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Prairie Research Institute
University of Illinois at
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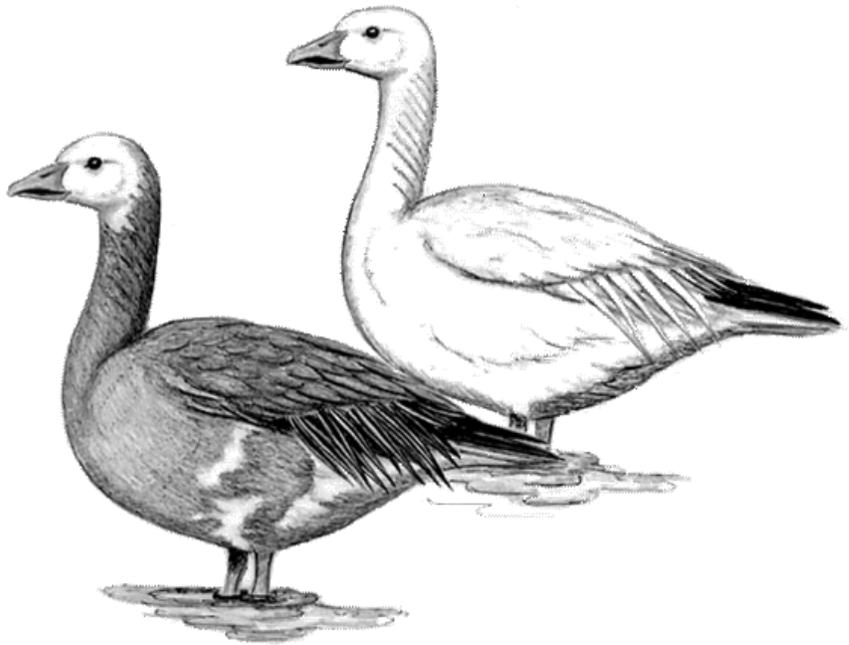
Wayne Rosenthal, Director
Illinois Department of Natural
Resources

Paul Vehlow
Federal Aid Coordinator

Mark G. Alessi
Acting Chief, Division of
Wildlife Resources



Hunter Participation, Harvest, and Hunting Behavior During the 2015 Illinois Conservation Order Season



Craig A. Miller, Ph.D.
Program Leader and Principal Investigator
Human Dimensions Research Program
Illinois Natural History Survey

Prepared by
Laura A. Schweizer, Brent D. Williams,
James M. Crain, and Craig A. Miller

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HUNTER PARTICIPATION, HARVEST, AND HUNTING
BEHAVIOR DURING THE 2015 ILLINOIS
CONSERVATION ORDER SEASON

JOB COMPLETION REPORT

WILDLIFE HARVEST AND
HUMAN DIMENSIONS RESEARCH PROGRAM

STATE OF ILLINOIS

PROJECT NUMBER: W-112-R-24
STUDY 101
JOB NO. 101.6

Prepared by
Laura A. Schweizer, Brent D. Williams,
James M. Crain, and Craig A. Miller
Illinois Natural History Survey
Champaign, IL
September 1, 2015

Federal Aid in Wildlife Restoration
W-112-R-24

Illinois Department of Natural Resources

Wayne Rosenthal, Director
Illinois Department of Natural Resources

Mark G. Alessi, Acting Chief
Division of Wildlife Resources

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ABSTRACT

Harvest of light geese (*Chen caerulescens*, *Chen rossii*) during the 2015 Illinois Light Goose Conservation Order season was estimated at 123,944. An estimated 2,599 hunters participated in the 2015 Illinois Light Goose Conservation Order season. Hunters spent an estimated 30,360 days afield during 2015, and the majority (53%) of the snow goose harvest occurred during the month of February. Due to changes in sampling of addresses and calculation of estimates, comparisons should not be made to years 2013 and before in figures and tables. Addresses were sampled from Harvest Information Program (HIP) registrants who reported they hunted snow and other light geese (including Ross' and Blue geese) during the 2014 Light Goose Conservation Order seasons. Electronic calls were used by 78% of hunters, 77% used unplugged shotguns, and 60% reported hunting between sunset and ½ hour after sunset. Forty-five percent of snow goose hunters indicated an increase in effort over the past five years, and 39% of hunters perceived an increase in snow goose abundance during the regular goose seasons. A majority of the hunters (80%) were interested in snow goose hunting to extend their hunting season.

OBJECTIVE

To survey hunters participating in the Conservation Order Light Goose (hereafter, spring) seasons to determine their activities and harvests in Illinois, as well as their opinions toward specific waterfowl management issues.

METHODS

The sampling method for this survey changed in 2014 and we recommend closely examining confidence intervals when making any comparisons of results between the different sampling methods. The 2014 Harvest Information Program (HIP) registration was the first year in which hunters were asked if they hunted snow geese during the Conservation Order Light Goose seasons the previous year. The addition of this question allowed for more precise sampling of likely participants during the 2015 Illinois Conservation Order Light Goose seasons than a random sample of Illinois State Waterfowl Stamp purchasers, as was previously done (Williams et al. 2013). A sample of 3,000 waterfowl hunters was randomly selected from HIP registrants who

reported they hunted snow geese during the 2014 Conservation Order Light Goose seasons in Illinois. Potential Conservation Order Light Goose (*Chen caerulescens*, *Chen rossii*) hunters were mailed an 8-page mail-back questionnaire (Appendix A) and cover letter (Appendix B) 10 April 2015. Non-respondents were mailed a thank you/reminder postcard (Appendix C) 29 April 2015, a second copy of the questionnaire and cover letter (Appendix D) 14 May 2015, and another thank you/reminder postcard 04 June 2015. The number of snow goose hunters ($Hunt_{sp}$), days afield ($Days_{sp}$), birds crippled but not retrieved ($Crip_{sp}$) and harvest ($Harv_{sp}$) were calculated as follows:

$$\begin{aligned}
 Hunt_{sp} &= Hunt_r \frac{L_t}{n}, & Days_{sp} &= Days_r \frac{L_t}{n}, \\
 Crip_{sp} &= Crip_r \frac{L_t}{n}, & Harv_{sp} &= Harv_r \frac{L_t}{n}
 \end{aligned}$$

