HIP) registrants. We recently mailed you a questionnaire regarding your hunting experiences in Illinois during the 2016-17 waterfowl season. If you have already returned the questionnaire, we thank you.

If you have not returned your completed questionnaire, please do so as soon as possible. We have enclosed another copy for your use. **The information you and other selected hunters provide will help waterfowl managers make decisions to improve hunting opportunities and to better manage Illinois' duck and goose populations.** Your responses are voluntary and completely confidential. A postage paid envelope is provided for you to return the questionnaire to us.

You may access the results of this and other studies of hunters and hunting in Illinois at <http://www.inhs.illinois.edu/programs/hd/>. You may also find information about Illinois Department of Natural Resources wildlife management programs and wildlife in Illinois at <http://dnr.state.il.us/orc/wildliferesources/>.

If you have questions regarding this study, please call us at (217) 244-5121.

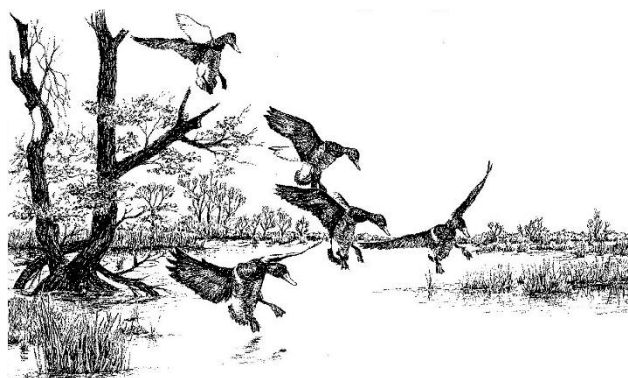
Thank you for helping with this important study.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig A. Miller".

Craig A. Miller
Human Dimensions Research Program

Human Dimensions Research Program



Please refer to the graphics on this page to answer questions about Illinois waterfowl zones.

