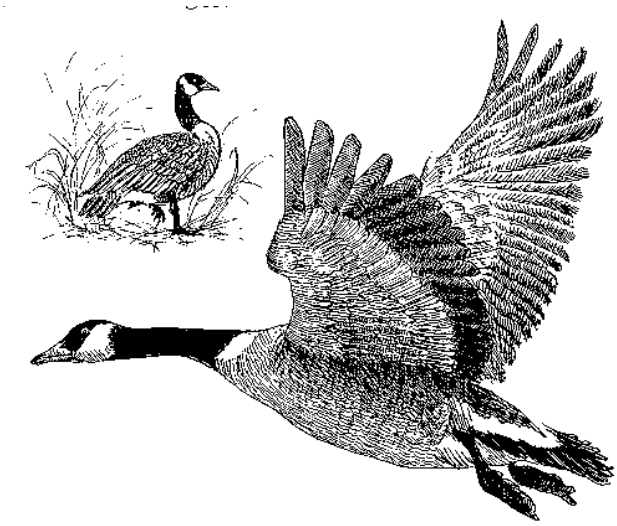
HumanDimensions
Research Program

Illinois Natural History Survey
Prairie Research Institute
University of Illinois at
Urbana-Champaign

2010-2011 Illinois Waterfowl Hunter Survey: Behavior, Attitudes, and Participation of Waterfowl Hunters



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2010-2011 ILLINOIS WATERFOWL HUNTER SURVEY: BEHAVIOR, ATTITUDES, AND PARTICIPATION OF WATERFOWL HUNTERS

JOB COMPLETION REPORT

WILDLIFE HARVEST AND
HUMAN DIMENSIONS RESEARCH PROGRAM

STATE OF ILLINOIS

PROJECT NUMBER: W-112-R-20
STUDY 101
JOB NO. 101.3

Prepared by
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Illinois Natural History Survey
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August 26, 2011

Federal Aid in Wildlife Restoration
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Illinois Department of Natural Resources

Marc Miller, Director
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Division of Wildlife Resources

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ABSTRACT

A total of 2,558 (54%) Illinois waterfowl hunters responded to the 2010-2011 Illinois Waterfowl Hunter Survey. Hunters reported spending 985,075 days afield, a decrease of 19% from the 1,222,980 days devoted during the 2009-2010 license year. Waterfowl harvest decreased 16% from 613,335 during 2009-2010 to 513,882 during 2010-2011, which is the lowest estimate since the 2002-2003 waterfowl season. Duck harvest estimates for the regular duck season were as follows: 193,758 mallards (*Anas platyrhynchos*), 39,611 wood ducks (*Aix sponsa*), and 121,375 other ducks. A total of 20,127 teal (*Anas spp.*) were harvested during the September teal season. Goose hunters harvested 99,422 Canada geese (*Branta canadensis*) during the regular Canada goose season, a 30% decrease from the 142,836 Canada geese harvested during the 2009-2010 regular goose season. Hunters harvested 17,115 Canada geese during the September Canada goose season, a 6% increase from the previous year. During the Youth Waterfowl Hunting Season, 5,471 adults took 7,452 youths waterfowl hunting, a decrease of 24% from the 9,772 youths that participated in the 2009-2010 Youth Waterfowl Hunting Season. Attitudes and opinions of hunters towards duck and goose season dates and zone boundary locations were determined.

OBJECTIVE

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

METHODS

A random sample of 5,000 waterfowl hunters was drawn from the population of Illinois State Waterfowl Stamp purchasers from 2009-2010 license year (68,549 stamps sold). Hunters were notified

on 9 September 2010 that they would receive a questionnaire at the end of the 2010-2011 hunting season. Additionally, a 1-page diary for recording their hunting activity and waterfowl harvest was included. After incomplete and duplicate addresses were removed, the sample was reduced to 4,921. On 26 January 2011, hunters were mailed a 12-page questionnaire (Appendix A), cover letter (Appendix B), and a postage-paid return envelope. We received 198 (4%) questionnaires returned as undeliverable; thus, the sample was reduced to 4,723. Hunters were sent a follow-up postcard (Appendix C) on 9 February 2011, thanking them for returning their questionnaire and also reminding non-respondents to return the completed questionnaire. Non-respondents were mailed a second questionnaire and a cover letter (Appendix D) on 25 February 2011, followed with a second postcard mailing on 16 March 2011. A third questionnaire and cover letter (Appendix E) was mailed to non-respondents on 31 March 2011. Estimates of number of hunters, days afield, and waterfowl harvested were computed following the procedures outlined by Anderson et al. (1998) with one exception: instead of parsing data by whether respondents purchased a waterfowl stamp, we analyzed by whether respondents indicated they hunted in Illinois during this license year. We did not incorporate this adjustment when calculating the multiplier (see Anderson 1986). Coded data were entered and analyzed using SPSS 19.0 (SPSS Inc. 2010). Confidence intervals are presented when appropriate.

SEASON LENGTHS AND BAG LIMITS

The early (September) teal (*Anas spp.*) season remain unchanged from 2009 to 2010; hunters could hunt for 16 days and could harvest 4 teal a day. Additionally, the early (September) Canada goose (*Branta canadensis*) season remain unchanged from the 2009 season; hunters could hunt for 15 days statewide and could harvest 5 geese a day, except for south zone where they could harvest 2 birds a day. Length and daily bag limit of the regular duck season remain unchanged (60-day/6-bird duck season)

from 2009, but the number of pintails that could be harvested increased from 1 bird per day in 2009 to 2 birds per day in 2010. The regular Canada goose season remained unchanged from 2009 (85-day/2-bird Canada goose season in North and Central zone, and a 66-day/2-bird in the South zone). Illinois discontinued the Canada goose harvest quota system in 2006.

RESULTS

Waterfowl Harvest and Days Afield

We received 2,558 (54.2%) questionnaires from hunters in the sample, of which 2,507 were usable surveys. Of the 2,507 usable surveys, 2,098 (83.7%) hunters that purchased an 2009-2010 state waterfowl stamp purchased a 2010-2011 stamp. Of these 2,098 hunters that purchased a 2010-2011 stamp, 1,586 (75.6%) hunters actually hunted waterfowl in Illinois during the 2010-2011 license year. The number of waterfowl hunters decreased from 59,987 during the 2009-2010 season to 50,936 during the 2010-2011 season, which is a 15.1% decrease in hunters (Table 1, Figure 1). Hunters reported spending 985,075 days afield in 2010-2011, a decrease of 19.4% from the 1,222,980 in 2009-2010. Total waterfowl harvest decreased 16.2% from 613,335 birds during 2009-2010 to 513,882 birds during 2010-2011. One-quarter (25%) of the hunters hunted ducks only, whereas 13% hunted geese only, and 62% hunted both ducks and geese (Table 2, Figure 2).

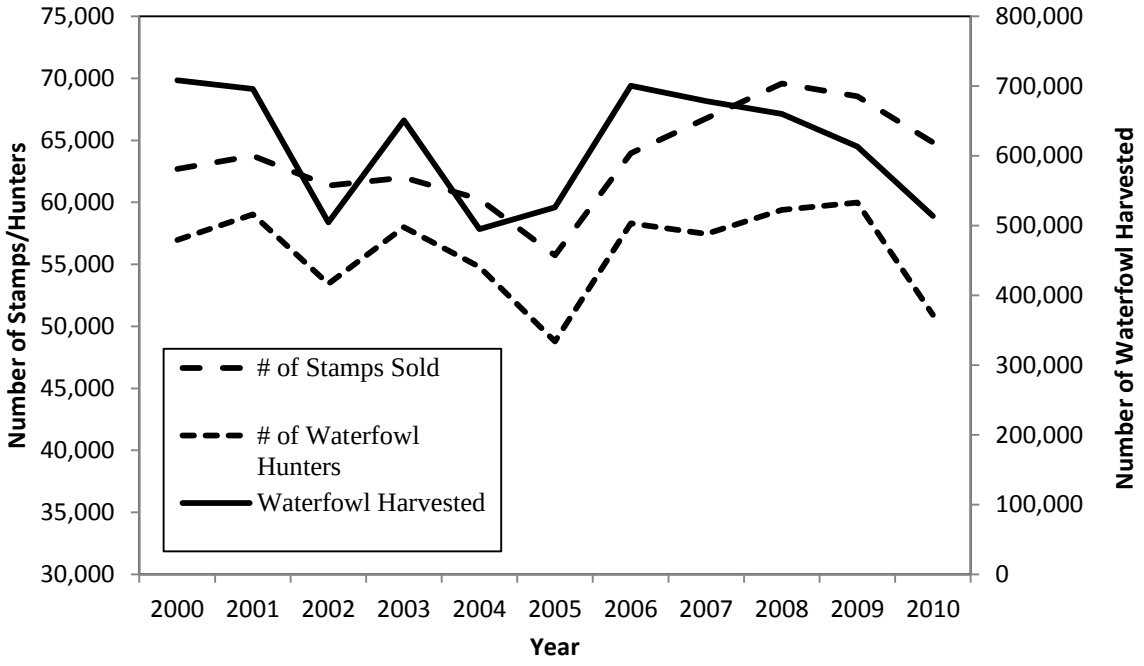


Figure 1. Stamps sold, number of hunters, and waterfowl harvested in Illinois, 2000-2010.

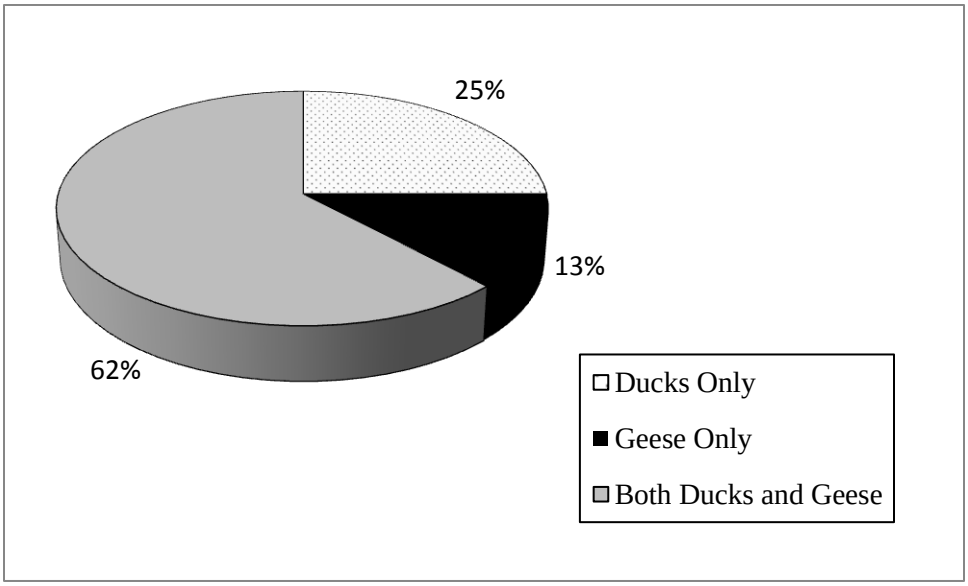


Figure 2. Percentage of hunters who hunted ducks, geese, or both during the 2010-2011 Illinois waterfowl season.

September Teal Season

The number of early (September) teal hunters decreased 15.5% from 15,436 during 2009-2010 to 13,038 during 2010-2011 (Table 3, Figure 3). Days afield decreased 11.1% from 55,139 during 2009-2010 to 49,038 during 2010-2011. Despite the decline in hunters and days afield, teal hunters harvested 20,127 ± 9,322 teal in the 2010 September season, a 4.7% increase from the 2009 harvest. The Central zone accounted for one-half (51.5%) of September teal season hunters, 50.5% of the days afield, and 55.6% of the teal harvest (Table 4). Statewide, September season teal hunters averaged 3.76 days afield in 2010, and they harvested an average of 0.41 teal per hunter per day and 1.54 teal per hunter per season (Table 5, Figure 4).

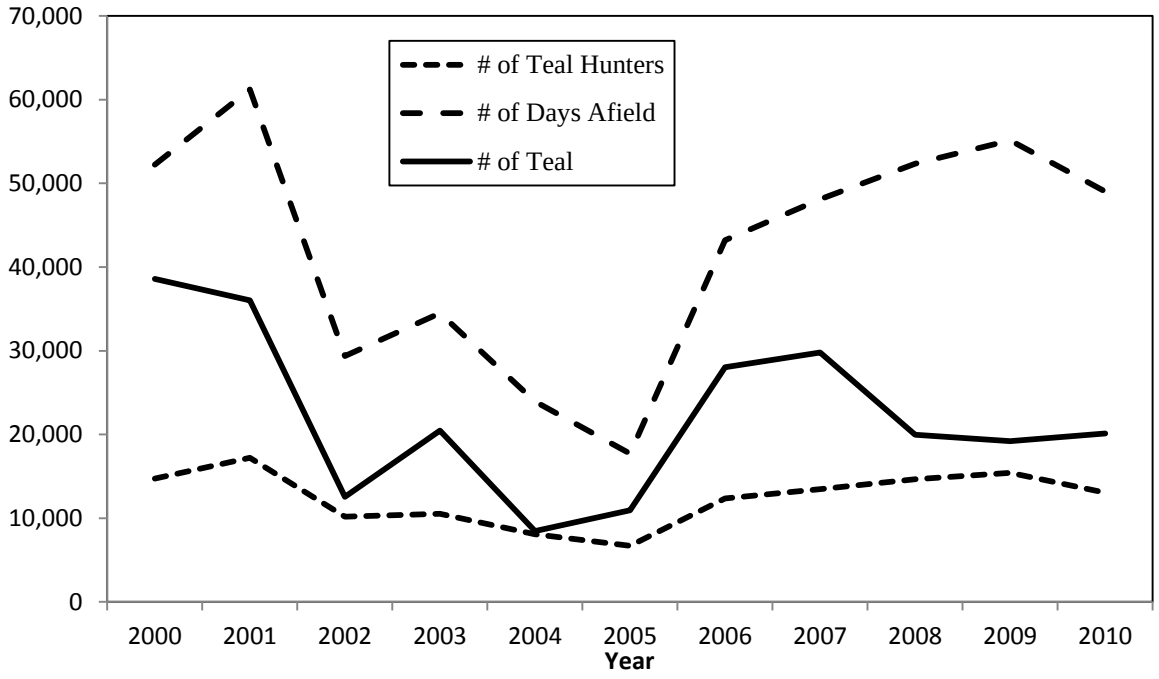


Figure 3. Teal harvest and hunter activity during the Illinois September teal season, from 2000 – 2010.