Where:

$Hunt_r$ = number of respondents to the 2015 Illinois Spring Snow Goose Hunter Survey who reported hunting snow geese (adjustment for non-hunters is inherent),

L_t = total number of Harvest Information Program (HIP) registrants who indicated they hunted snow geese in Illinois during 2013-14 waterfowl hunting season.

n = number of respondents to the 2015 Illinois Spring Snow Goose Hunter Survey,

$Days_r$ = 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,

The 2015 estimates of number of hunters, days hunted, and snow geese harvested were based on 6,439 HIP registrants who reported they hunted during the 2014 Conservation order Light Goose seasons. Estimated snow goose harvest was not adjusted for reporting bias using 0.478 as has been done in previous years (Anderson et al. 1996). Ninety-five percent confidence intervals were calculated for number of hunters, days hunted, and geese harvested, as described in Lischka et al. (2006). We entered and analyzed data using SPSS

22.0 (IBM SPSS Inc. 2012). Due to changes in number of hunters sampled and calculation of estimates, comparisons to previous years' figures must be done with caution.

SEASON DATES AND BAG LIMITS

The 2015 spring goose season took place from 16 January to 31 March in the North Zone and from 1 February to 31 March in the Central, South Central, and South Zones. The season began in each zone the day after the regular Canada goose (*Branta canadensis*) season closed. Hunters during the spring light goose season were required to have a state duck stamp and hunting license, but were exempt from daily bag or possession limits. Hunters were permitted to use unplugged shotguns and electronic calls, and to hunt from half -hour before sunrise to half -hour after sunset; these liberalized regulations were not permitted during other waterfowl seasons.

RESULTS

Harvest Results

The questionnaire was undeliverable to 47 addresses, thus reducing our mailing list to 2,953 individuals. A total of 1,110 questionnaires were returned, of which 944 were considered usable for a 32% response rate. Less than one-fifth (19%) of respondents reported that they did not hunt during the regular waterfowl season (Figure 1). Slightly more than forty percent (40.4%) of respondents reported hunting snow geese during the 2015 Conservation Order Light Goose season (Figure 2). Nearly all (97.4%) snow goose hunters indicated they also hunted during the regular waterfowl seasons (Figure 3). Almost 60% of those who hunted reported they hunted snow geese every year (Figure 4), and more than half (55.7%) hunted the Central Zone most often for snow geese (Figure 5).

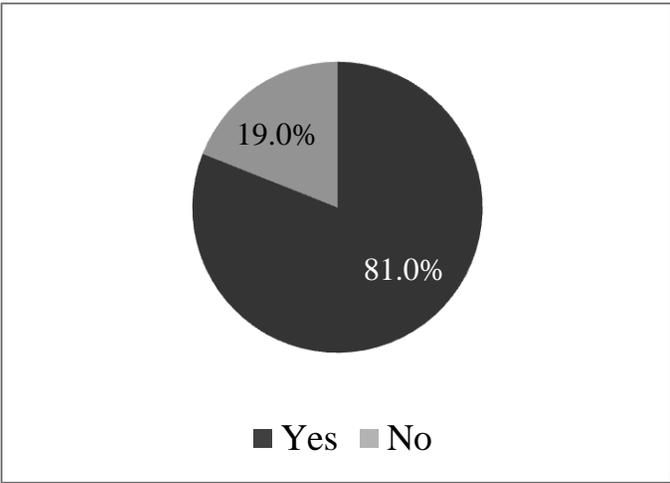


Figure 1. Percentage of survey respondents who hunted waterfowl in Illinois during the 2014-15 waterfowl season ($n=934$).

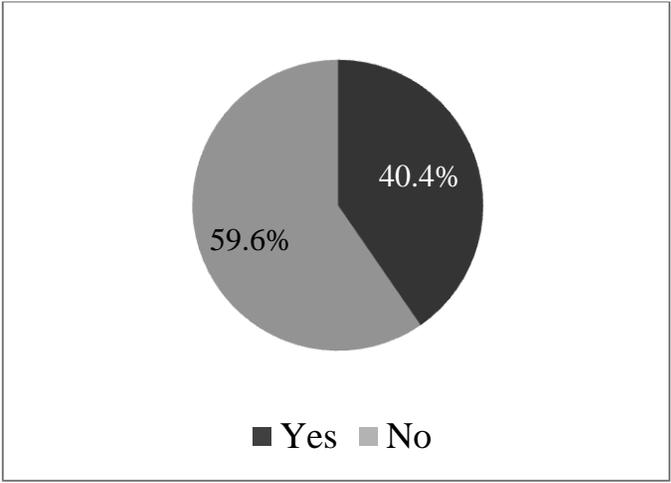


Figure 2. Percentage of survey respondents who hunted regular snow geese in Illinois during the 2015 Conservation Order Light Goose season ($n=944$).

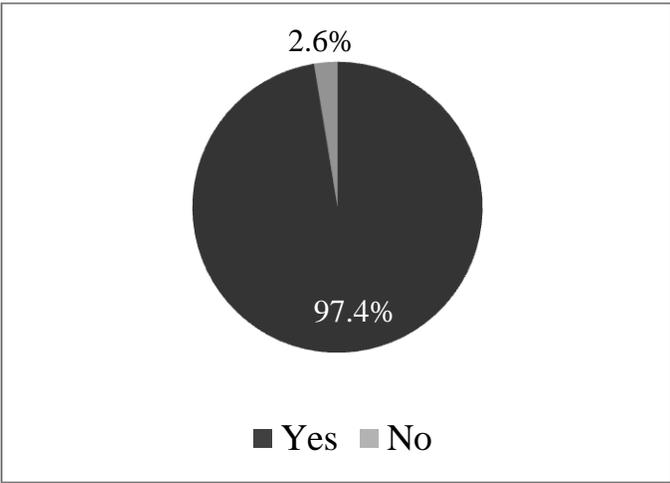


Figure 3. Percentage of snow goose hunters who hunted waterfowl in Illinois during the 2014-15 regular waterfowl season ($n=402$).