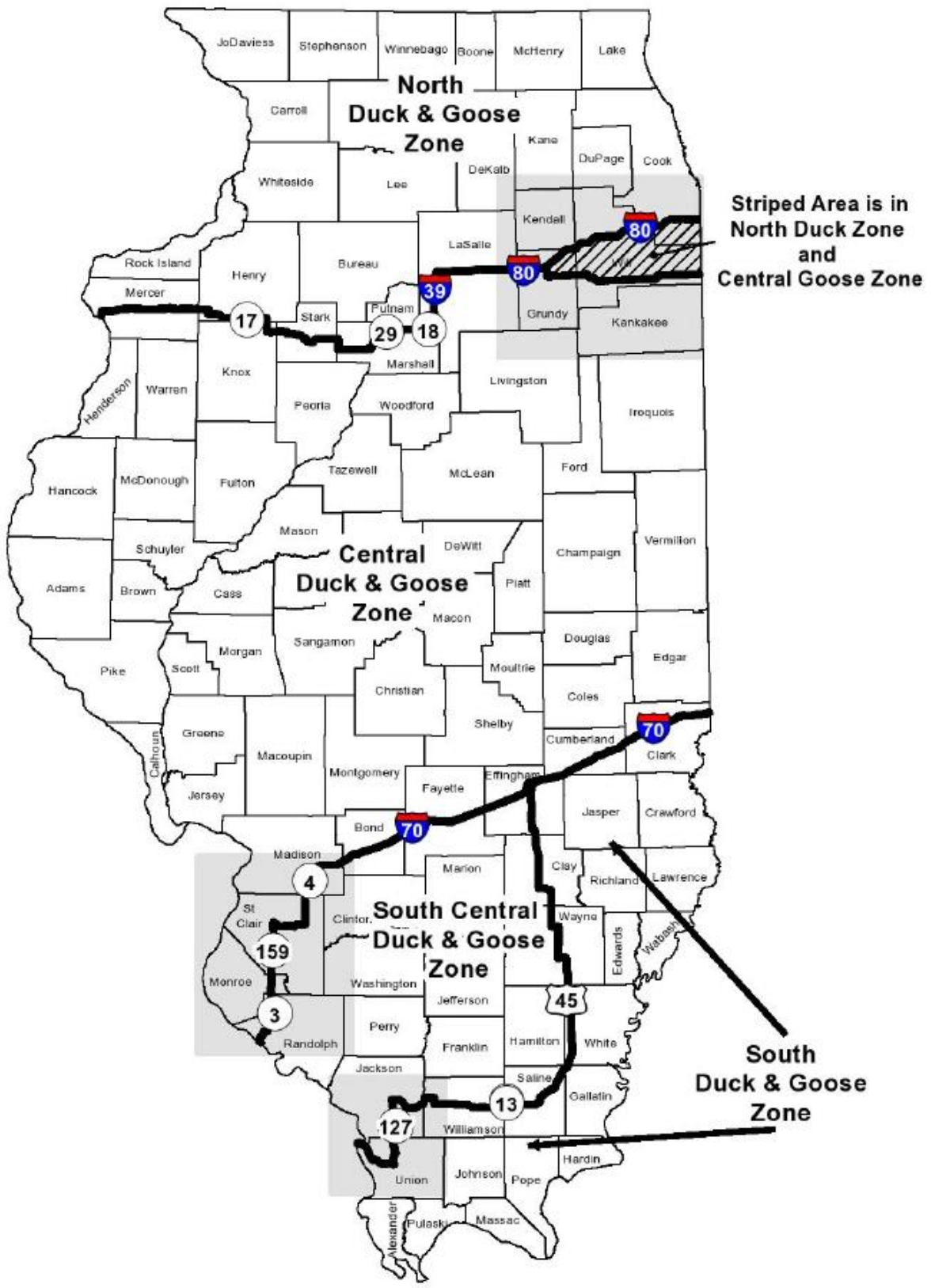


Table F-1. Summary of Illinois Migratory Waterfowl Stamps purchased, hunter activity, and waterfowl harvest in Illinois from 1981 through 2016 hunting seasons.

Season (Year)	Stamps Purchased	Estimated Hunters	Estimated Days Hunted	Estimated Waterfowl Harvested ^a
1981	61,929	63,652	874,730	413,264
1982	57,691	58,766	795,807	392,897
1983	56,162	58,240	815,523	475,601
1984	55,250	56,533	748,390	420,357
1985	55,670	56,899	699,113	392,253
1986	59,734	61,876	887,446	467,164
1987	58,803 (5,550) ^b	60,371	814,918	354,194
1988 ^c	53,498 (4,350)	53,450	644,056	264,316
1989 ^c	55,693 (3,570)	55,709	749,033	322,359
1990 ^c	55,009 (2,390)	55,152	708,391	270,796
1991 ^c	58,421 (2,130)	59,038	855,279	406,854
1992	51,261 (1,395)	51,274	714,550	292,535
1993	50,976 (995)	51,340	682,498	326,446
1994	57,543 (955)	53,226	816,185	332,803
1995	60,564 (665)	55,454	884,328	498,854
1996	62,417 (545)	56,956	836,793	376,248
1997	59,961 (480)	54,715	881,030	401,236
1998	54,550 (450)	50,288	795,561	471,072
1999	63,782 (350)	58,003	1,472,301	783,195
2000	62,701 (330)	56,954	1,115,076	708,092
2001	63,745 (300)	59,029	1,337,297	695,790
2002	61,345 (1,520)	53,428	1,054,047	504,616
2003	61,991 (260)	57,985	1,251,974	650,906
2004	60,264	54,803	1,083,910	494,775
2005	55,734	48,772	868,299	526,221
2006	63,965	58,302	1,194,801	700,571
2007	66,765	57,454	1,150,304	678,623
2008	69,590	59,379	1,175,243	660,306
2009	68,549	59,987	1,222,980	613,335
2010	64,828	50,936	985,075	513,882
2011	66,581	52,660	1,147,037	577,654
2012	64,896	50,740	1,155,346	580,557
2013	66,394	49,170	1,052,728	605,720
2014	70,391	50,698	982,193	550,946
2015	58,247	40,104	795,289	488,321
2016	54,920	41,242	870,721	490,463

^a Teal, ducks, coots, and geese combined, and including September Teal and Canada goose seasons and youth hunt. The U.S. Fish and Wildlife Service suspended the September Teal season in 1988 through 1991.

^b Stamps purchased for commercial art purposes. These stamps were not included in the numbers to the left.