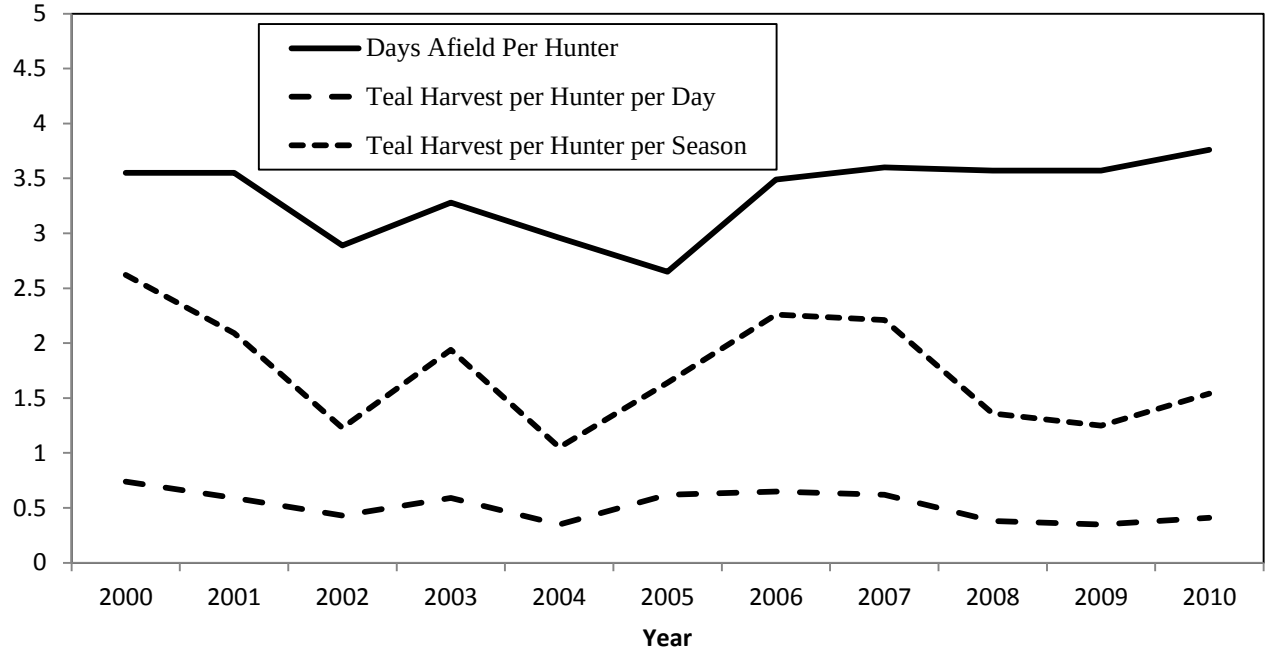


Figure 4. Rates of teal harvest and hunter activity during the Illinois September teal season, from 2000-2010.

Youth Waterfowl Hunting Season

The Youth Waterfowl Season remained unchanged from 2009 to 2010; youths under the age of 16 years of age were able to hunt ducks, geese, and coots for two days before the regular duck season opened. The number of adults and youths that participated in the 2010 youth hunt declined substantially; the number of participating adults decreased 23%, from 7,073 adults during 2009 to 5,471 adults during 2010, and the number of youths participating decreased 24% from 9,772 youths during 2009 to 7,452 youths during 2010 (Table 6). The youth waterfowl harvest (ducks, geese, and coots combined) decreased 23%, from 14,224 in 2009 to 10,995 in 2010.

Regular Duck Season

The number of duck hunters decreased by 6,198 (12.5%) from 49,648 during the 2009-2010 season to 43,450 during the 2010-2011 season (Table 7). Duck hunters spent 499,758 days afield during the 2010-2011 season, a decrease of 20% from the 626,832 days reported during the 2010-2011 season. Mallards (*Anas platyrhynchos*) comprised 55% of the total regular season duck harvest, while wood ducks (*Aix sponsa*) and other ducks accounted for 11% and 34%, respectively (Figure 5). The mallard harvest decreased by 34,453 (15%), from 228,211 during 2009-2010 to 193,758 during the 2010-2011 season (Table 7, Figure 6). This is the lowest harvest for mallards on record in the past 12 years (1998 – 2010). Wood duck harvest decreased 1,938 (5%) from 41,549 during 2009-2010 to 39,611 during 2010-2011. The harvest of other ducks decreased 8,420 (6%) from 129,795 during 2009-2010 to 121,375 during 2010-2011. Total duck harvest during 2010-2011 was 354,859, which was 11% less than the 399,555 ducks reported for 2009-2010. The statewide coot (*Fulica americana*) harvest decreased 55% from 3,904 in 2009-2010 to 1,770 in 2010-2011. The 2010-2011 duck harvest is presented by waterfowl zones in Table 8. Statewide, the duck harvest per hunter per day increased from 0.64 in 2009-2010 to 0.71 in 2010-2011, and duck harvest per hunter per season increased from 8.05 in 2009-2010 to 8.17 in 2010-2011 (Table 9).

Of duck hunters who reported hunting ≥ 1 day, 41% hunted less than 5 days (Figure 7), and 15% of duck hunters reported not harvesting any ducks. A small percentage of hunters (5%) harvested more than 60 ducks.

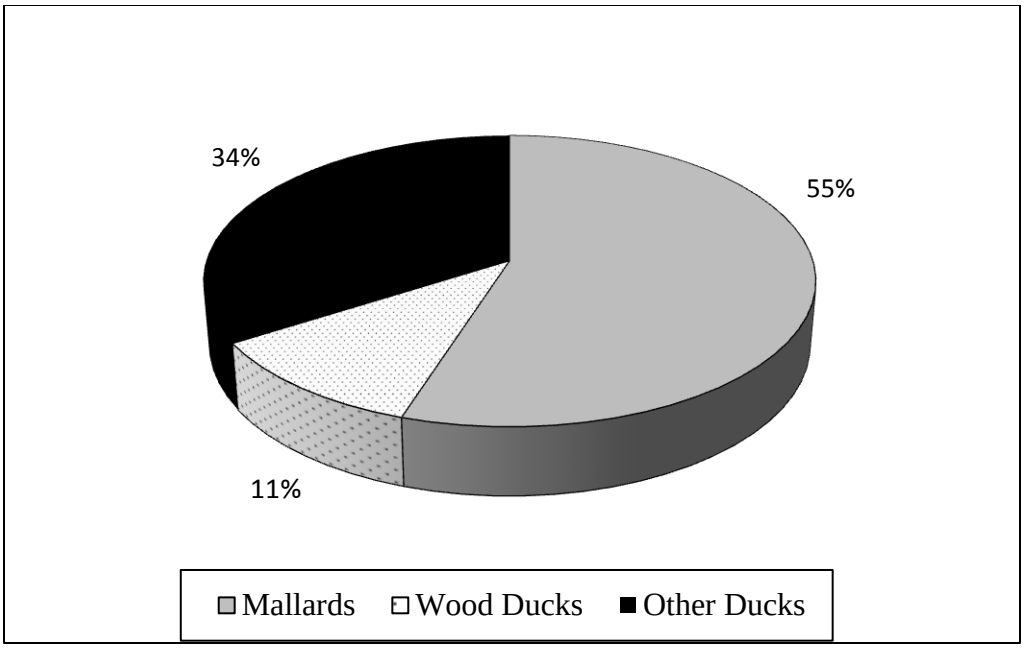


Figure 5. Proportion of Mallards, Wood Ducks, and Other Ducks harvested during the 2010-2011 regular duck season.

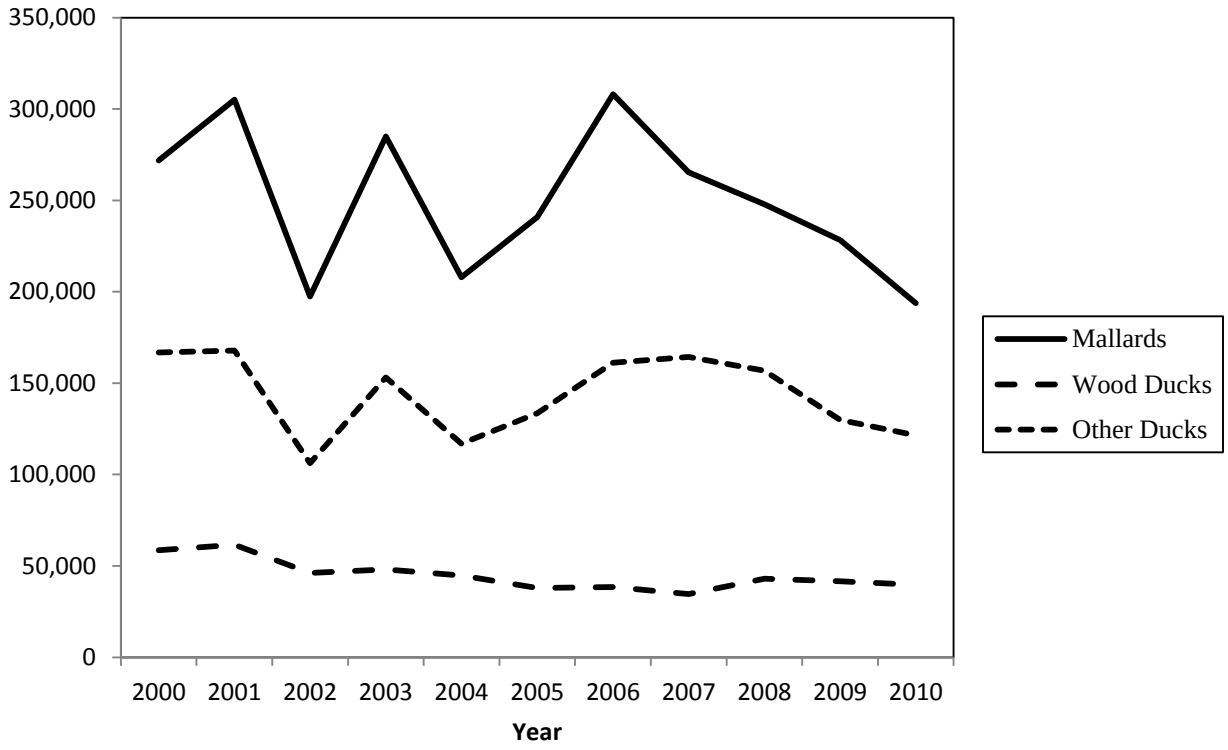


Figure 6. Illinois regular season duck harvest, 2000 – 2010.

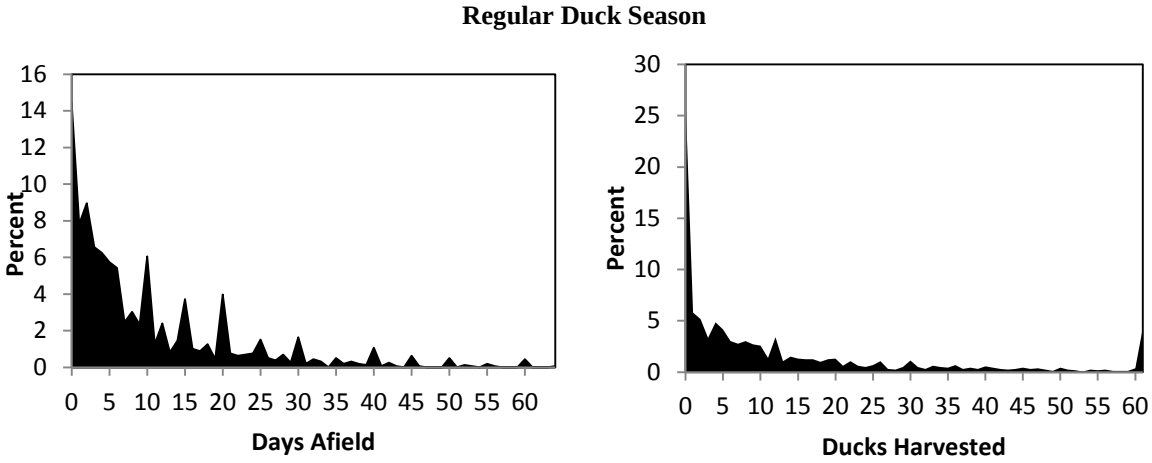


Figure 7. Distribution of days afield per hunter and ducks harvested per hunter for Illinois' 2010-2011 regular duck season.

Early September Goose Season

An estimated 11,015 hunters participated in the early (September) Canada goose season in Illinois during the 2010 season (Table 10), which was a 27% decrease in the number of hunters that participated in the 2009 season. The majority (53%) of these hunters were active in the Central zone. Hunters, regardless of the zone they hunted, collectively harvested 17,115 geese during the early season, with 7,967 (47%) being harvested in the North zone (Figure 8). The number of days afield in 2010 decreased 24% from 51,318 to 39,019, and the harvest of geese increased 6% from 16,212 to 17,115 (Figure 9).