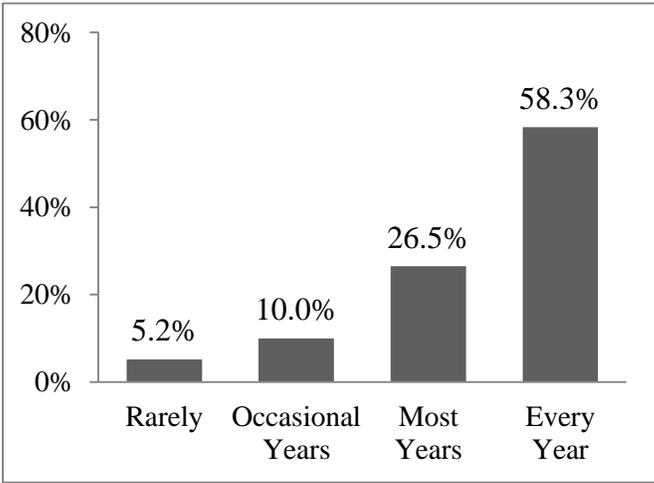


Figure 4. How often snow goose hunters hunt the Conservation Order Light Goose season in Illinois ($n=381$).

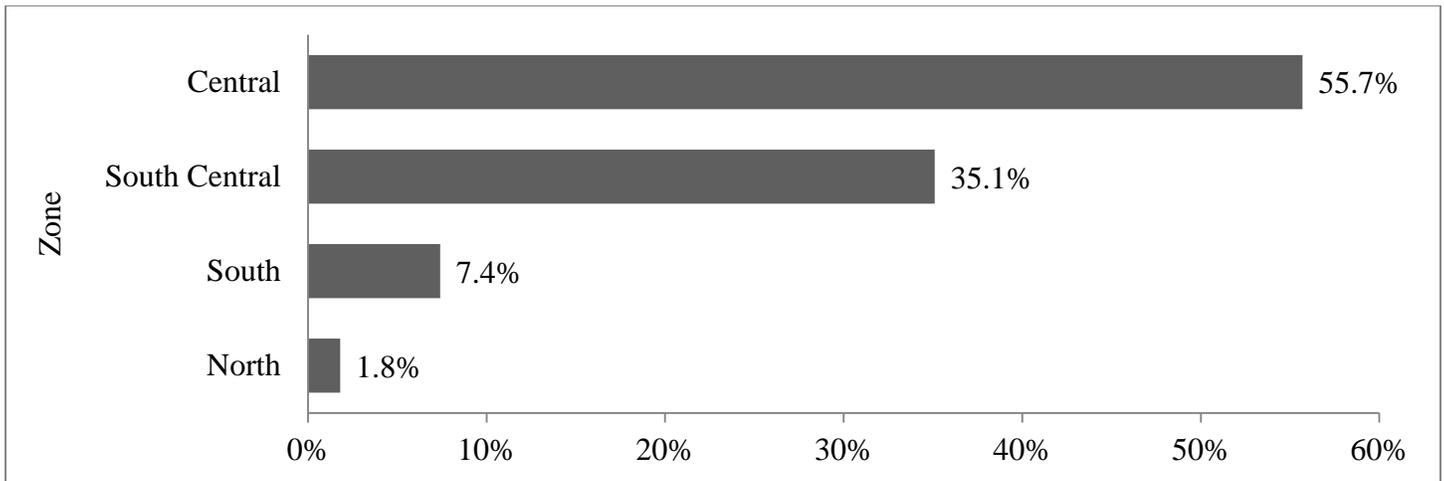


Figure 5. Zone hunted most often during the 2015 Conservation Order Light Goose season ($n=379$).

During the 2015 Illinois spring snow goose season, an estimated 2,599 snow goose participants hunted for 30,360 days and harvested 123,944 snow geese (Table 1). Of respondents who indicated hunting snow geese ≥ 1 day, 45% hunted 5 days or less (Figure 6). Seventeen percent of hunters reported not harvesting any snow geese, whereas 17% harvested ≥ 100 snow geese (Figure 7). More than half (53%) of the harvest occurred during February, with the remainder (47%) during March (Table 2). Mean harvest per hunter was 47.69 geese, and 57.14 geese per successful hunter (harvested ≥ 1 goose). When hunters who harvested >100 geese are excluded, mean geese harvested per hunter and geese per successful hunter, respectively, drop to 21.60 and 26.83 geese. A total of 5,491 snow geese were estimated to be crippled.