^c Estimates of waterfowl hunters and days afield for these years reduced to 92.48% - 96.48% of the original estimates. Estimates of waterfowl (Teal, ducks, Coots, and geese combined) harvested reduced to 94.54% - 97.74% of original estimates. See Anderson and Williamson (1994) for explanation.

Table F-2. The percentage of regular season waterfowl hunters who hunted exclusively ducks, exclusively geese, or both ducks and geese in Illinois from 1981 through 2016 seasons.

Season (Year)	Hunted Ducks Only	Hunted Geese Only	Hunted Both Ducks and Geese	Duck Hunters	Goose Hunters
1981	63.0%	14.1%	22.9%	85.9%	37.0%
1982	59.1%	11.1%	29.8%	88.9%	40.9%
1983	55.0%	13.4%	31.6%	86.6%	45.0%
1984	60.3%	12.1%	27.6%	87.9%	39.7%
1985	61.1%	9.7%	29.2%	90.3%	38.9%
1986	51.0%	13.4%	35.6%	86.6%	49.0%
1987	46.6%	14.3%	39.1%	85.7%	53.4%
1988	35.5%	19.1%	45.4%	80.9%	64.5%
1989	29.2%	21.3%	49.5%	78.7%	70.8%
1990	26.7%	29.7%	43.6%	70.3%	73.4%
1991	26.0%	27.3%	46.7%	72.7%	74.0%
1992	31.3%	23.4%	45.3%	76.6%	68.7%
1993	30.9%	20.2%	48.9%	79.8%	69.1%
1994	30.3%	16.5%	53.2%	83.5%	69.7%
1995	33.2%	23.4%	43.4%	76.6%	66.8%
1996	35.8%	22.3%	41.9%	77.7%	64.2%
1997	38.8%	22.2%	39.0%	77.8%	61.2%
1998	47.6%	17.0%	35.4%	83.0%	52.4%
1999	27.2%	10.6%	62.2%	89.4%	72.8%
2000	34.0%	23.1%	42.9%	76.9%	66.0%
2001	33.0%	9.9%	57.1%	90.1%	67.0%
2002	33.8%	10.2%	56.0%	89.8%	66.2%
2003	32.3%	12.6%	55.1%	87.4%	67.7%
2004	32.1%	10.5%	57.4%	89.5%	67.9%
2005	37.2%	11.5%	51.3%	88.5%	62.8%
2006	28.8%	13.5%	57.7%	86.5%	71.2%
2007	27.7%	12.2%	60.1%	87.8%	72.3%
2008	25.9%	10.6%	63.5%	89.4% ^a	74.1% ^a
2009	27.5%	8.4%	64.1%	91.6% ^a	72.5% ^a
2010	25.0%	13.1%	61.9%	86.9% ^a	75.0% ^a
2011	20.7%	18.3%	61.0%	81.7%	79.3%
2012	29.4%	9.8%	60.8%	90.2%	70.6%
2013	30.2%	9.8%	60.0%	90.2%	69.8%
2014	30.8%	10.9%	58.3%	89.1%	69.2%
2015	28.3%	8.6%	63.0%	91.3%	71.6%
2016	29.3%	8.2%	62.5%	91.8%	70.7%

^a 2008-2010 numbers changed to reflect responses in the sample.

Table F-3. Summary of Teal harvest and hunter activity during September Teal season (Illinois, 1981-2016).

Season (Year)	Estimated Hunters	Estimated Days Hunted	Estimated Teal Harvest
1981	14,802	38,586	22,946
1982	14,863	41,856	28,785
1983	13,295	39,475	29,355
1984	14,158	39,481	32,730
1985	13,852	36,521	29,260
1986	15,449	40,241	30,375
1987	12,297	32,582	23,193
1988 ^a	-----	-----	-----
1989 ^a	-----	-----	-----
1990 ^a	-----	-----	-----
1991 ^a	-----	-----	-----
1992	7,696	18,265	12,069
1993	6,474	16,722	8,562
1994	8,062	20,341	12,436
1995	9,123	24,865	19,731
1996	8,964	22,825	11,565
1997	11,819	32,179	22,005
1998	10,307	33,049	21,270
1999	20,036	74,170	55,199
2000	14,733	52,229	38,597
2001	17,222	61,199	36,013
2002	10,171	29,381	12,542
2003	10,522	34,505	20,453
2004	8,097	23,928	8,463
2005	6,686	17,708	10,953
2006	12,378	43,223	28,016
2007	13,478	48,115	29,800
2008	14,652	52,365	19,981
2009	15,436	55,139	19,222 ± 7,372
2010	13,038	49,038	20,127 ± 9,322
2011	11,221	42,811	21,227 ± 7,993
2012	10,944	46,719	31,942 ± 11,740
2013	10,378	37,431	21,967 ± 7,169
2014	11,282	42,635	29,058 ± 10,909
2015	9,615	37,574	28,031 ± 9,911
2016	8,969	38,610	25,346 ± 9,296