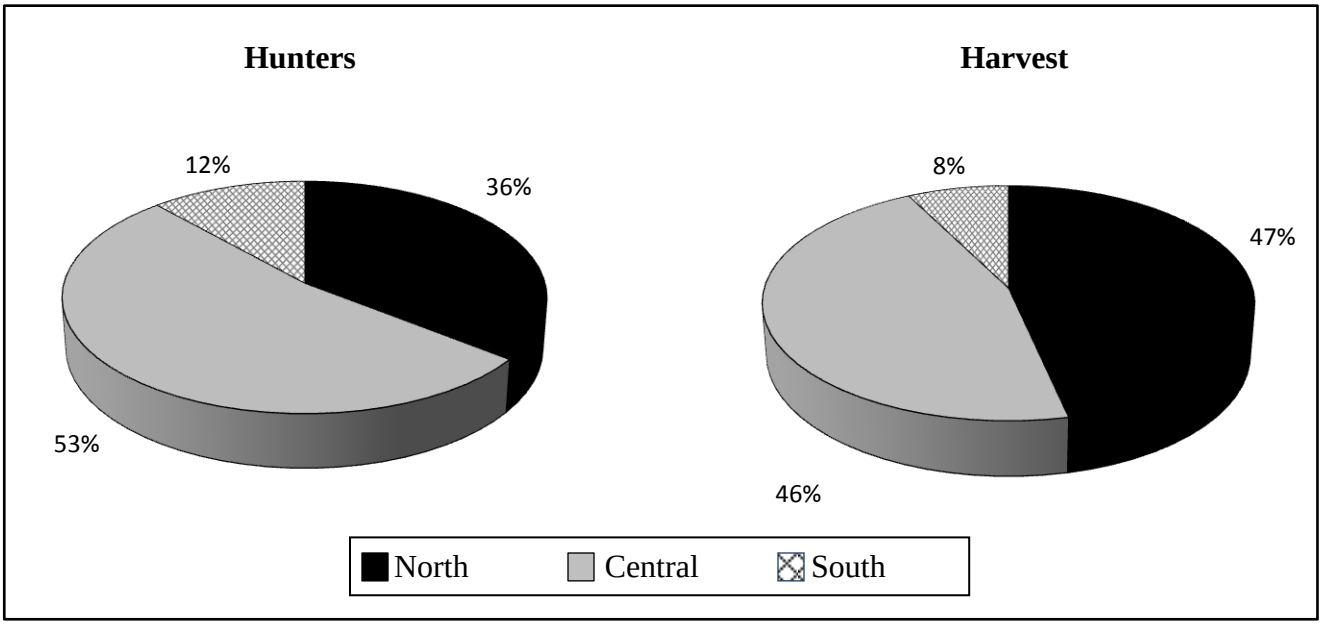


Figure 8. Early September Canada goose harvest and hunter activity by zone in Illinois during 2010.

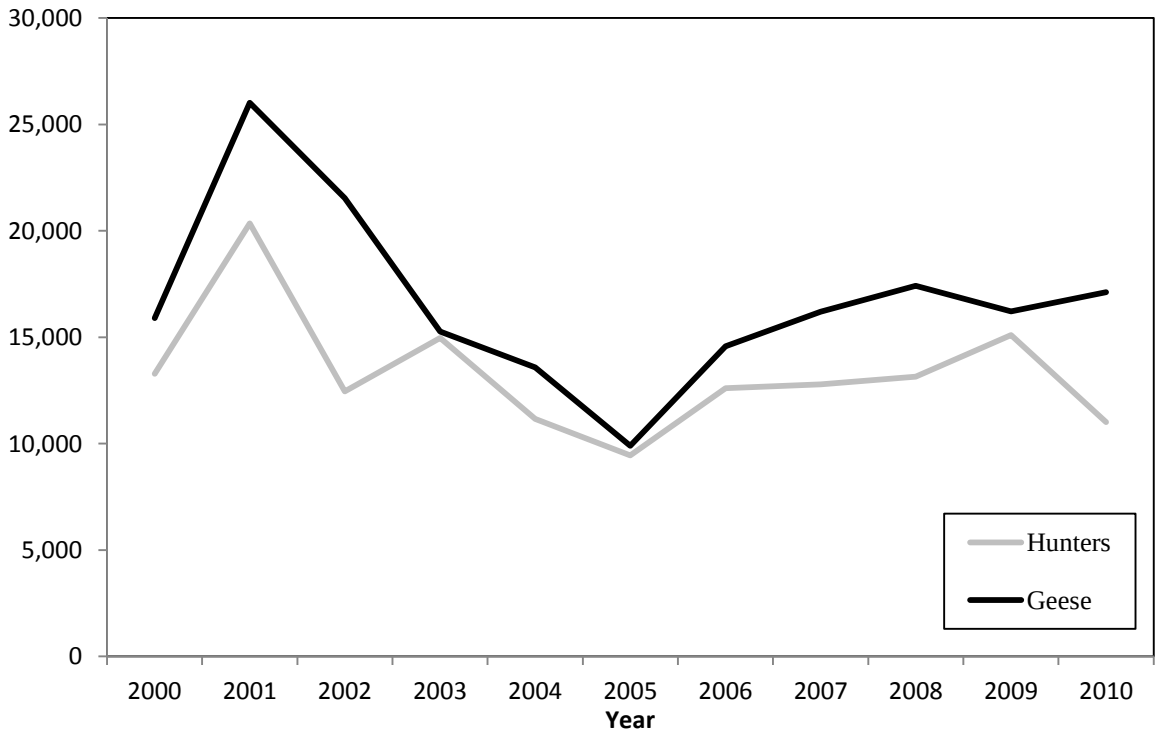


Figure 9. Early September Canada goose harvest and hunter activity, 2000-2010.

Regular Canada Goose Season

Canada goose harvest during the 2010-2011 regular goose season decreased 30% from 2009-2010 (Table 11, Figure 10). An estimated 36,803 hunters spent 385,432 days afield and harvested 99,422 Canada geese during 2010-2011. Number of goose hunters in Illinois decreased 17% from 2009-2010, and number of days afield during regular Canada goose season decreased 19%. These hunters also harvested 9,594 other geese (of which 4,989 were snow/blue geese, *Chen caerulescens*), for a total combined harvest of 109,016 geese (Figure 11). Goose hunters hunted an average of 10 days for geese; mean harvest of geese was 2.96 geese per hunter per season and 62% of goose hunters harvested < 5 geese (Figure 12).

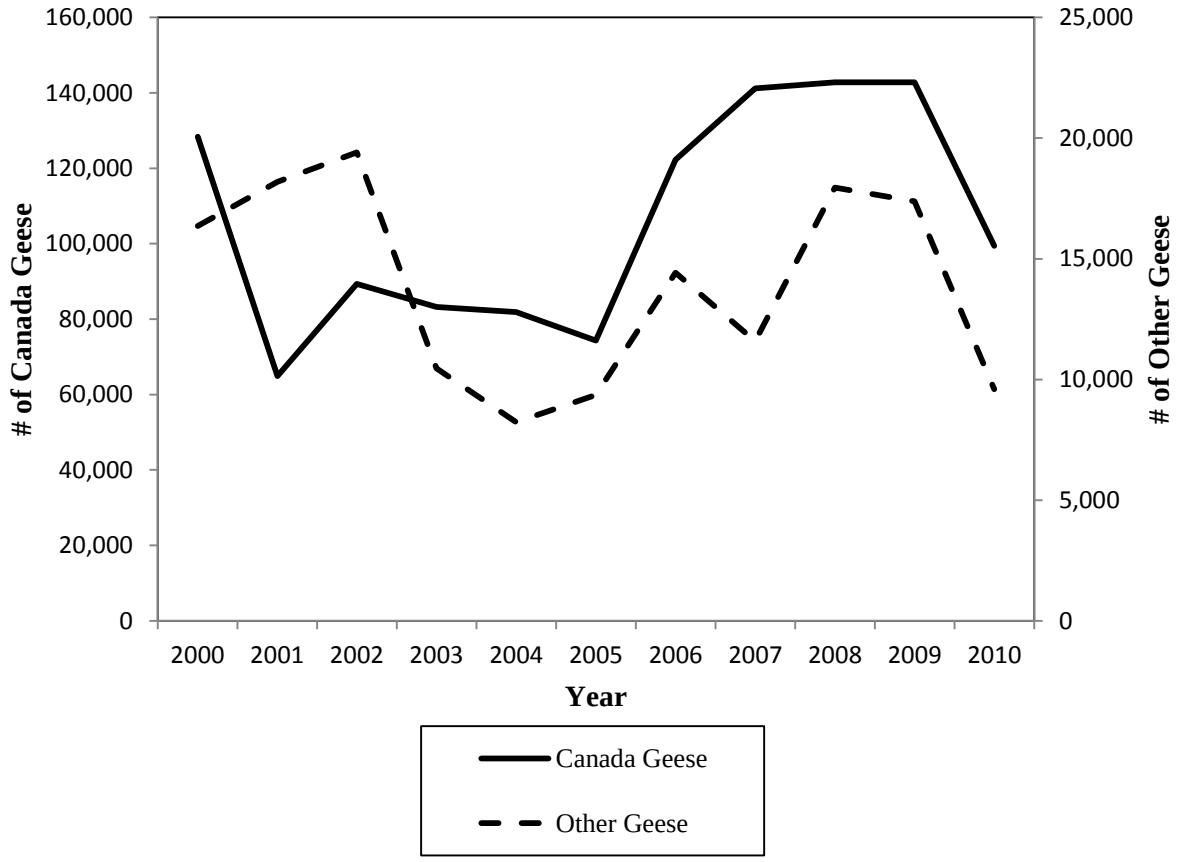


Figure 10. Goose harvest during Illinois' regular goose season from 2000-2010.

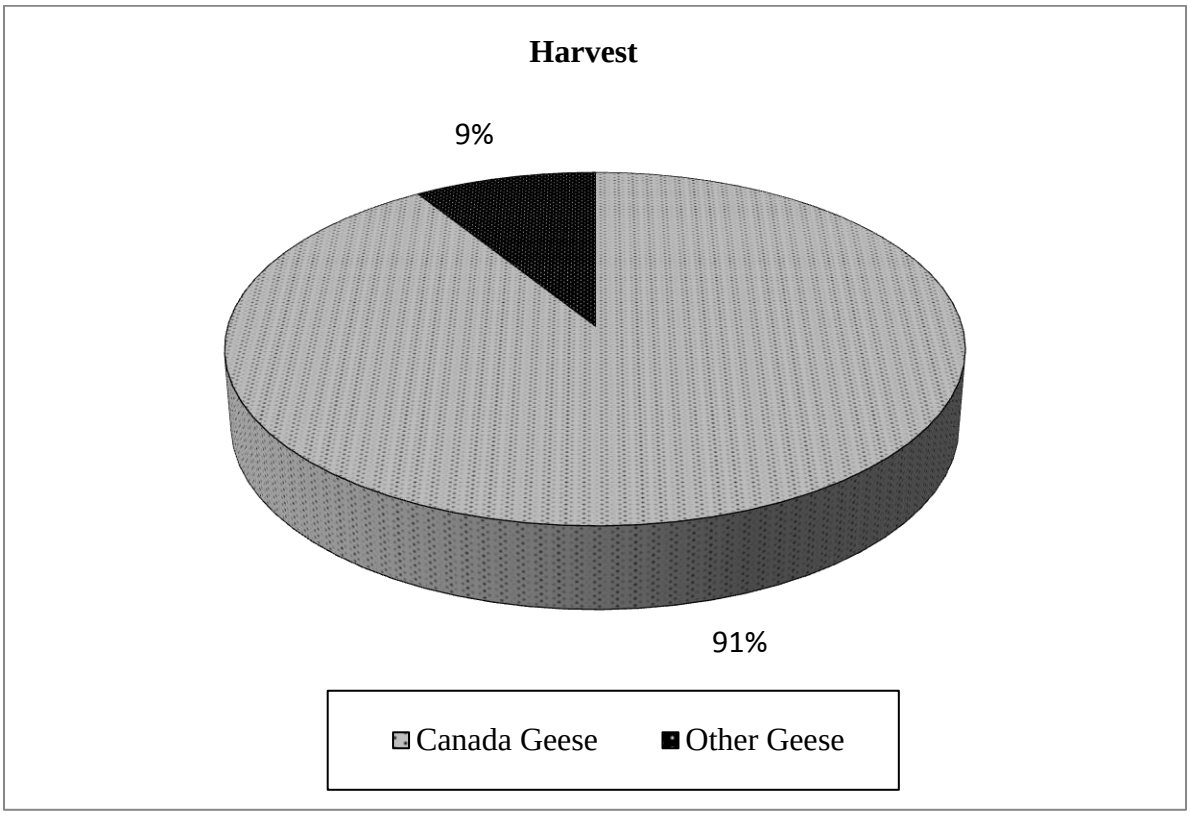


Figure 11. 2010-2011 Illinois' regular Canada goose season harvest.

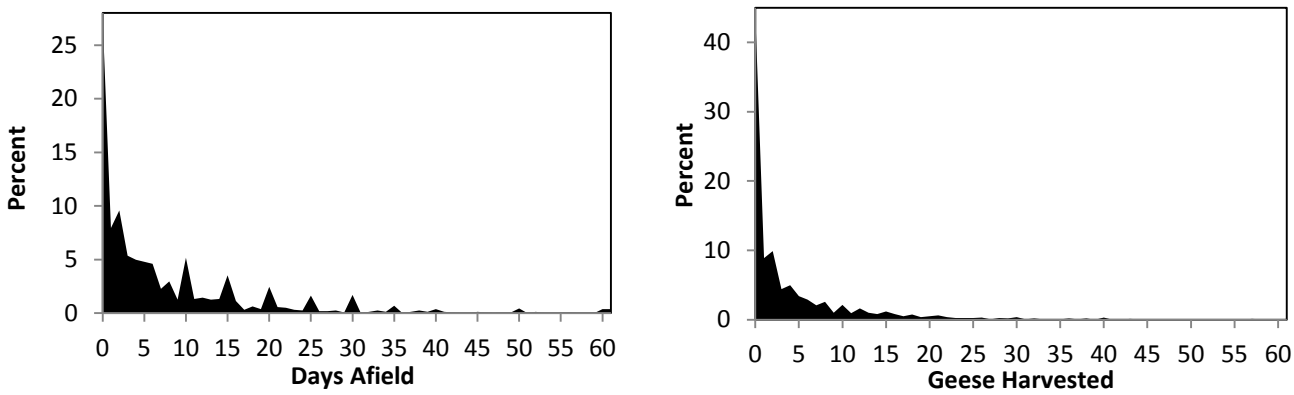


Figure 12. Distribution of days afield per hunter and geese harvested per hunter for Illinois' 2010-2011 regular goose season.

The Central zone leads the state in the number of goose hunters (47%; Table 12, Figure 13), days afield (49%), and both Canada goose (49%) and total goose harvest (46%). Harvest of Canada geese is summarized by zone and year (2008-2009 through 2010-2011) in Table 13.