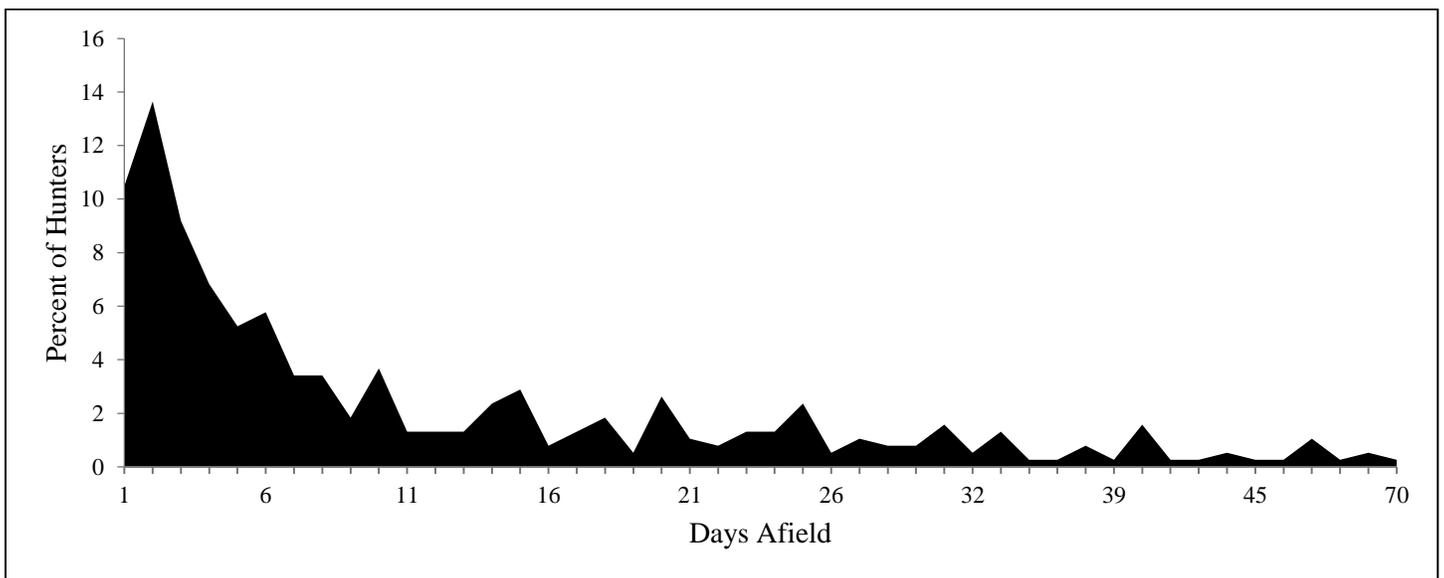


Figure 6. Distribution of days afield per hunter for Illinois' 2015 Conservation Order Light Goose season.

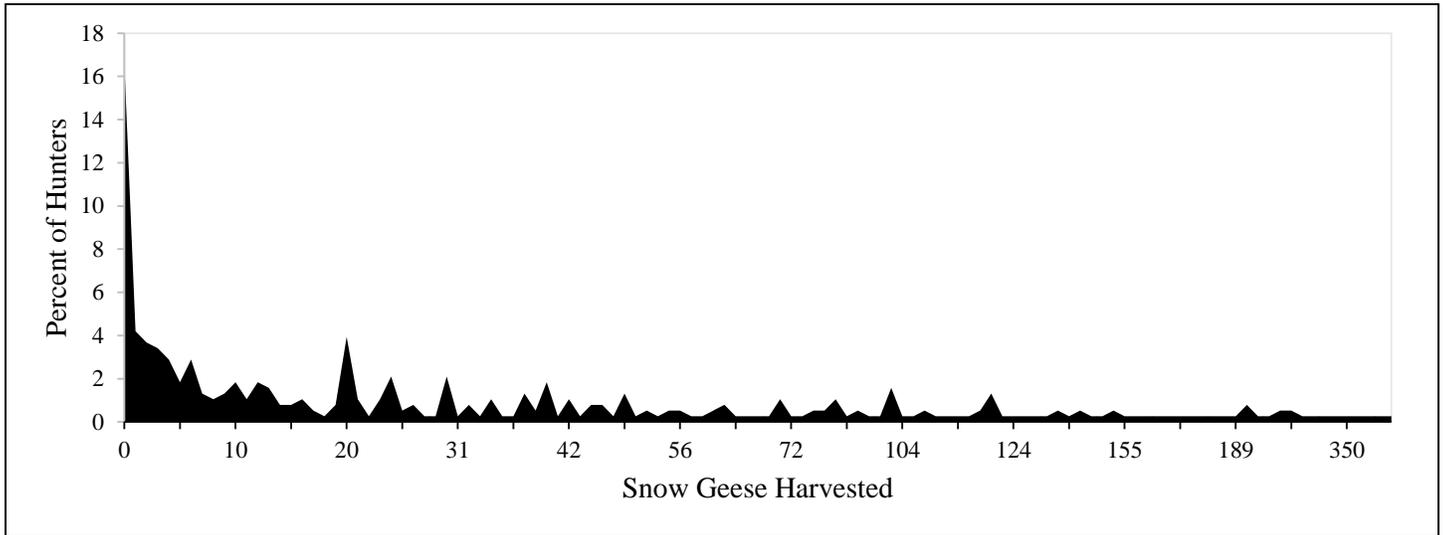


Figure 7. Distribution of snow geese harvested per hunter for Illinois’ 2015 Conservation Order Light Goose season.

Electronic calls were used by 79% of snow goose hunters, and 78% reported using an unplugged shotgun during the spring snow goose season. About sixty percent (59.6%) of hunters reported hunting between sunset and ½ hour after sunset (Table 3). Thirty-seven percent of hunters used magazine extensions when hunting snow geese (Figure 8), and 81% of them indicated it resulted in greater harvest (Figure 9). Snow goose hunters hunted most frequently on private land on which they had permission (77%), followed by private land owned by themselves or their family (26%) (Figure 10). The general locations in Illinois in which snow goose hunters live and concentrated their efforts is presented in Appendix E.

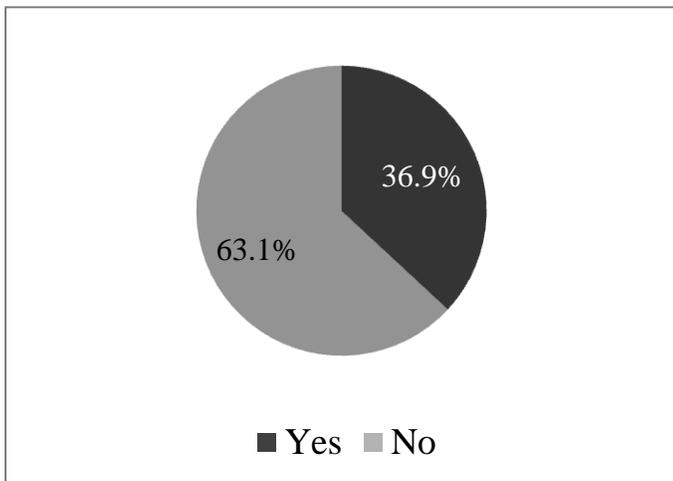


Figure 8. Hunters that used a magazine extension while hunting snow geese in 2015 ($n=379$).