^aThe September Teal season was suspended by the U.S. Fish and Wildlife Service during these years.

Table F-4. Rates of Teal harvest and hunter activity during September Teal season (Illinois, 1981-2016).

Season (Year)	Season Length/ Bag Limit	Days Hunted Per Hunter	Teal Harvest Per Hunter	
			Per Day	Per Season
1981	9/4	2.61	0.59	1.55
1982	9/4	2.82	0.69	1.94
1983	9/4	2.97	0.74	2.21
1984	9/4	2.79	0.83	2.31
1985	9/4	2.64	0.80	2.11
1986	9/4	2.60	0.75	1.97
1987	9/4	2.65	0.71	1.89
1988 ^a	----	----	----	----
1989 ^a	----	----	----	----
1990 ^a	----	----	----	----
1991 ^a	----	----	----	----
1992	9/4	2.37	0.66	1.57
1993	9/4	2.58	0.51	1.32
1994	9/4	2.52	0.61	1.54
1995	9/4	2.73	0.79	2.16
1996	9/4	2.55	0.51	1.29
1997	9/4	2.72	0.68	1.86
1998	16/4	3.21	0.64	2.06
1999	16/4	3.70	0.74	2.75
2000	16/4	3.55	0.74	2.62
2001	16/4	3.55	0.59	2.09
2002	9/4	2.89	0.43	1.23
2003	16/4	3.28	0.59	1.94
2004	9/4	2.96	0.35	1.05
2005	9/4	2.65	0.62	1.64
2006	16/4	3.49	0.65	2.26
2007	16/4	3.60	0.62	2.21
2008	16/4	3.57	0.38	1.36
2009	16/4	3.57	0.35	1.25
2010	16/4	3.76	0.41	1.54
2011	16/4	3.82	0.50	1.90
2012	16/4	4.27	0.68	2.92
2013	16/6	3.61	0.59	2.12
2014	16/6	3.78	0.68	2.58
2015	16/6	3.91	0.75	2.92
2016	16/6	4.31	0.66	2.83

^a September Teal season was suspended by the U.S. Fish and Wildlife Service during these years.

Table F-5. Waterfowl harvest and hunter activity during Youth Waterfowl Hunting Days, 1996-2016.

Season ^a (Year)	Adult Participation	Youth Participation	Days Hunting	Mean Youths/ Hunting Party	Total Ducks	Ducks/ Youth/Day	Total Coots	Coots/ Youth/ Day	Total Geese	Geese/ Youth/ Day
1996	2,749	4,353	4,353	1.58	3,171	0.73	230	0.05	---- ^a	---
1997	3,163	4,322	4,322	1.37	3,451	0.80	387	0.09	---- ^a	---
1998	3,343	5,142	5,142	1.54	4,159	0.81	208	0.04	289	0.06
1999	5,505	8,113	8,113	1.47	5,835	0.72	629	0.08	571	0.07
2000	6,815	10,107	14,079	1.48	8,388	0.60	38	<0.01	882	0.06
2001	9,140	15,148	22,525	1.67	11,727	0.52	480	0.02	971	0.04
2002	8,498	13,325	19,548	1.57	9,085	0.46	271	0.01	887	0.05
2003	7,415	11,419	17,985	1.54	9,184	0.51	178	0.01	1,116	0.06
2004	5,603	7,891	12,997	1.41	7,477	0.58	48	<0.01	561	0.04
2005	4,540	6,489	10,268	1.58	5,644	0.55	583	0.06	965	0.09
2006	5,447	8,024	11,903	1.48	9,863	0.83	133	0.01	732	0.06
2007	6,259	8,981	14,356	1.60	9,141	0.64	850	0.06	1,701	0.12
2008	6,402	9,878	14,799	1.50	10,380	0.70	241	0.02	1,466	0.10
2009	7,073	9,772	15,922	1.63	11,229	0.71	599	0.04	2,396	0.15
2010	5,471	7,452	11,828	1.59	9,156	0.77	419	0.04	1,420	0.12
2011	6,325	8,642	14,059	1.63	9,569	0.68	1,333	0.09	1,318	0.09
2012	7,825	10,001	52,448 ^b	1.27	8,147 ^c	0.41	503 ^c	0.03	1,064 ^c	0.05
2013	8,438	8,639	19,136	1.02	12,715	1.33	359	0.04	2,065	0.23
2014	6,405	8,572	13,798	1.33	9,004	1.30	192	0.03	929	0.14
2015	4,718	6,291	9,873	1.33	8,171	1.65	117	0.02	571	0.12
2016	4,398	5,921	8,553	1.34	6,731	1.57	139	0.03	927	0.23