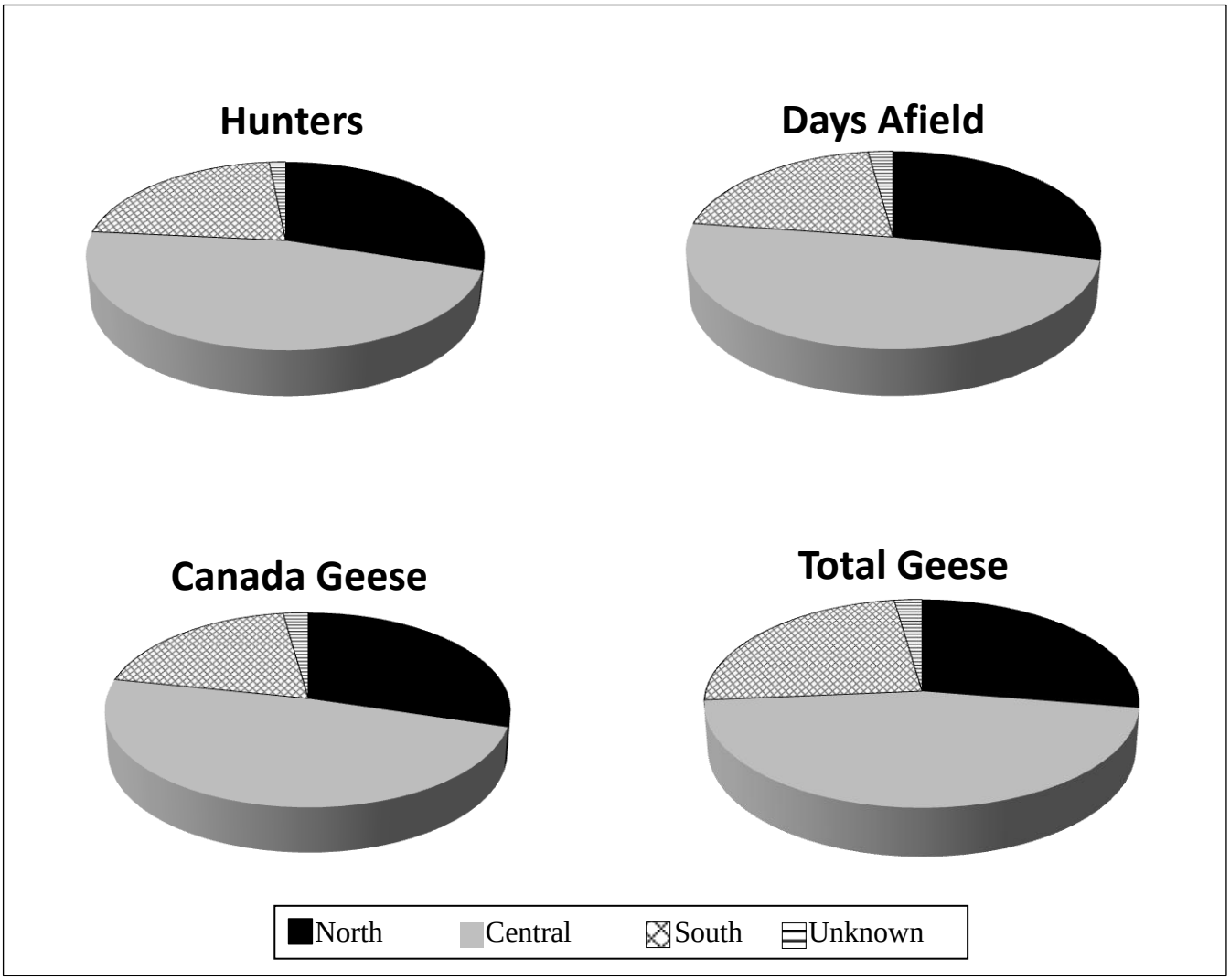


Figure 13. 2010-2011 goose harvest and hunter statistics by zone in Illinois.

Crippling Losses

Crippling losses (birds downed but not retrieved) were estimated at 57,388 ducks and 9,217 geese in Illinois during the 2010-2011 season (Table 14). These estimates, which are considered to be indices because they contain information about the relative number and are not actual numbers or abundance estimates, equate to 16.2 ducks and 8.5 geese lost per 100 harvested.

Season Date Opinions

Two-thirds (67%) of September teal season hunters, from the 2010 season, indicated that the season dates were about right (Table 15). Seventy-seven percent of hunters who hunted during the early goose season indicated that the season dates in 2010-2011 were about right. A similar percentage (~60%) of North zone and Central zone hunters indicated that season dates in the zone in which they duck hunted most often during the 2010-2011 season were about right (Figure 14). In the South zone, the season date issue was more contentious, with only 45% of hunters demonstrating the season was about right, whereas 32% of hunters reported it was too late. Overall, ≥65% of hunters in each zone reported the 2010-2011 Canada goose season dates were about right, with the Central zone having the highest support at 78% (Table 15).

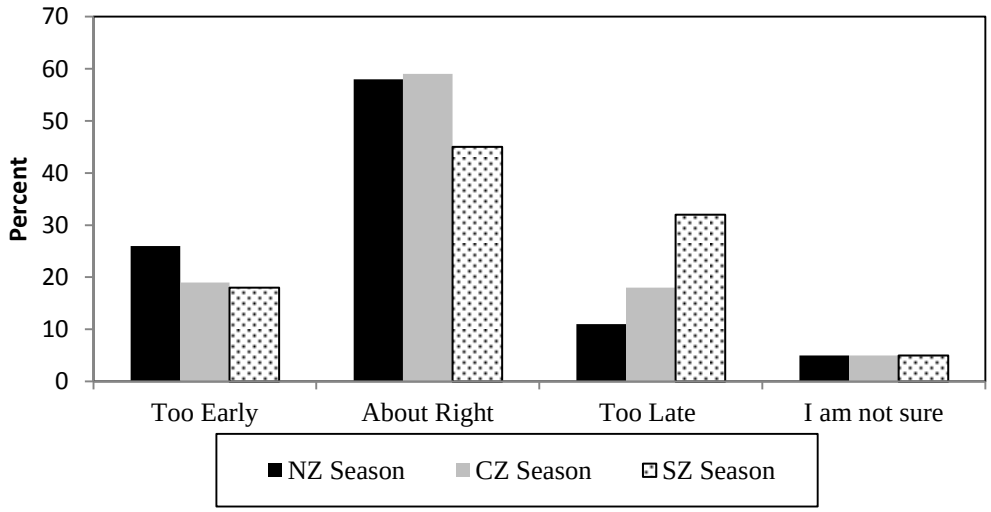
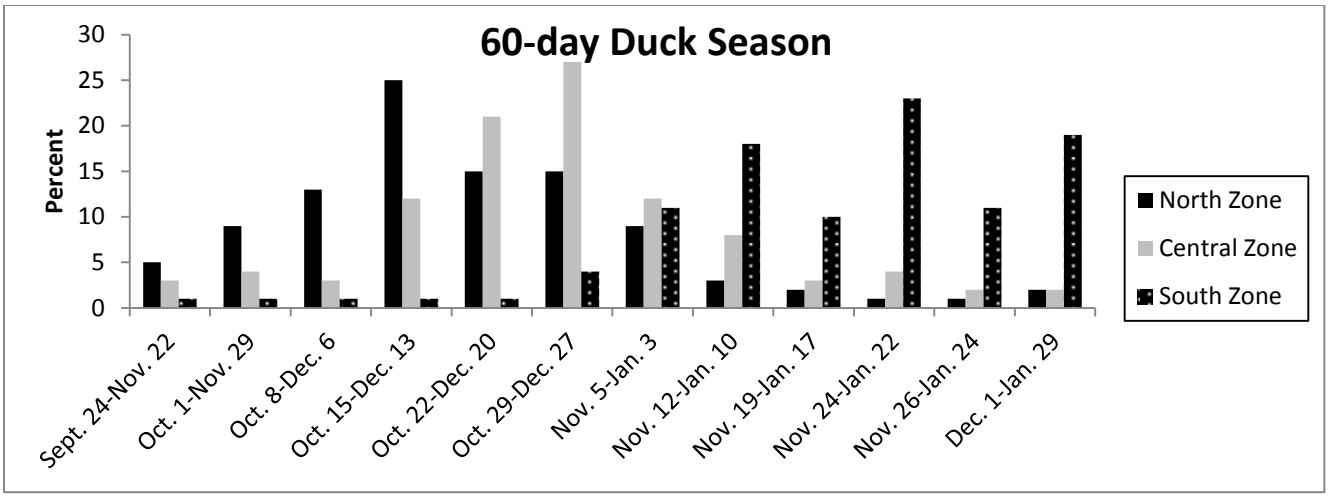


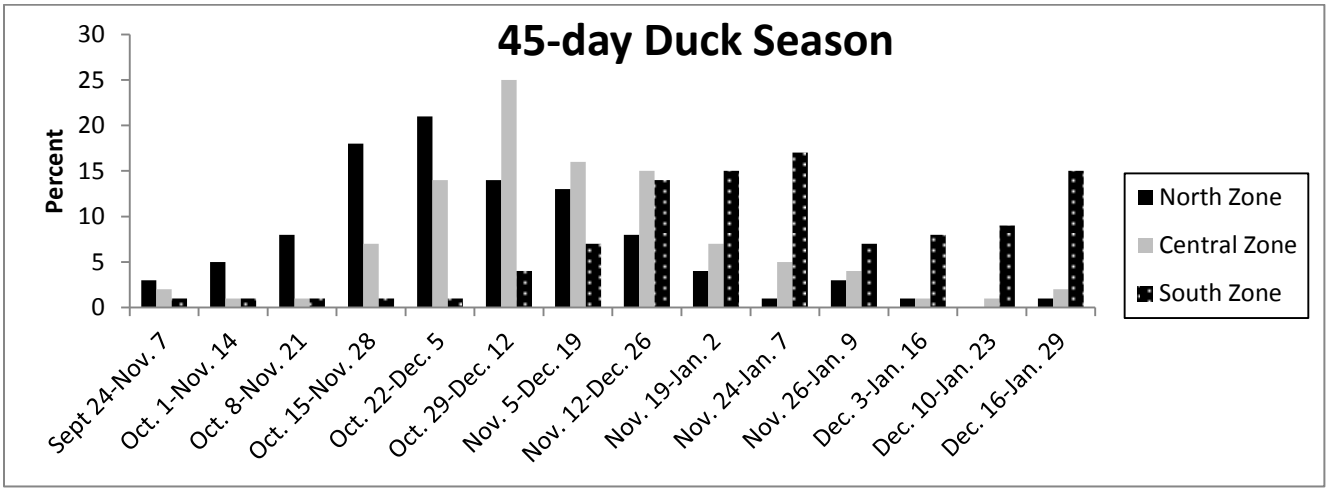
Figure 14. Hunters' attitudes regarding the 2010-2011 duck season dates in the zone they hunted most.

Duck Hunting Seasons and Zones in Illinois

Slightly less than half (47%) of North zone duck hunters were satisfied with the 2010-2011 North zone duck boundaries and season dates (Table 16) in Illinois. However, only 15% were dissatisfied with the zone boundaries and 29% were dissatisfied with season dates. A higher percentage of Central zone hunters (57%) were satisfied with the Central zone duck boundaries, and 50% of those hunters were satisfied with the Central zone duck season dates. Only 12% were dissatisfied with zone boundaries and 27% were dissatisfied with season dates. Approximately half (48%) of South zone hunters were satisfied with the Southern zone duck boundaries and 22% were dissatisfied, whereas 42% of hunters were dissatisfied with the duck season dates and 40% were satisfied (Table 16).

Regarding 60-day season date preferences, North and Central zone hunters' choices were normally distributed, with the median season date being Oct. 15-Dec. 13 (25% ± 5%) for the North zone and Oct. 29-Dec. 27 (27% ± 4%) for the Central zone. South zone hunters' preferences were more varied but skewed towards the later end of the season; the median date selected was Nov. 24-Jan. 22 (23% ± 5%), but overlapped with Dec. 1-Jan. 29 (19%) and Nov. 12-Jan. 10 (18%) season dates (Figure 15, Table 17). Thus, there was no clear preference for season dates in the South zone. The results for a 45- and 30-day season can also be found in Table 17.





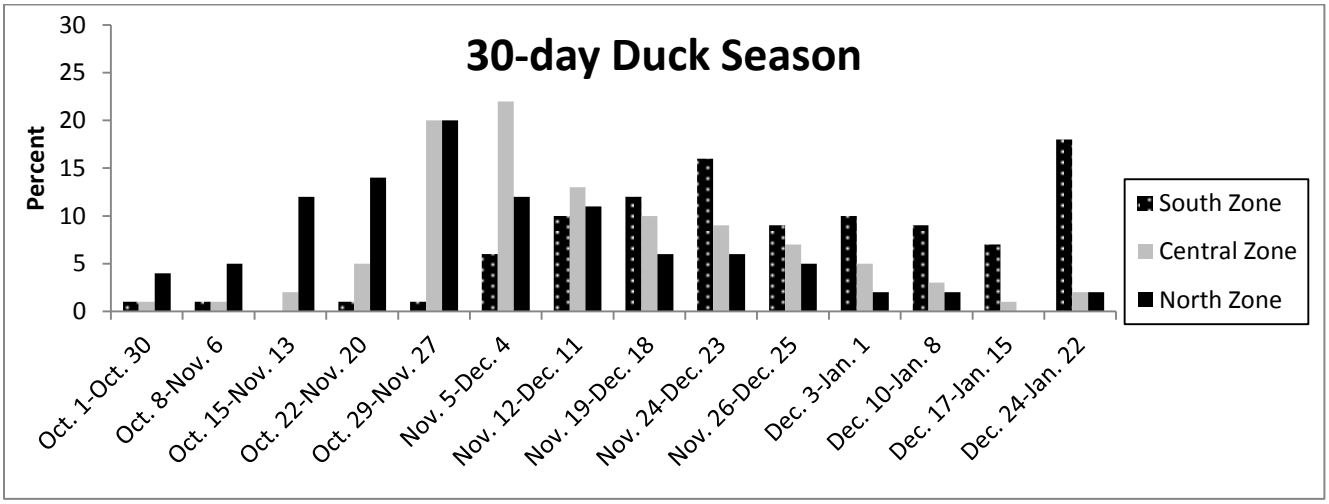


Figure 15. Hunters' preferences for season dates in Illinois. Median dates for the 60-day duck season were North zone: Oct. 15-Dec. 13, Central zone: Oct. 29-Dec. 27, and South zone: Nov. 24-Jan. 22. Percentages total more than 100% due to rounding of numbers.