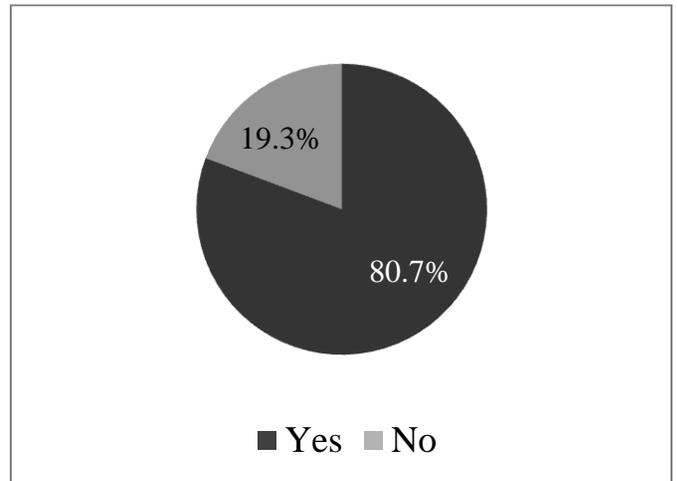


Figure 9. Did the extended magazine result in a greater harvest of snow geese? ($n=140$).

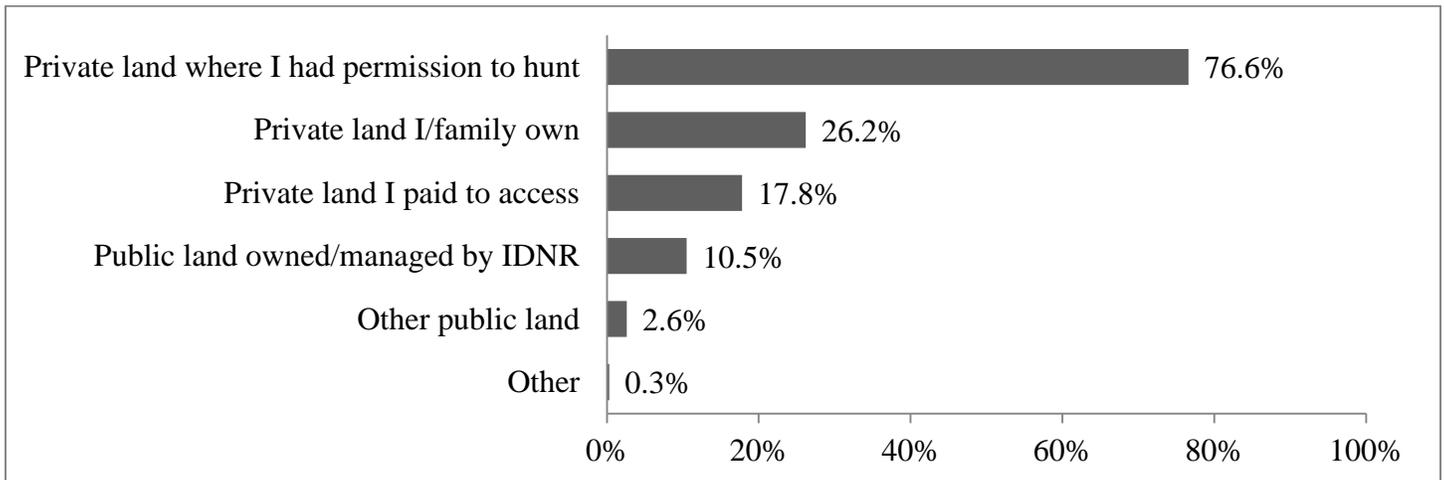


Figure 10. Type of land hunters hunt most often for snow geese ($n=381$).

*Percentages do not add up to 100 because some hunters indicated they hunted multiple types of land.

Satisfaction with the 2015 Conservation Order Light Goose Season

Hunters who hunted snow geese during the 2015 Conservation Order seasons had either increased their snow goose hunting efforts (46.9%) or reported no change (28.4%) in their effort (Table 4). Sixty-one percent of snow goose hunters reported being most satisfied with the number of snow geese they saw during the 2015 spring season, followed by 53% that were satisfied with the number of snow geese that migrated through the areas they hunted. Hunters were least satisfied with the number of snow geese they harvested (51.9%) and the amount of shooting they got in (47.9%) (Table 5). Almost forty percent (39.1%) of hunters perceived an increase in the number of snow geese during the spring snow goose seasons over the past 5 years (Table 6.) However, 50.3% of hunters stated that the number of snow geese they harvested decreased over the past 5 years (Table 7). When asked to compare their hunting skills with other hunters, a majority of those that did not hunt during the 2015 spring Conservation Order seasons labeled their skills as “Novice”, whereas most hunters labeled their skills as “Intermediate” (Table 8). A majority of respondents (64.1%) indicated they would prefer the 2016 spring snow goose season to extend into mid-April (Figure 11), and slightly less (60.3%) reported they would hunt during that time (Figure 12). When asked why hunters are interested in snow goose hunting, active hunters’ top reasons were to extend their hunting season (88.7%) and to protect the tundra (61.9%) (Table 9). The most common response of active hunters for what to do when a preferred waterfowl hunting area freezes was to hunt over fields (71.9%) or to break ice (65.4%) (Table 10). A majority (85.3%) of this year’s hunters

agreed that waterfowl hunting is one of the most important activities in their life, whereas 60.7% of those that did not hunt this year agreed with that statement (Table 11).