1996 – 1999 were one day seasons and 2000 – present were 2 day seasons.

^a Could not hunt geese during the Youth Waterfowl Hunting Day in 1996 and 1997.

^b Results include youth hunts during the regular season and the 2 day Youth Waterfowl Hunting Days.

^c Results are a 2 day estimate based on the mean number harvested by youth from the entire season

Table F-6. Summary of duck and coot harvest and hunter activity during the regular duck season (Illinois 1981-2016).

Season (Year)	Hunters	Days Afield	Number of Ducks			Total	Coots
			Mallards	Wood Ducks	Other Ducks ^b		
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 ^a	43,233	381,985	119,149	23,743	42,836	185,728	1,936
1989 ^a	43,841	407,478	133,128	28,065	63,073	224,266	2,049
1990 ^a	38,759	350,119	112,370	33,253	51,562	197,185	2,287
1991 ^a	42,911	393,247	177,221	49,556	80,793	307,570	1,101
1992	39,272	362,275	124,112	34,280	58,035	216,427	3,275
1993	40,941	366,656	134,334	39,906	43,360	217,600	1,445
1994	44,447	475,264	137,263	44,683	64,998 (3,760)	246,944	3,880
1995	42,499	482,620	230,505	47,155	99,632 (5,393)	377,292	3,386
1996	44,219	460,517	163,311	38,783	82,431 (4,348)	284,525	3,286
1997	42,587	514,934	145,533	44,678	100,950 (5,800)	291,161	3,935
1998	41,755	517,372	200,030	57,393	129,439 (3,948)	386,862	2,920
1999	51,850	860,368	311,325	69,930	181,650 (4,977)	562,905	3,654
2000	43,810	621,542	271,903	58,604	166,834 (4,231)	497,341	2,206
2001	53,194	797,884	305,180	61,515	167,883 (1,968)	534,578	2,904
2002	47,964	642,542	197,392	46,238	106,213 (851)	349,843	1,743
2003	50,658	738,914	285,011	48,023	153,165 (1,789)	486,199	1,693
2004	49,046	652,960	207,982	44,725	116,951 (2,100)	369,658	1,607
2005	43,185	539,672	240,897	37,942	133,509 (3,918)	412,348	2,186
2006	50,437	658,881	308,000	38,366	161,098 (5,927)	507,464	3,065
2007	49,114	600,614	265,369	34,628	164,369 (5,925)	464,366	3,771
2008	50,683	600,574	247,895	43,051	156,849	447,795	2,266
2009	49,648	626,832	228,211	41,549	129,795	399,555 ± 69,698	3,904 ± 3,342
2010	43,450	499,758	193,758	39,611	121,375	354,859 ± 60,571	1,770 ± 2,435
2011	46,619	632,712	222,405	54,294	150,786	427,484 ± 66,551	4,327 ± 2,663
2012	43,444	630,233	244,988	47,623	185,776	478,387 ± 50,294	4,133 ± 3,536
2013	43,653	563,961	225,873	49,001	155,306	430,179 ± 29,431	2,143 ± 4,031
2014	44,019	525,114	197,997	48,216	138,615 ^b	384,828 ± 39,741	4,681 ± 3,311
2015	36,499	496,656	166,506	43,655	119,619	329,780 ± 34,835	3,185 ± 1,960
2016	34,386	459,029	154,698	47,986	130,722 ^b	333,406 ± 37,408	4,424 ± 1,338

^a Estimates of duck hunters, days afield, ducks and coots harvested for these years have been reduced to 92.48% - 96.48% of the original estimates. See Anderson and Williamson (1994) for explanation.