Duck Hunting Zone Changes in Illinois

Northeast Illinois (I-80) Line

North zone hunters indicated that they either do not want the zone line to change or they had no opinion on the I-80 line proposal (Table 18). Slightly more than half (54%) of Central zone hunters had no opinion about the I-80 line, and 34% did not want the line to change. Collectively, slightly less than half (48%) of North and Central zone hunters did not have an opinion about the zone line, and 36% did not want the line to change (Figure 16).

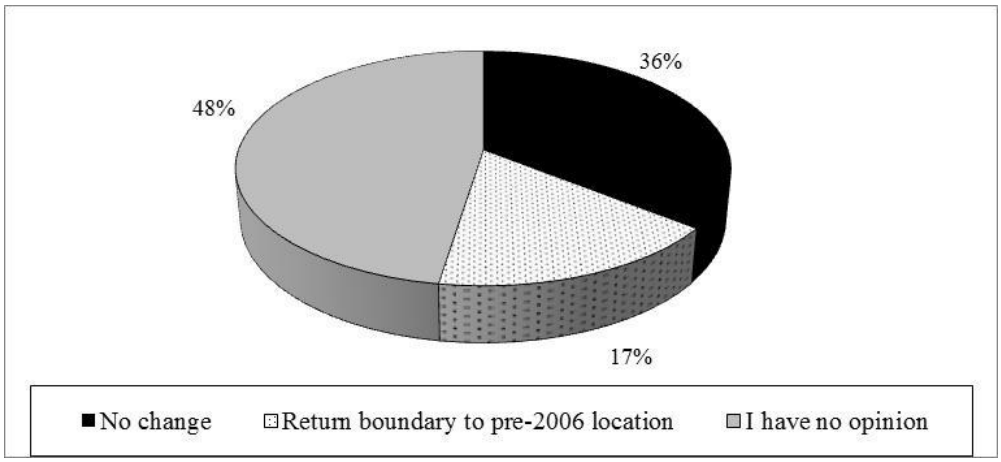


Figure 16. North and Central zone hunters' (*n* = 1,013) attitudes toward the easternmost area of the North/Central zone line option.

Western Illinois (Mississippi River) Line

Hunters were given the opportunity to select an option for the western location of the North-Central zone line. This line would run from Mercer county, south along the Mississippi River, and terminate in Madison County. Overall, there was very little support (<10% selected this option) from the North zone and Central zone hunters (Table 19). Together, 51% of North and Central zone hunters had no opinion about the location of this boundary, 42% did not want the current location of this boundary to change, and only 7% selected moving the boundary to follow the Mississippi River (Figure 17).

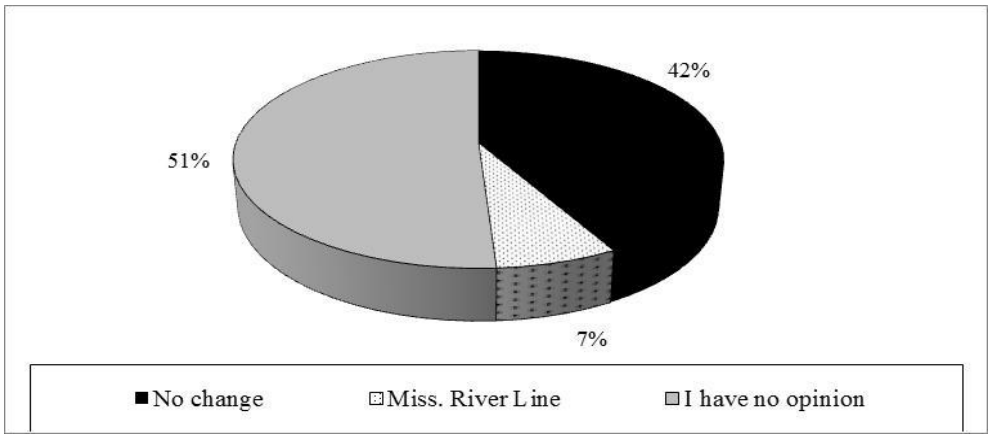


Figure 17. North and Central zone hunters' (*n* = 1,015) attitudes toward the "Mississippi" River North/Central zone line option.

Southwest (South Central) Line

A fourth zone has been proposed to the Fish and Wildlife Service from the Illinois Department of Natural Resources. This zone, coined the South Central zone, would roughly be located between the current location of the Central zone and the South zone. Hunters had 3 choices regarding the location of the zone boundary, plus "I have no opinion." The majority of Central zone hunters (60%) did not have an opinion, whereas 26% did not want the line to change, and only 11% wanted to move the line from the current location to I-70 (Table 20). South zone hunters (45%) also indicated they had no opinion on the location of this boundary, and 23% did not want to see the line change, while 22% wanted to move the line up to I-70. Collectively, Central and South zone hunters did not have an opinion about this boundary (55%), and 25% did not want to see the line changed (Figure 18).

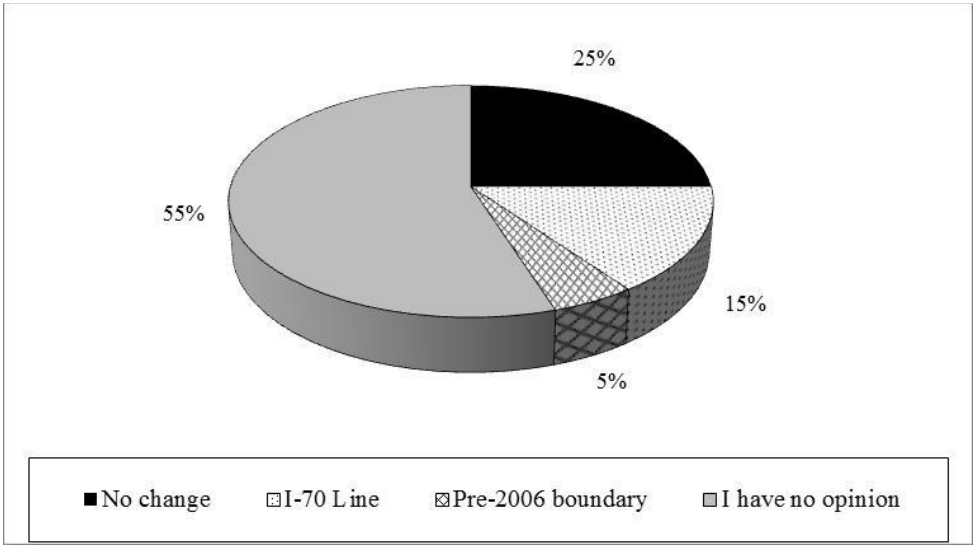


Figure 18. Central and South zone hunters' (*n* = 960) attitudes toward the southwest portion of the Central/South Central zone line option.

Southern (South Central) Line

Adding a fourth zone in Illinois would essentially split the current South zone into two parts, and hunters were asked where they would like the proposed South zone to be located. South zone hunters either selected to have the zone line follow Route 13, Route 127, and the Union/Jackson county line (41%) or they had no opinion (40%) (Figure 19). There was less support to have the line follow the Wabash River (19%).

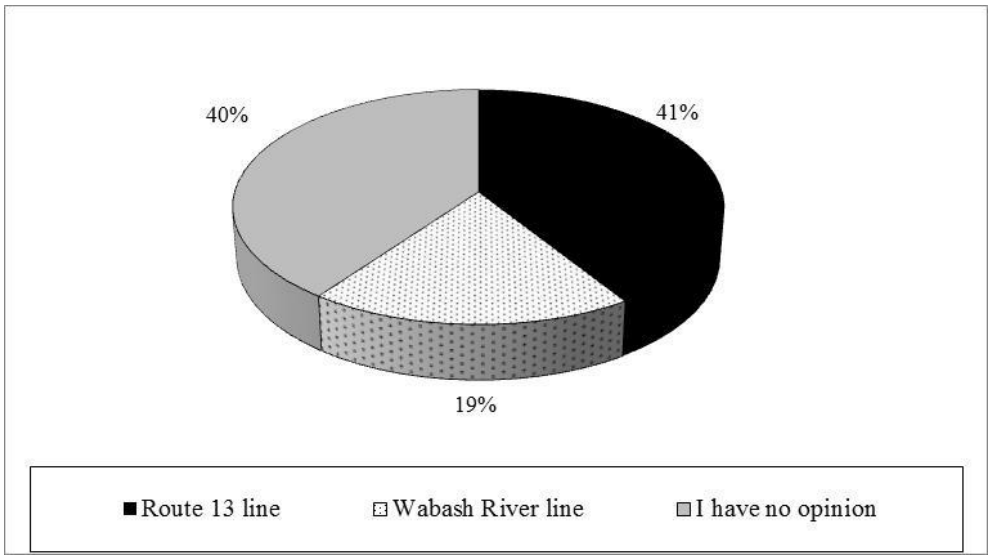


Figure 19. South zone hunters' (*n* = 329) attitudes toward the new location of the proposed South zone boundary.

Hunter Characteristics

Respondents who hunted waterfowl during the 2010-2011 year have been hunting waterfowl for an average of 22 years and were 46 years old. Respondents who did not hunt waterfowl during the 2010-2011 year have been, on average, hunting for fewer years (18 years) and were older (49 years) (Figure 20) (Table 21). These results suggest older hunters with fewer years of waterfowl hunting experience were less likely to hunt waterfowl in Illinois during the 2010-2011 waterfowl season,

however further research is needed to make this assertion. The majority (98%) of respondents to the 2010-2011 survey were male.

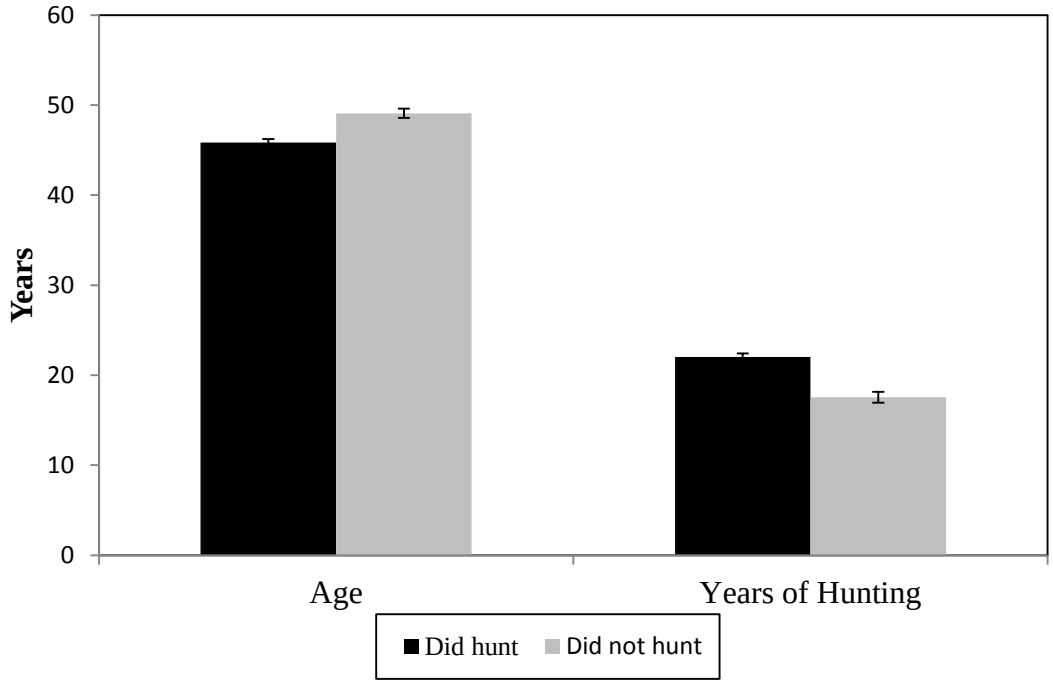


Figure 20. Differences between hunters and non-hunters in Illinois during the 2010-2011 waterfowl season, along with standard error bars.

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Table 1. Summary of Illinois Migratory Waterfowl Stamps purchased, hunter activity, and waterfowl harvest in Illinois from 1981 through 2010 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

[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 2. The percentage of waterfowl hunters who hunted exclusively ducks, exclusively geese, or both ducks and geese in Illinois from 1981 through 2010 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%	85.4%	74.8%
2009	27.5%	8.4%	64.1%	82.8%	74.4%
2010	25.0%	13.1%	61.9%	85.3%	72.3%

Table 3. Summary of Teal harvest and hunter activity during September Teal season (Illinois, 1981-2010).

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[b]
2010	13,038	49,038	20,127[b]

[a]The September Teal season was suspended by the U.S. Fish and Wildlife Service during these years.
[b]The 95% confidence intervals are: 2009 = $\pm$ 7,372 and 2010 = $\pm$ 9,322.

Table 4. Teal harvest and hunter activity by zones during September Teal season (Illinois, 2010).

	n	Estimated Hunters	Estimated Days Hunted	Estimated Teal Harvested
North Zone	91	2,922	11,754	3,089
Central Zone	209	6,712	24,760	11,198
South Zone	93	2,987	11,176	5,599
Unknown	13	417	1,348	241
Statewide	406	13,038	49,038	20,127

Table 5. Rates of Teal harvest and hunter activity during September Teal season (Illinois, 1981- 2010).

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

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

Table 6. Waterfowl harvest and hunter activity during Youth Waterfowl Hunting Day(s) 1996 -2010.