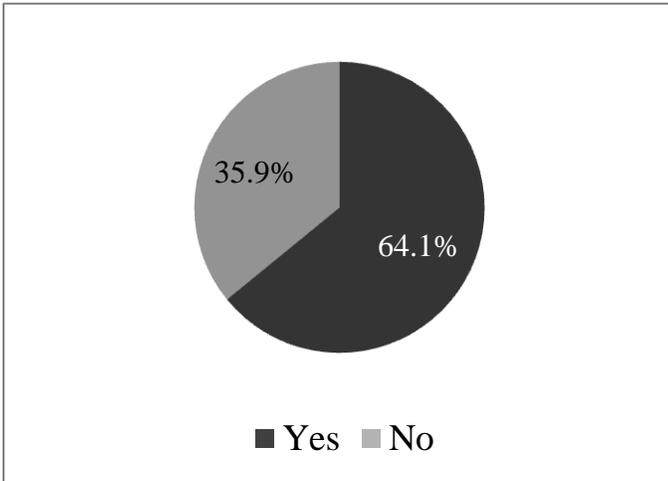


Figure 11. Hunters who would want the 2016 Conservation Order Light Goose season to be extended into mid-April ($n=841$).

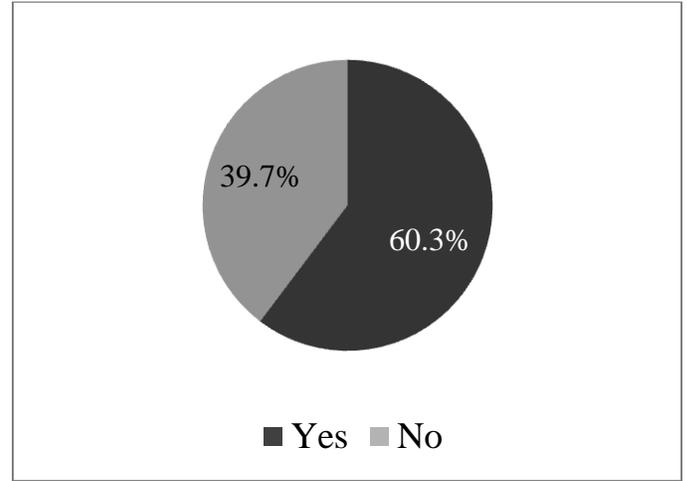


Figure 12. Hunters who would hunt snow geese in April if the season was extended ($n=832$).

Conservation Order seasons goose hunters were younger ($M = 42$ years old) than non-hunters ($M = 46$ years old), almost all (99.7%) were male (Figure 13), and most (84%) have introduced someone to snow goose hunting (Figure 14). These hunters have been hunting snow geese during the spring in Illinois for an average of 6.8 years, and have hunted regular waterfowl in Illinois for an average of 23.8 years. About ten percent (9.5%) of snow goose hunters used a guide or outfitter while hunting snow geese during the 2015 season (Figure 15). Over a quarter of snow goose hunters used spinning wing decoys, at an average of 5 decoys per hunter (Figure 16), and nearly half (49%) used a moving multi-decoy system (Vortex, etc.) to hunt snow geese (Figure 17). When asked what type(s) of snow goose decoys they use during a typical hunt: 84% had full-body decoys, 81% had shell decoys, and 81% had rags/sock decoys (Table 12).

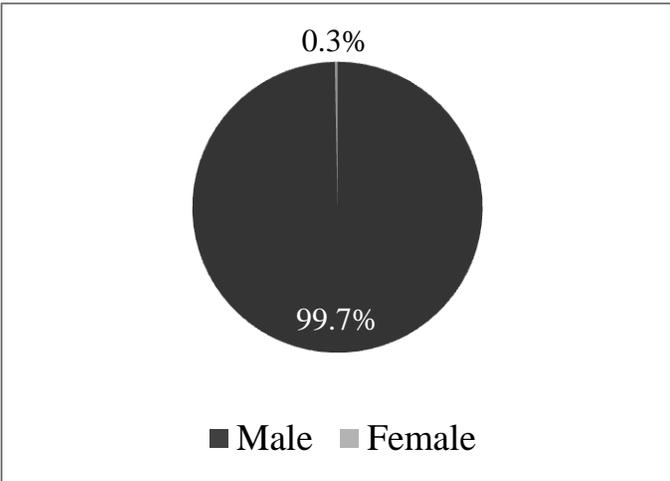


Figure 13. Gender of hunters ($n=381$).

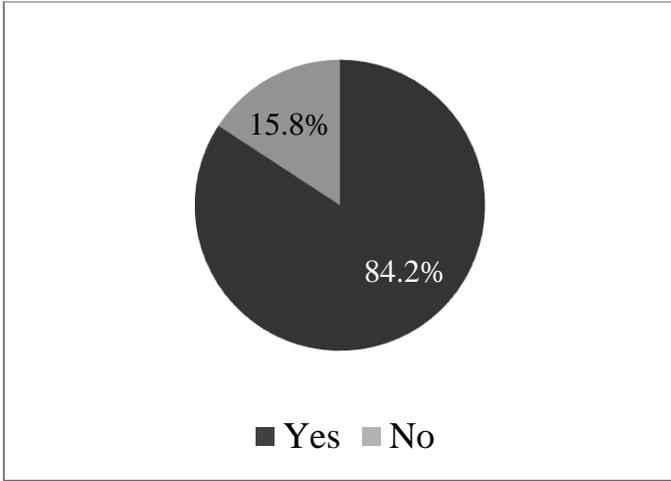


Figure 14. Hunters that have introduced someone to snow goose hunting ($n=380$).

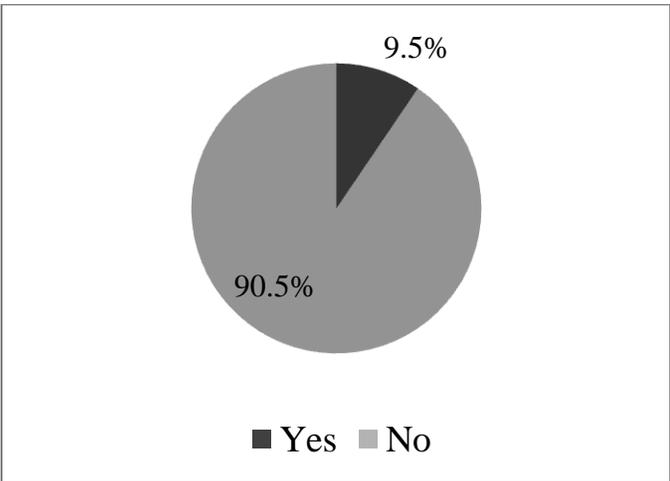


Figure 15. Hunters that used a guide or outfitter while hunting snow geese during 2015 ($n=380$).