^b Numbers in parentheses represent harvest of Canvasback.

Table F-7. Rates of duck harvest and hunter activity during the regular duck season (Illinois 1981-2016).

Season (Year)	Season Length/ Bag Limit ^b	Days Afield Per Hunter	Duck Harvest Per Hunter ^a	
			Per Day	Per Season
1981	50/10(4,2)	12.85	0.48	6.17
1982	50/10(4,2)	12.38	0.51	6.26
1983	50/10(4,2)	12.91	0.62	8.00
1984	50/10(4,2)	12.20	0.59	7.14
1985	40/5(3,1)	10.84	0.57	6.17
1986	40/5(3,1)	11.91	0.59	7.08
1987	40/5(3,1)	10.80	0.52	5.59
1988	30/3(2,1)	8.84	0.49	4.30
1989	30/3(2,1)	9.29	0.55	5.12
1990	30/3(2,1)	9.03	0.54	4.90
1991	30/3(2,1)	9.16	0.72	6.57
1992	30/3(2,1)	9.22	0.57	5.22
1993	30/3(2,1)	8.96	0.58	5.21
1994	40/3(2,1)	10.96	0.51	5.47
1995	50/5(4,1)	11.36	0.74	8.40
1996	50/5(4,1)	10.41	0.58	6.03
1997	60/6(4,2)	12.09	0.57	6.84
1998	60/6(4,2)	12.39	0.75	9.27
1999	60/6(4,2)	16.59	0.65	10.86
2000	60/6(4,2)	14.19	0.80	11.36
2001	60/6(4,2)	15.00	0.67	10.05
2002	60/6(4,1)	13.40	0.54	7.29
2003	60/6(4,1)	14.59	0.66	9.60
2004	60/6(4,2)	13.31	0.57	7.54
2005	60/6(4,2)	12.50	0.76	9.55
2006	60/6(4,2)	13.06	0.77	10.06
2007	60/6(4,2)	12.23	0.77	9.45
2008	60/6(4,2)	11.85	0.75	8.84
2009	60/6(4,2)	12.63	0.64	8.05
2010	60/6(4,2)	11.50	0.71	8.17
2011	60/6(4,2)	13.57	0.68	9.17
2012	60/6(4,2)	14.51	0.76	11.01
2013	60/6(4,2)	12.92	0.76	9.85
2014	60/6(4,2)	11.93	0.73	8.74
2015	60/6(4,2)	13.61	0.66	9.01
2016	60/6(4,2)	13.35	0.73	9.70

^a Excludes ducks harvested coincidentally while goose hunting.

^b The Point System was used in 1981-1987 (Havera 1999: 17-18). A maximum of 10 ducks (4 mallards, 2 hens) was allowed in 1981-1984, and a maximum of 5 ducks (3 Mallards, 1 hen) was allowed in 1985-1987.

Table F-8. Number of hunters who participated in the early September Canada goose season (Illinois 1997-2016).

	Year	Statewide	Waterfowl Zone				Unknown
			North	Central	South Central	South	
Hunters	1997	11,765	5,577	5,768	-----	-----	420
	1998	11,981	4,837	5,915	-----	677	552
	1999	16,945	6,005	9,869	-----	693	378
	2000	13,289	5,410	6,908	-----	971	0
	2001	20,359	7,318	10,807	-----	2,085	149
	2002	12,459	4,517	6,665	-----	1,135	142
	2003	14,973	5,532	7,761	-----	1,348	332
	2004	11,170	4,250	6,220	-----	984	0
	2005	9,448	3,949	5,034	-----	1,085	0
	2006	12,609	4,848	6,607	-----	1,154	0
	2007	12,788	4,723	6,413	-----	1,652	0
	2008	13,157	4,934	6,690	-----	1,533	0
	2009	15,102	5,232	8,089	-----	1,781	0
	2010	11,015	3,918	5,813	-----	1,285	0
	2011	14,214	4,625	7,889	-----	1,700	0
	2012	11,192 ^a	4,601	5,928	1,161	249	0
	2013	10,865 ^a	3,646	6,076	681	462	0
	2014	12,147 ^a	4,153	6,679	934	554	0
	2015	10,659 ^a	3,226	6,104	1,075	443	0
	2016	9,973 ^a	3,324	5,125	1,316	381	0

^a Less than the sum of hunters in individual zones because some hunters hunted more than 1 zone.