Year	Adult Participation	Youth Participation	Days Hunting	Mean Youths/ Hunting Party
1996[a]	2,749	4,353	4,353	1.58
1997[a]	3,163	4.322	4,322	1.37
1998[a]	3,343	5,142	5,142	1.54
1999[a]	5,505	8,113	8,113	1.47
2000[b]	6,815	10,107	14,079	1.48
2001[b]	9,140	15,148	22,525	1.67
2002[b]	8,498	13,325	19,548	1.57
2003[b]	7,415	11,419	17,985	1.54
2004[b]	5,603	7,891	12,997	1.41
2005[b]	4,540	6,489	10,268	1.58
2006[b]	5,447	8,024	11,903	1.48
2007[b]	6,259	8,981	14,356	1.60
2008[b]	6,402	9,878	14,799	1.50
2009[b]	7,073	9,772	15,922	1.63
2010[b]	5,471	7,452	11,828	1.59

Year	Total Ducks	Ducks/ Youth/Day	Total Coots	Coots/ Youth/ Day	Total Geese	Geese/ Youth/ Day
1996 [a]	3,171	0.73	230	0.05	----[c]	---
1997 [a]	3,451	0.80	387	0.09	----[c]	---
1998[a]	4,159	0.81	208	0.04	289	0.06
1999 [a]	5,835	0.72	629	0.08	571	0.07
2000 [b]	8,388	0.60	38	<0.01	882	0.06
2001 [b]	11,727	0.52	480	0.02	971	0.04
2002 [b]	9,085	0.46	271	0.01	887	0.05
2003[b]	9,184	0.51	178	0.01	1,116	0.06
2004 [b]	7,477	0.58	48	<0.01	561	0.04
2005 [b]	5,644	0.55	583	0.06	965	0.09
2006 [b]	9,863	0.83	133	0.01	732	0.06
2007[b]	9,141	0.64	850	0.06	1,701	0.12
2008[b]	10,380	0.70	241	0.02	1,466	0.10
2009[b]	11,229	0.71	599	0.04	2,396	0.15
2010[b]	9,156	0.77	419	0.04	1,420	0.12

[a] One day season.
[b] Two day season.
[c] Could not hunt geese during the Youth Waterfowl Hunting Day in 1996 and 1997.

Table 7. Summary of duck and coot harvest and hunter activity during the regular duck season (Illinois 1981-2010).

Season (Year)	Hunters	Days Afield	Number of Ducks				Coots
			Mallards	Wood Ducks	Other Ducks	Total	
1981	54,744	703,534	170,972	72,065	94,947	337,984	4,950
1982	52,220	646,394	163,439	61,706	101,989	327,134	5,905
1983	50,440	651,409	220,317	72,237	110,862	403,416	10,472
1984	49,715	606,325	182,132	52,955	120,016	355,103	7,702
1985	51,362	556,800	168,549	51,216	97,155	316,920	5,773
1986	53,588	638,090	201,676	65,414	112,490	379,580	7,372
1987	51,704	558,172	155,783	58,488	74,748	289,019	2,694
1988[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	246,944	3,880
1995	42,499	482,620	230,505	47,155	99,632	377,292	3,386
1996	44,219	460,517	163,311	38,783	82,431	284,525	3,286
1997	42,587	514,934	145,533	44,678	100,950	291,161	3,935
1998	41,755	517,372	200,030	57,393	129,439	386,862	2,920
1999	51,850	860,368	311,325	69,930	181,650	562,905	3,654
2000	43,810	621,542	271,903	58,604	166,834	497,341	2,206
2001	53,194	797,884	305,180	61,515	167,883	534,578	2,904
2002	47,964	642,542	197,392	46,238	106,213	349,843	1,743
2003	50,658	738,914	285,011	48,023	153,165	486,199	1,693
2004	49,046	652,960	207,982	44,725	116,951	369,658	1,607
2005	43,185	539,672	240,897	37,942	133,509	412,348	2,186
2006	50,437	658,881	308,000	38,366	161,098	507,464	3,065
2007	49,114	600,614	265,369	34,628	164,369	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	3,904
2010	43,450	499,758	193,758	39,611	121,375	354,859	1,770

[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.

Table 8. Duck harvest and hunter activity by waterfowl zones and selected areas during the regular duck season (Illinois 2010-2011).

Waterfowl Zone	*n*	Hunters	Estimated Days Hunted	Estimated Ducks Harvested
North	352	11,304	114,679	65,241
Central	642	20,617	247,824	183,849
South	345	11,079	133,241	103,726
Unknown	14	450	4,014	2,043
Statewide	1,353	43,450	499,758	354,859

Table 9. Rates of duck harvest and hunter activity during the regular duck season (Illinois 1981- 2010).

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

[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 10. Canada goose harvest and hunter activity during the early September Canada goose season (Illinois 1997 -2010).

	Year	Waterfowl Zone				
		Statewide	North	Central	South	Unknown
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
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
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

Table 11. Summary of goose harvest and hunter activity during the regular goose season (Illinois 1981-1982 through 2010-2011).

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[a])	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[d] (940)
2010	36,803	385,432	99,422 (534)	9,594 (46)	109,016[d] (580)

[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.

[d]The 95% confidence intervals are : 2009 = $\pm$ 36,569 and 2010 = $\pm$ 22,523.

Table 12. Goose harvest and hunter activity by zones, regular season (Illinois 2010-2011).

			Estimated Goose Harvest			
Zone	Hunters	Days Afield	Canada Geese	White-Fronted Geese	Snow/Blue Geese	Total Geese
North Zone	11,047	110,440	29,472	276	276	30,025
Central Zone	17,117	187,417	48,306	890	1,059	50,256
South Zone	8,061	79,097	19,433	3,300	3,484	26,218
Unknown	578	8,478	2,210	138	169	2,517
Statewide	36,803	385,432	99,422	4,605	4,989	109,016

Table 13. Canada goose harvest by zone during the regular goose season (Illinois 2008-2009 through 2010-2011).

Zone	2008-2009	2009-2010	2010-2011	Mean	S.D.
North	45,863	34,818	29,472	36,718	8,359
Central	68,553	73,750	48,306	65,536	13,443
South	27,890	33,913	19,433	27,079	7,274
Unknown	500	355	2,210	1,022	1,032
Statewide	142,806	142,836	99,422	128,355	25,056

Table 14. Summary of the number of ducks and geese crippled (Illinois 1981 - 2010 seasons).

	Estimated Ducks		Estimated Geese	
Year	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 [a]	65,856	35.5	22,730	30.6
1989 [a]	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

[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.

Table 15. Hunters' attitudes regarding various season dates during the 2010-2011 waterfowl season in Illinois.[1]

	n	Too early	About right	Too late	I am not sure.	95% C. I
Sept. Teal Season	358	17%	67%	5%	11%	± 5.1
Sept. Early Goose Season	309	15	77	3	5	± 5.5
North Zone Duck Season	368	26	58	11	5	±5.0
Central Zone Duck Season	642	19	59	18	5	±3.8
South Zone Duck Season	343	18	45	32	5	±5.2
North Zone Canada Goose Season	347	18	68	8	6	±5.2
Central Zone Canada Goose Season	573	13	78	6	3	±4.0
South Zone Canada Goose Season	274	24	65	6	5	±5.8

[1] Only respondents that indicated they hunted the teal season and early goose season were used, and the zone in which hunters hunted most often was used in the analysis. "I did not hunt this season" was excluded from the analysis.

Table 16. Level of satisfaction of hunters that hunted waterfowl (Illinois 2010-2011).[1]

How satisfied were you with	*n*	Very satisfied	Somewhat satisfied	Neither satisfied, nor dissatisfied	Somewhat dissatisfied	Very dissatisfied	I am not sure.	I don't have an opinion.
NZ duck zone boundaries?	385	27%	20%	21%	3%	12%	4%	13%
NZ duck season dates?	381	21	26	14	17	12	2	8
CZ duck zone boundaries?	672	29	28	20	7	5	3	9
CZ duck season dates?	664	19	31	15	17	10	2	5
SZ duck zone boundaries?	355	24	24	15	9	13	3	13
SZ duck season dates?	356	17	23	10	21	21	2	6

[1] Zones in which hunters indicated they hunted most often was used for the analysis. Thus, hunters' opinions were only counted once.

Table 17. Distribution of 60-, 45-, and 30-day preferences for duck seasons by zone in Illinois.

60-day dates	North Zone	Central Zone	South Zone
Sept. 24-Nov. 22	5%	3%	1%
Oct. 1-Nov. 29	9	4	1
Oct. 8-Dec. 6	13	3	1
Oct. 15-Dec. 13	25	12	1
Oct. 22-Dec. 20	15	21	1
Oct. 29-Dec. 27	15	27	4
Nov. 5-Jan. 3	9	12	11
Nov. 12-Jan. 10	3	8	18
Nov. 19-Jan. 17	2	3	10
Nov. 24-Jan. 22	1	4	23
Nov. 26-Jan. 24	1	2	11
Dec. 1-Jan. 29	2	2	19

45-day dates	North Zone	Central Zone	South Zone
Sept 24-Nov. 7	3%	2%	1%
Oct. 1-Nov. 14	5	1	1
Oct. 8-Nov. 21	8	1	1
Oct. 15-Nov. 28	18	7	1
Oct. 22-Dec. 5	21	14	1
Oct. 29-Dec. 12	14	25	4
Nov. 5-Dec. 19	13	16	7
Nov. 12-Dec. 26	8	15	14
Nov. 19-Jan. 2	4	7	15
Nov. 24-Jan. 7	1	5	17
Nov. 26-Jan. 9	3	4	7
Dec. 3-Jan. 16	1	1	8
Dec. 10-Jan. 23	0	1	9
Dec. 16-Jan. 29	1	2	15

30-Day dates	North Zone	Central Zone	South Zone
Oct. 1-Oct. 30	4%	1%	1%
Oct. 8-Nov. 6	5	1	1
Oct. 15-Nov. 13	12	2	0
Oct. 22-Nov. 20	14	5	1
Oct. 29-Nov. 27	20	20	1
Nov. 5-Dec. 4	12	22	6
Nov. 12-Dec. 11	11	13	10
Nov. 19-Dec. 18	6	10	12
Nov. 24-Dec. 23	6	9	16
Nov. 26-Dec. 25	5	7	9
Dec. 3-Jan. 1	2	5	10
Dec. 10-Jan. 8	2	3	9
Dec. 17-Jan. 15	0	1	7
Dec. 24-Jan. 22	2	2	18

Table 18. North and Central zone hunters' attitudes on the northeast location of the North/Central zone line in Illinois.

Options	North Zone (n = 378, ± 5.0%)	Central Zone (n = 635, ±3.8%)	North & Central Zone (n = 1,013, ±3.0%)
No Change	38%	34%	36%
Return to pre-2006 location (I-80)	24	12	17
I have no opinion	37	54	48

Table 19. North and Central zone hunters' opinions on the western location of the North/Central zone line in Illinois.

Options	North Zone (n = 375, ± 5.0%)	Central Zone (n = 640, ± 3.8%)	North & Central Zone (n = 1,015, ± 3.0%
No Change	35%	46%	42%
Mississippi River Line	4	8	7
I have no opinion	61	46	51

Table 20. Central and South zone hunters' opinions on the southwest location of the Central/South Central zone line in Illinois.

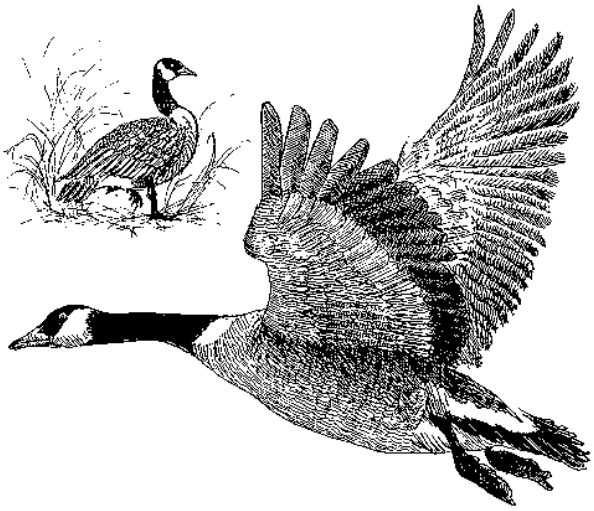
Options	Central Zone (n = 628, ± 3.9%)	South Zone (n = 332, ± 5.3%)	Central & South Zone (n = 960, ± 3.1%)
No Change	26%	23%	25%
I-70 line	11	22	15
Pre-2006 boundary	3	10	5
I have no opinion	60	45	55

Table 21. Average age of hunters and non-hunters and the average number of years they have been hunting in Illinois.

	n	Mean	S.E.
Age of 2010-2011 hunters	1,461	46	0.39
Age of 2010-2011 non-hunters	770	49	0.52
Hunters # of years hunting	1,455	22	0.43
Non-hunters # of years hunting	684	18	0.62

Appendix A

Illinois Waterfowl Hunter Survey
2010-2011 Season



Your comments are welcome! Please write them on a separate sheet of paper to receive proper attention.

THANK YOU FOR YOUR COOPERATION!

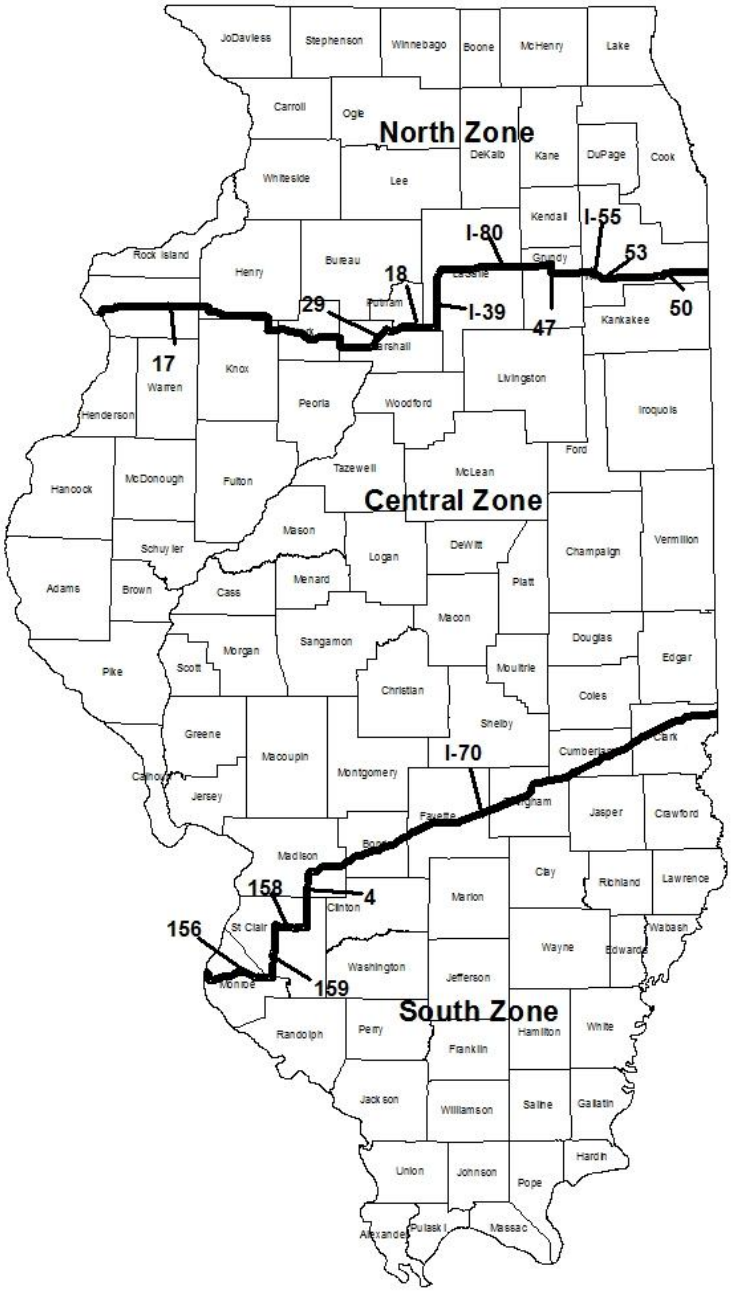
All of your responses will be kept confidential.
Please return this survey in the postage-paid return envelope provided.