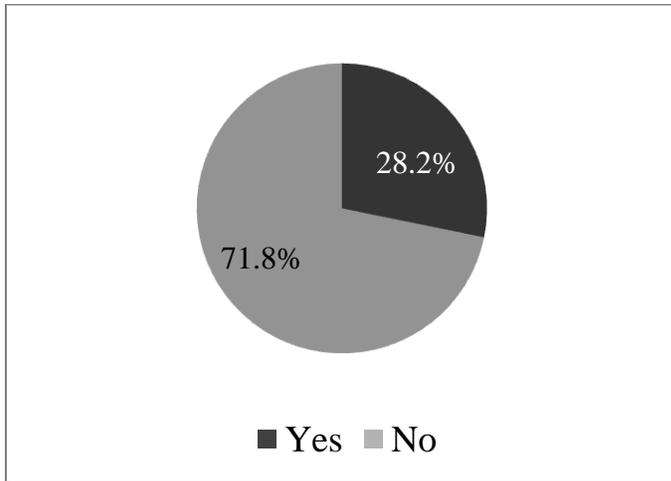


Figure 16. Hunters that used spinning-wing decoys ($n=376$).

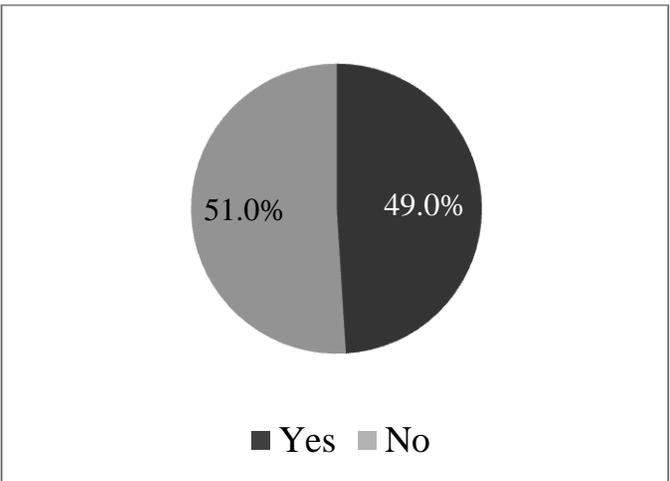


Figure 17. Hunters that used a moving multi-decoy system (Vortex, etc.) to hunt snow geese ($n=367$).

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Table 1. Estimates of the number of hunters, days afield, and harvest of snow geese from 2000-2015 during the Illinois Conservation Order Light Goose season.

| | Hunters | Days Afield | Harvest |
|------|----------------------------|-----------------|-------------------------------|
| 2000 | 865 | 6,643 | 7,612 |
| 2001 | 4,665 | 32,634 | 36,830 |
| 2002 | 5,107 | 31,204 | 17,875 |
| 2003 | 3,111 | 27,177 | 30,564 |
| 2004 | 5,976 | 44,306 | 37,189 |
| 2005 | 5,689 | 42,349 | 38,183 ^b |
| 2006 | 5,543 | 53,154 | 59,799 ^b |
| 2007 | 5,962 ± 1,147 ^a | 39,170 ± 15,221 | 44,514 ± 25,794 |
| 2008 | 6,409 ± 1,046 ^a | 50,471 ± 10,331 | 97,021 ± 40,811 |
| 2009 | 4,663 ± 950 ^a | 33,947 ± 8,403 | 85,635 ± 36,479 |
| 2010 | 3,702 ± 820 ^a | 25,581 ± 6,297 | 65,987 ± 42,519 |
| 2011 | 3,825 ± 826 ^a | 30,753 ± 8,902 | 66,406 ± 30,962 |
| 2012 | 5,726 ± 943 ^a | 51,763 ± 11,376 | 87,558 ± 41,316 |
| 2013 | 4,477 ± 1,192 ^a | 45,724 ± 16,642 | 73,495 ± 52,191 |
| 2014 | 1,962 ± 188 ^a | 21,170 ± 3,151 | 82,161 ± 22,291 ^b |
| 2015 | 2,599 ± 206 ^a | 30,360 ± 3,213 | 123,944 ± 29,265 ^b |

^a 95% confidence intervals

^b Harvest data are estimates for Conservation Order Season only.

Table 2. Estimated snow goose harvest by month during the Illinois Conservation Order Light Goose season from 2005-2015^a.

| | January ^{b,c} | February | March |
|------|------------------------|----------|--------|
| 2005 | 824 ^d | 29,008 | 8,351 |
| 2006 | 67 | 43,815 | 15,917 |
| 2007 | 2,006 | 32,564 | 9,944 |
| 2008 | 295 | 61,376 | 35,351 |
| 2009 | 77 | 58,761 | 26,797 |
| 2010 | 249 | 44,755 | 20,983 |
| 2011 | - | 48,323 | 18,082 |
| 2012 | 55 | 60,625 | 26,878 |
| 2013 | 476 ^e | 45,080 | 22,233 |
| 2014 | 97 | 39,969 | 42,094 |
| 2015 | 20 | 65,454 | 58,470 |

^a Monthly harvest data before 2004 are not available.

^b January estimates include only North Zone harvest unless otherwise noted.

^c Harvest data are estimates for Conservation Order Season only.

^d January harvest in 2005 also included Central Zone harvest.

^e Revised from reported 2013-14 harvest.