Table F-9. Number of Canada geese harvested during the early September Canada goose season (Illinois 1997-2016).

	Year	Statewide	North	Central	South Central	South	Unknown
Canada Geese	1997	11,443	7,621	3,774	-----	-----	48
	1998	7,852	4,184	3,046	-----	384	238
	1999	20,223	9,124	10,491	-----	491	117
	2000	15,897	6,191	8,774	-----	932	0
	2001	26,021	10,979	13,170	-----	1,580	290
	2002	21,534	8,971	11,130	-----	1,433	0
	2003	15,267	5,907	7,103	-----	2,221	36
	2004	13,587	6,319	5,915	-----	767	0
	2005	9,896	4,862	4,047	-----	987	0
	2006	14,578	6,771	6,717	-----	1,090	0
	2007	16,207	6,057	8,645	-----	1,505	0
	2008	17,419	7,343	8,951	-----	1,125	0
	2009	16,212	6,101	8,336	-----	1,774	0
	2010	17,115	7,967	7,859	-----	1,289	0
	2011	18,790	6,339	10,874	-----	1,577	0
	2012	18,028	8,557	7,664	1,599	228	0
	2013	15,644	5,165	9,271	523	685	0
	2014	19,089	7,527	9,015	1,770	777	0
	2015	15,693	4,233	8,587	2,147	726	0
	2016	17,711	7,895	7,780	1,539	497	0

Table F-10. Number of Days Afield during the early September Canada goose season (Illinois 1997-2016).

	Year	Statewide	North	Central	South Central	South	Unknown
Days Afield	1997	34,988	17,991	15,890	-----	-----	1,107
	1998	37,322	15,891	18,247	-----	1,880	1,304
	1999	64,881	21,795	39,768	-----	2,625	693
	2000	47,831	17,396	27,078	-----	3,357	0
	2001	73,587	26,359	40,208	-----	6,318	702
	2002	39,485	14,303	21,049	-----	4,092	41
	2003	51,083	18,799	26,532	-----	5,422	330
	2004	37,941	14,279	19,670	-----	2,592	0
	2005	29,143	12,184	14,352	-----	2,607	0
	2006	42,444	16,735	22,621	-----	3,088	0
	2007	41,549	14,169	22,080	-----	5,300	0
	2008	45,637	17,305	23,174	-----	5,158	0
	2009	51,318	19,591	26,048	-----	5,678	0
	2010	39,019	15,929	19,236	-----	3,854	0
	2011	49,306	16,832	27,441	-----	5,033	0
	2012	39,589	17,079	18,613	3,524	373	0
	2013	40,955	12,323	24,816	2,042	1,774	0
	2014	44,919	16,300	23,844	3,288	1,488	0
	2015	38,744	13,505	21,191	2,404	1,645	0
	2016	41,935	14,925	20,950	4,883	1,177	0

Table F-11. Summary of goose harvest and hunter activity during the regular goose season (Illinois 1981-2016).