Illinois Department of Natural Resources

Division of Wildlife Resources
and
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 hunting arms and ammunition.

Map of Illinois' Current Waterfowl Hunting Zone Lines



Waterfowl Hunting Effort and Harvest in Illinois. Please provide the following information so that Illinois Department of Natural Resources (IDNR) waterfowl biologists may estimate waterfowl harvest in Illinois. This information will help the IDNR take action to conserve waterfowl populations and provide hunting opportunities in Illinois.

1. Did you purchase an Illinois Migratory Waterfowl Stamp for the 2010-2011 seasons? *(Please check one.)*

[ ]$_1$ Yes
[ ]$_0$ No

2. Did you hunt waterfowl (ducks, geese, or coots) in Illinois during the 2010-2011 waterfowl hunting seasons? *(Please check one.)*

[ ]$_1$ Yes
[ ]$_0$ No ***(Please skip to question 10.)***

3. Please report your hunting effort and harvest in Illinois between September 2010 and January 2011 in the following tables.

- Include only your personal effort and harvest.
- Count part of 1 day as 1 whole day.
- Count days you had zero harvest in "Number of days hunted".
- For days you harvested both ducks and geese, only report days hunted in the table corresponding to the species you primarily targeted that day. For example, if you harvested ducks while targeting geese, only report days hunted in the table labeled "Regular Goose Season." Report duck harvest in the "Regular Duck Season" table, but do not report days hunted.

a. September Teal Season *(Do not include harvest after September.)*

County hunted	Number of days hunted	Teal harvested	Teal downed but not retrieved

b. September Canada Goose Season *(Do not include harvest after September.)*

County hunted	Number of days hunted	Geese harvested	Geese downed but not retrieved

c. Regular Duck Seasons *(Do not include harvest from September.)*

County hunted	Number of days hunted	Mallards harvested	Wood ducks harvested	Other ducks harvested	Coots harvested	Ducks downed but not retrieved

d. Regular Goose Seasons *(Do not include harvest from September or Conservation Order Light Goose season, which occurs after regular goose season closes.*)

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

4. In which zone did you hunt **ducks** most often during 2010-2011?
(Please check one.)

[ ]1 North Zone [ ]2 Central Zone [ ]3 South Zone

5. In which county do you hunt **ducks** most often in Illinois?

_____ County

6. In which zone did you hunt **geese** most often during 2010-2011?
(Please check one.)

[ ]1 North Zone [ ]2 Central Zone [ ]3 South Zone

7. Did you take a youth hunting during the 2010 Youth Waterfowl Hunting Days?
(Please check one.)

[ ]1 Yes
[ ]0 No ***(Please skip to question 8.)***

a. For each youth you hunted with, please report the following information. Include all youths that hunted and enter 0 if the youth did not harvest any ducks, geese, or coots.

	Age	Days hunted	County hunted	Mallards harvested	Wood ducks harvested	Other ducks harvested	Geese harvested	Coots harvested
Youth 1								
Youth 2								
Youth 3								
Youth 4								
Youth 5								

8. Did you feel that the dates of the 2010-2011 waterfowl hunting seasons were too early, about right, or too late? *(Please check one for each season.)*

Were the season dates…	too early?	about right?	too late?	I am not sure.	I did not hunt this season.
a. Teal season *(Sept. only)*	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5
b. Early goose season (*Sept. only*)	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5
c. North Zone Duck season	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5
d. Central Zone Duck season	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5
e. South Zone Duck season	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5
f. North Zone Canada Goose season	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5
g. Central Zone Canada Goose season	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5
h. South Zone Canada Goose season	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5

Duck Hunting Seasons and Zones in Illinois. IDNR waterfowl biologists aim to provide the type of duck hunting experience Illinois hunters' desire, while maintaining biologically sustainable duck populations. The information you provide in the following questions will allow biologists to use hunters' preferences, in addition to duck biology and weather, to make decisions about season dates.

9. How satisfied were you with the location of the duck zone boundaries and the timing of duck season dates for the county where you duck hunted most in 2010-2011 in Illinois? *(Please check one for each item.)*

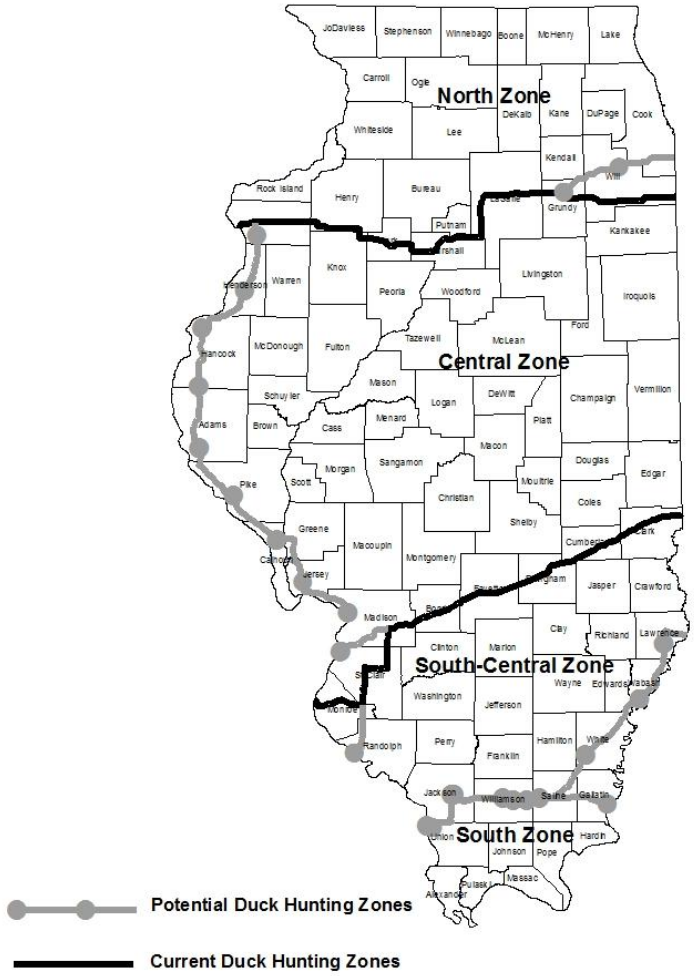
How satisfied were you with…	Very satisfied	Somewhat satisfied	Neither satisfied, nor dissatisfied	Somewhat dissatisfied	Very dissatisfied	I am not sure.	I don't have an opinion.
a. duck zone boundaries?	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5	[ ]6	[ ]7
b. duck season dates?	[ ]1	[ ]2	[ ]3	[ ]4	[ ]5	[ ]6	[ ]7

10. Which of the following potential season dates do you prefer for the duck season in the Illinois' county you hunt most often for ducks? Choose an answer for **each** of the three season lengths: 60 days, 45 days, and 30 days. **2011 gun deer season is Nov. 18-20th & Dec. 1-4th.** (*Please check **one for each season***.)

60 Day Season	**45 Day Season**	**30 Day Season**
[ ]1 Sept. 24 – Nov. 22	[ ]1 Sept. 24 – Nov. 7	[ ]1 Oct. 1 – Oct. 30
[ ]2 Oct. 1 – Nov. 29	[ ]2 Oct. 1 – Nov. 14	[ ]2 Oct. 8 – Nov. 6
[ ]3 Oct. 8 – Dec. 6	[ ]3 Oct. 8 – Nov. 21	[ ]3 Oct. 15 – Nov. 13
[ ]4 Oct. 15 – Dec. 13	[ ]4 Oct. 15 – Nov. 28	[ ]4 Oct. 22 – Nov. 20
[ ]5 Oct. 22 – Dec. 20	[ ]5 Oct. 22 – Dec. 5	[ ]5 Oct. 29 – Nov. 27
[ ]6 Oct. 29 – Dec. 27	[ ]6 Oct. 29 – Dec. 12	[ ]6 Nov. 5 – Dec. 4
[ ]7 Nov. 5 – Jan. 3	[ ]7 Nov. 5 – Dec. 19	[ ]7 Nov. 12 – Dec. 11
[ ]8 Nov. 12 – Jan. 10	[ ]8 Nov. 12 – Dec. 26	[ ]8 Nov. 19 – Dec. 18
[ ]9 Nov. 19 – Jan. 17	[ ]9 Nov. 19 – Jan. 2	[ ]9 Nov. 24 (Thanksgiving) – Dec. 23
[ ]10 Nov. 24 (Thanksgiving) – Jan. 22	[ ]10 Nov.24 (Thanksgiving) – Jan. 7	[ ]10 Nov. 26 – Dec. 25
[ ]11 Nov. 26 – Jan. 24	[ ]11 Nov. 26 – Jan. 9	[ ]11 Dec. 3 – Jan. 1
[ ]12 Dec. 1 – Jan. 29	[ ]12 Dec. 3 – Jan. 16	[ ]12 Dec. 10 – Jan. 8
[ ]13 I am not sure.	[ ]13 Dec. 10 – Jan. 23	[ ]13 Dec. 17 – Jan. 15
	[ ]14 Dec. 16 – Jan. 29	[ ]14 Dec. 24 – Jan. 22
	[ ]15 I am not sure.	[ ]15 I am not sure.

Duck Hunting Zone Changes in Illinois. In 2011, the IDNR is considering changing the location of the boundaries that divide the duck hunting zones in Illinois (dotted lines) and adding an additional duck hunting zone. Traditionally, Illinois has had 3 zones (solid lines). Now, Illinois' biologists are interested in adding a South-Central zone that would be located between the current Central zone and a smaller South zone (see map below). The answers you provide to the following questions will be used when making recommendations for the location of the new boundaries between zones.

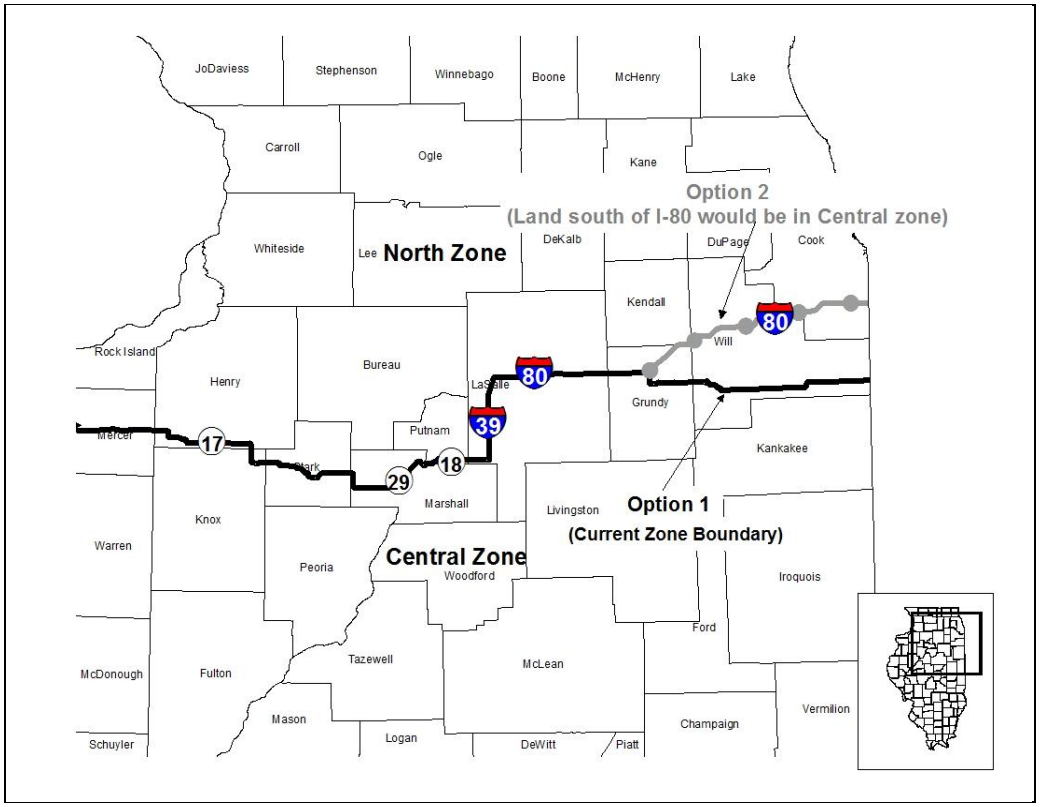
Map of Potential Options for Duck Hunting Zones



Refer to questions 11-14 for details.

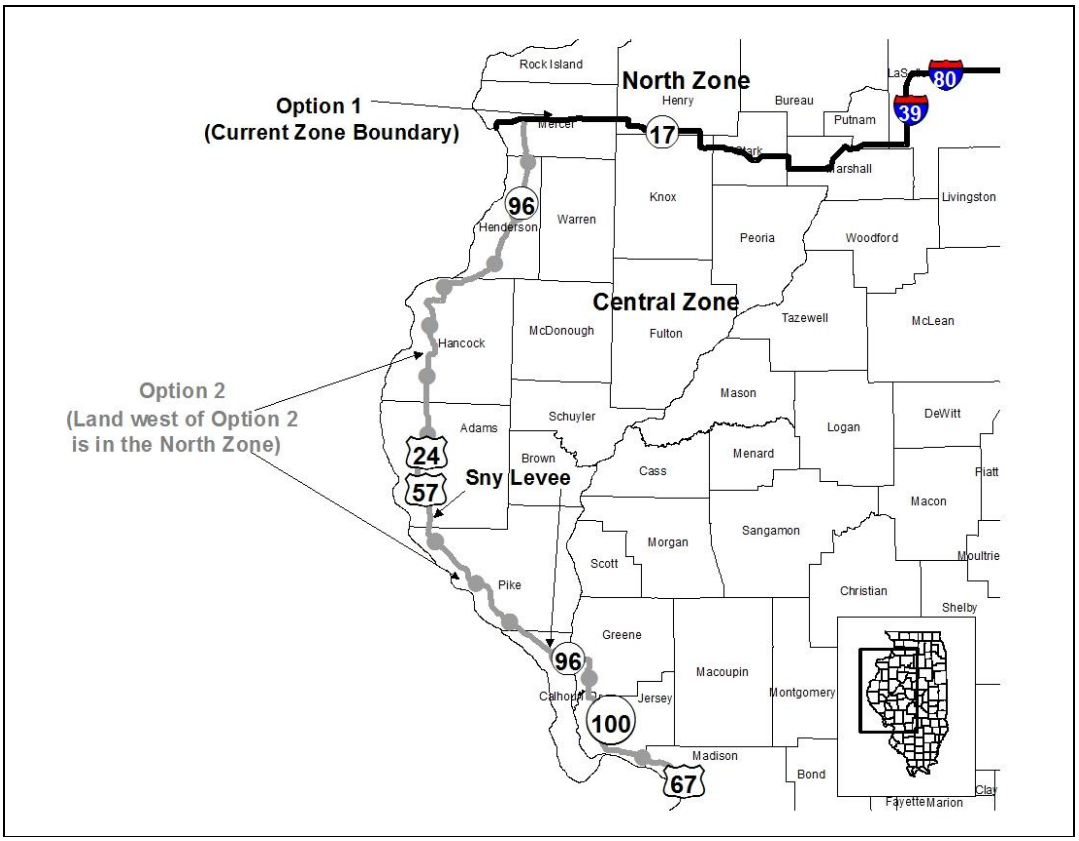
11. In northeast Illinois, where would you prefer the boundary between the North and Central zone be located? The Central zone would likely open 1-2 weeks after the North zone opens. (*Please check one*.)

[ ]1 Option 1: No change; keep the current zone boundary.
[ ]2 Option 2: Return the boundary to its pre-2006 location (along Interstate 80).
[ ]3 I have no opinion on the location of this boundary.



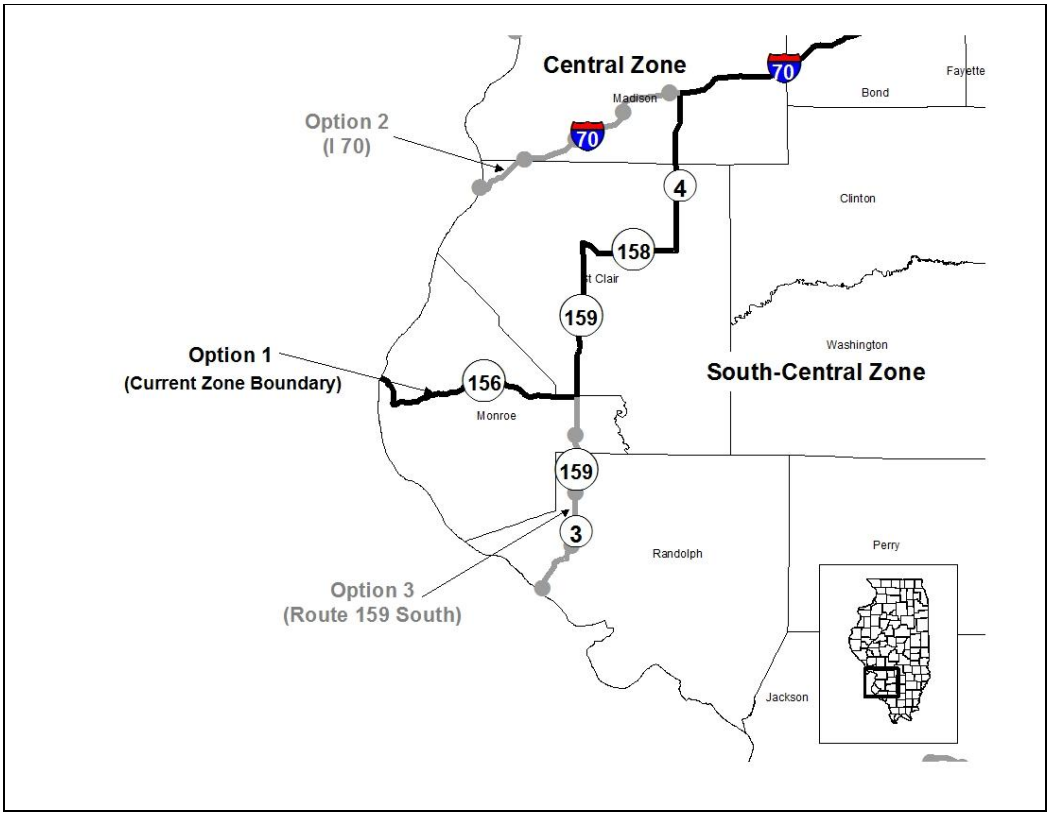
12. In northwest Illinois, where would you prefer the boundary between the North and Central zone be located? The Central zone would likely open 1-2 weeks after the North zone opens. (*Please check one*.)

[ ]1 Option 1: No change; keep the current zone boundary where Route 17 continues West to Mississippi River.
[ ]2 Option 2: Boundary follows Route 17 to Route 96 to SNY Levee to Route 100 to U.S. 67 (West of line= North zone, East of line= Central zone).
[ ]3 I have no opinion on the location of this boundary.



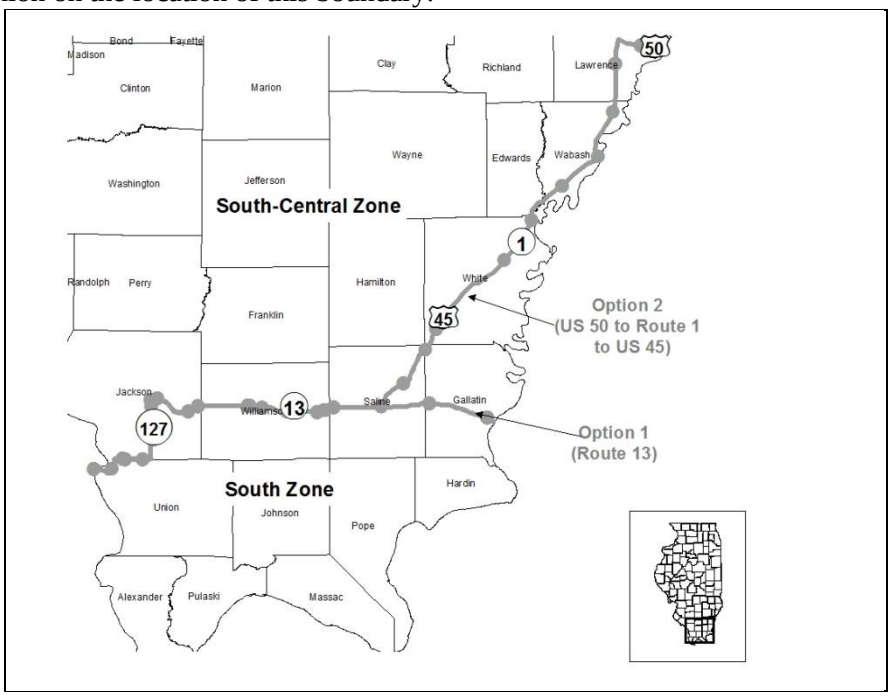
13. In southwest Illinois, where would you prefer the boundary between the Central and the South-Central zone be located? The South-Central zone would likely open 1-3 weeks after the Central zone opens and 2-4 weeks before the new South zone opens. (*Please check one*.)

[ ]1 Option 1: No change; keep the current zone boundary between the Central zone and the South zone.
[ ]2 Option 2: Land south of Interstate 70 would be in the South-Central zone.
[ ]3 Option 3: Pre-2006 boundary, follows Route 159 south to local roads to Modoc Ferry Route on MS River to the state border (West of line = Central zone, East of line = South-Central zone).
[ ]4 I have no opinion on the location of this boundary.



14. In southern Illinois, where would you prefer the boundary between the proposed South-Central and the new South zone be located? The new South zone would likely open 2-4 weeks after the South-Central Zone opens. (*Please check one*.)

[ ]1 Option 1: Boundary follows Routes 13, 127, and the Union / Jackson County line.
[ ]2 Option 2: Boundary follows US 50, to Route 1, to US 45, to Route 13, to Route 127, and the Union / Jackson County line. (East of line = South Zone, West of line = South-Central Zone).
[ ]3 I have no opinion on the location of this boundary.



15. For how many years have you hunted waterfowl in Illinois? _____ years

16. Are you [ ]1 male or [ ]2 female? *(Please check one.)*

17. As of October 1, 2010, what was your age? _____ years

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, 524 S. Second St., 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
Institute of Natural Resource Sustainability
University of Illinois at Urbana-Champaign

January 25, 2011

Dear Waterfowl Hunter,

I am writing to ask for your help in a study of Illinois waterfowl hunters. 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 guide waterfowl management decisions to optimize hunting opportunity, and allow for effective management of Illinois' duck and goose populations.

You are part of a random sample of waterfowl hunters we have selected to provide information about your hunting activities during the 2010-2011 waterfowl hunting seasons in Illinois. Please take a few minutes to complete the enclosed questionnaire, even if you did not hunt ducks or geese in Illinois during the 2010-2011 season. Please refer to the harvest record card we sent you in September, as necessary, to complete the questionnaire. Your responses are confidential and will not be associated with your name or address in published reports. While your response to this questionnaire and any of the questions is completely voluntary, you can help us effectively manage waterfowl and hunting in Illinois by sharing your experiences and views. You may skip any questions you do not feel comfortable answering. We look forward to hearing from you soon.

If you have any questions or comments about this study, please contact Linda Campbell, Survey Administrator, at (217) 244-5121 or write her at the address listed below. If you have any questions about your rights as a participant in this study, please contact the University of Illinois Institutional Review Board at (217) 333-2670 (collect calls accepted if you identify yourself as a research participant) or via email at irb@illinois.edu.

You may access the results of this and other studies of wildlife use 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/.

Sincerely,

Mark G. Alessi
Human Dimensions Specialist
Illinois Natural History Survey

Appendix C

ILLINOIS
DEPARTMENT OF
NATURAL
RESOURCES

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, please accept our sincere thanks. If you have not returned the questionnaire, please do so today.** Because wildlife managers are interested in serving the public, your input is vital. If you have any questions about this study or require a replacement questionnaire, please call (217) 244-5121.

Thank you for your cooperation.

Mark G. Alessi
Human Dimensions Specialist,
Illinois Natural History Survey

Appendix D

ILLINOIS NATURAL HISTORY SURVEY
Institute of Natural Resource Sustainability
University of Illinois at Urbana-Champaign

March 1, 2011

Dear Waterfowl Hunter,

A few weeks ago, we sent you a questionnaire asking about your waterfowl hunting activities in Illinois. To the best of our knowledge, the questionnaire has not yet been returned. If this letter and your completed questionnaire have crossed in the mail, please accept our sincere thanks for your participation in this study.

Your views are crucially important, even if you did not hunt ducks and geese in Illinois during 2010-2011. The comments of hunters, who have already responded, show that they have a variety of concerns about waterfowl hunting in Illinois. The results of this study will help Illinois Department of Natural Resources biologists make informed decisions about how to manage waterfowl hunting in Illinois so that it benefits all of Illinois' hunters and citizens.

If you have not already done so, please take a few minutes to complete the enclosed questionnaire. The enclosed questionnaire is a duplicate copy of the one you received earlier. Your responses are completely confidential and will not be associated with your name or address in any printed reports. While your response to this questionnaire and any of the questions is completely voluntary, you can help us effectively manage ducks and geese in Illinois by sharing your experiences and views. You may skip any questions you do not feel comfortable answering. We look forward to hearing from you soon.

If you have any questions or comments about this study, please contact Linda Campbell, Survey Administrator, at (217) 244-5121 or write her at the address listed below. If you have any questions about your rights as a participant in this study, please contact the University of Illinois Institutional Review Board at (217) 333-2670 (Collect calls accepted if you identify yourself as a research participant) or via email at irb@illinois.edu.

Thank you very much for helping with this important study.

Sincerely,

Mark G. Alessi
Human Dimensions Specialist
Illinois Natural History Survey

Appendix E

ILLINOIS NATURAL HISTORY SURVEY
Institute of Natural Resource Sustainability
University of Illinois at Urbana-Champaign

May 7, 2011

Dear Waterfowl hunter,

During the past few months, we have sent you several mailings about an important research study we are conducting for the State of Illinois. To our knowledge, you have not yet returned your questionnaire.

The purpose of the study is to help the Illinois DNR manage waterfowl and their harvest in Illinois. Your participation in this study will aid state agencies in planning management programs which provide the types of waterfowl hunting experiences hunters in Illinois desire.

We have enclosed an additional copy of the questionnaire in case you have misplaced the copy you received earlier. Your views are crucially important, regardless of how often you hunt waterfowl. **Please take a few minutes to complete the questionnaire**, seal it in the postage-paid envelope provided, and drop it in the mail.

We are sending this mailing because we are concerned that people who had not responded have different opinions about waterfowl management and hunting opportunities than those who have responded. Your response to the survey and any of its questions is completely voluntary. Your name will never be associated with your responses in any way and your privacy will be protected to the maximum extent allowable by law. We hope that you will fill out and return the questionnaire soon. By completing and returning this survey, you indicate your voluntary agreement to participate in this study. If, however, you prefer for any reason not to answer this questionnaire, please let us know by returning a blank questionnaire in the postage-paid envelope provided.

If you have any questions or comments about this study, we would be happy to talk with you. Please feel free to call Linda Campbell, Survey Administrator, at (217) 244-5121 or write her at the address listed below.

Finally, we appreciate your willingness to consider our request as we carry out this effort to better understand the waterfowl hunters' activities and attitudes in Illinois. Thank you very much.

Sincerely,

Mark G. Alessi
Human Dimensions Specialist
Illinois Natural History Survey