Season (Year)	Hunters	Days Afield	Number of Geese		
			Canada Geese	Other Geese	Total
1981	23,610	132,610	44,302 (6,312 ^a)	3,082 (1,719 ^b)	47,384 (8,031 ^a)
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 ^b	34,456	251,176	72,550 (3,871)	1,832 (350)	74,382 (4,221)
1989 ^b	39,459	329,369	91,379 (2,988)	1,715 (182)	93,094 (3,170)
1990 ^b	40,459	346,036	67,127 (1,515)	1,319 (97)	68,446 (1,612)
1991 ^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 (2,527)	4,939 (114)	70,803 (2,641)
1997	33,498	295,107	61,282 (4,772)	7,572 (438)	68,854 (5,210)
1998	26,343	202,676	43,222 (2,463)	4,290 (305)	47,512 (2,968)
1999	42,246	464,769	119,611 (1,846)	14,568 (152)	134,179 (1,998)
2000	37,593	383,367	128,387 (1,406)	16,356 (0)	144,743 (1,406)
2001	39,570	382,102	64,907 (1,761)	18,189 (263)	83,096 (2,024)
2002	35,352	323,091	89,297 (3,259)	19,414 (1,433)	108,711 (4,692)
2003	39,275	409,487	83,207 (1,526)	10,458 ^c (342)	93,665 ^c (1,868)
2004	37,189	345,279	81,859 (3,418)	8,231 (349)	90,090 (3,767)
2005	30,614	271,708	74,293 (1,653)	9,353 (62)	83,646 (1,715)
2006	41,521	438,350	122,294 (1,338)	14,426 (869)	136,720 (2,207)
2007	43,046	445,670	141,205 (404)	11,582 (55)	152,787 (459)
2008	44,404	461,868	142,806 (590)	17,956 (0)	160,762 (590)
2009	44,601	473,769	142,836 (585)	17,382 (355)	160,218 ± 36,569 (940)
2010	36,803	385,432	99,422 (534)	9,594 (46)	109,016 ± 22,523 (580)
2011	36,996	411,380	75,061(618)	19,862 (33)	94,923 ± 22,387 (651)
2012	34,034	386,356	72,682 (0)	19,597 (0)	92,280 ± 19,570 (0)
2013	33,809	391,246	104,887 (0)	15,859 (0)	120,746 ± 12,775 (0)
2014	34,226	369,179	87,672 (50)	20,313 (0)	107,985 ± 15,517 (50)
2015	31,280	330,482	75,198	27,576	102,774 ± 17,608 (0)
2016	26,490	312,725	77,216 (0)	24,563 (0)	101,779 (0) ± 18,215

^a Number of geese harvested while duck hunting.

^b The estimates of goose hunters and days hunted for these years have been reduced to 92.48%-96.48% of the original estimates. The estimates for geese harvested have not been reduced (Anderson and Williamson 1994).

^c Reduced by 23,151 from estimate given in 2002 report to exclude Conservation Order snow goose harvest.

Table F-12. Summary of the number of ducks and geese crippled (Illinois 1981-2016 seasons).

Season (Year)	Estimated Ducks		Estimated Geese	
	Total	Per 100 Bagged	Total	Per 100 Bagged
1981	104,216	30.8	12,573	26.5
1982	82,287	25.2	5,868	18.9
1983	96,907	24.0	7,627	23.6
1984	84,665	23.8	5,711	23.0
1985	100,191	31.6	15,918	39.5
1986	145,283	38.3	20,699	41.5
1987	98,155	34.0	18,375	48.8
1988	65,856	35.5	22,730	30.6
1989	66,150	29.5	21,696	23.3
1990 ^a	59,007	29.9	23,895	34.9
1991 ^a	74,932	24.4	27,164	28.7
1992	68,027	31.4	18,631	32.1
1993	62,250	28.6	21,067	22.3
1994	65,266	26.4	16,234	23.3
1995	86,834	23.0	18,391	19.2
1996	64,324	22.6	16,641	23.5
1997	67,979	23.3	12,490	18.1
1998	74,679	19.3	5,514	11.6
1999	95,961	17.0	12,934	9.6
2000	70,423	14.2	10,071	7.0
2001	88,019	16.5	7,148	8.6
2002	59,005	16.9	6,382	5.9
2003	77,361	15.9	12,661	10.8
2004	63,765	17.2	9,433	10.5
2005	68,121	16.5	7,666	9.2
2006	83,648	16.5	14,110	10.3
2007	77,914	16.8	16,627	10.9
2008	74,044	16.5	14,166	8.8
2009	67,718	16.9	12,245	7.6
2010	57,388	16.2	9,217	8.5
2011	64,268	15.0	6,937	7.3
2012	71,054*	14.9*	10,452*	11.3*
2013	59,064	13.7	8,847	7.3
2014	51,909	13.5	7,856	7.3
2015	47,442	14.4	7,622	7.4
2016	43,666	13.1	6,149	5.6

^a The estimates of ducks and geese crippled for these years have been reduced to 92.48% - 96.48% of the original estimates. The estimates for the number of geese crippled per 100 bagged have been similarly reduced. See Anderson and Williamson (1994) for explanation.

*Amended from 2012-13 report.

Appendix G