Table 3. Methods utilized by hunters to hunt snow geese during the 2015 hunting season ($n=381$).

| Method | Number of Hunters | Percentage of Hunters (%) | Estimated Total Hunters in IL |
|--|-------------------|---------------------------|-------------------------------|
| Electronic calls | 301 | 79.0 | 2,053 |
| Unplugged shotguns | 297 | 78.0 | 2,026 |
| Hunting from sunset to 1/2 hour after sunset | 227 | 59.6 | 1,548 |

Table 4. Change in Illinois hunters' spring snow goose hunting effort over the past 5 years ($n=380$).

| | Number of Hunters | Percentage of Hunters (%) |
|------------------------|-------------------|---------------------------|
| Decreased Considerably | 15 | 3.9 |
| Decreased Moderately | 32 | 8.4 |
| Decreased Slightly | 47 | 12.4 |
| No Change | 108 | 28.4 |
| Increased Slightly | 81 | 21.3 |
| Increased Moderately | 58 | 15.3 |
| Increased Considerably | 39 | 10.3 |

Table 5. Satisfaction with the 2015 Conservation Order Light Goose season in Illinois.

| | Hunters* | | | | Non-Hunters | | | |
|--|----------|----------------|----------|-------------|-------------|----------------|----------|-------------|
| | <i>n</i> | Dissatisfied % | Unsure % | Satisfied % | <i>n</i> | Dissatisfied % | Unsure % | Satisfied % |
| Number of snow geese you saw. | 379 | 24.5 | 14.0 | 61.5 | 365 | 28.5 | 31.0 | 40.5 |
| Mid-season matched peak of snow goose migration. | 373 | 29.5 | 37.5 | 33.0 | 348 | 27.0 | 49.7 | 23.3 |
| Amount of shooting you got in. | 378 | 47.9 | 11.1 | 41.0 | 336 | 53.6 | 30.7 | 15.8 |
| Number of snow geese that migrated through areas you hunted. | 376 | 30.5 | 16.8 | 52.7 | 340 | 32.6 | 35.9 | 31.5 |
| Amount of time you spent snow goose hunting. | 378 | 38.1 | 17.5 | 44.4 | 340 | 54.1 | 35.0 | 10.9 |
| Number of snow geese you harvested. | 376 | 51.9 | 12.5 | 35.6 | 333 | 61.0 | 29.4 | 9.6 |
| The weather during the Conservation Order season. | 378 | 42.9 | 16.1 | 41.0 | 346 | 28.6 | 42.8 | 28.6 |

*People who reported they hunted snow geese 1 day or more in Illinois during the 2015 spring season.

Table 6. Illinois hunter comparison between the number of snow geese observed during 2014-15 to the last 5 years ($n=380$).

| | Number of Hunters | Percentage of Hunters (%) |
|------------------------|-------------------|---------------------------|
| Decreased Considerably | 29 | 7.6 |
| Decreased Moderately | 37 | 9.7 |
| Decreased Slightly | 79 | 20.8 |
| No Change | 86 | 22.6 |
| Increased Slightly | 59 | 15.5 |
| Increased Moderately | 64 | 16.8 |
| Increased Considerably | 26 | 6.8 |

Table 7. Illinois hunter comparison between the number of snow geese harvested during 2014-15 to the last 5 years ($n=380$).

| | Number of Hunters | Percentage of Hunters (%) |
|------------------------|-------------------|---------------------------|
| Decreased Considerably | 55 | 14.5 |
| Decreased Moderately | 61 | 16.1 |
| Decreased Slightly | 75 | 19.7 |
| No Change | 88 | 23.2 |
| Increased Slightly | 52 | 13.7 |
| Increased Moderately | 33 | 8.7 |
| Increased Considerably | 16 | 4.2 |

Table 8. Ratings of skills compared to other hunters during the 2015 Conservation Order Light Goose season in Illinois.

| | Hunters* | | | | Non-Hunters | | | |
|---------------------------------------|----------|----------|----------------|----------|-------------|----------|----------------|----------|
| | <i>n</i> | Novice % | Intermediate % | Expert % | <i>n</i> | Novice % | Intermediate % | Expert % |
| Skill calling in snow geese. | 380 | 31.3 | 53.9 | 14.7 | 463 | 69.8 | 26.8 | 3.5 |
| Snow geese harvested per shots taken. | 378 | 10.3 | 60.3 | 29.4 | 439 | 55.1 | 35.8 | 9.1 |
| Overall skill as a snow goose hunter. | 379 | 12.9 | 60.4 | 26.6 | 456 | 55.3 | 39.3 | 5.5 |

*People who reported they hunted snow geese 1 day or more in Illinois during the 2015 spring season.

Table 9. Reasons for wanting to hunt snow geese during the spring snow goose season.

| | Hunters* | | Non-Hunters | |
|-----------------------------|----------|----------------|-------------|----------------|
| | Number | Percentage (%) | Number | Percentage (%) |
| Extend my hunting season | 338 | 88.7 | 282 | 50.1 |
| Reduce the population | 235 | 61.7 | 200 | 35.5 |
| Protect the tundra | 236 | 61.9 | 174 | 30.9 |
| No bag limits | 215 | 56.4 | 179 | 31.8 |
| To eat them | 210 | 55.1 | 172 | 30.6 |
| Get to use electronic calls | 120 | 31.5 | 72 | 12.8 |
| Other | 47 | 12.3 | 20 | 3.6 |

*People who reported they hunted snow geese 1 day or more in Illinois during the 2015 spring season.

Table 10. Response to frozen water in a preferred waterfowl hunting area.

| | Hunters* | | Non-Hunters | |
|------------------------------------|----------|----------------|-------------|----------------|
| | Number | Percentage (%) | Number | Percentage (%) |
| Hunt over fields | 274 | 71.9 | 260 | 46.2 |
| Bust ice | 249 | 65.4 | 209 | 37.1 |
| Set decoys on ice | 166 | 43.6 | 129 | 22.9 |
| Hunt along rivers or streams | 151 | 39.6 | 125 | 22.2 |
| Use aerators/pump water | 156 | 40.9 | 114 | 20.2 |
| Stop hunting | 63 | 16.5 | 157 | 27.9 |
| Hunt over deep water/cooling lakes | 79 | 20.7 | 79 | 14.0 |
| Move to another part of Illinois | 57 | 15.0 | 43 | 7.6 |
| Go hunt in another state | 41 | 10.8 | 55 | 9.8 |

*People who reported they hunted snow geese 1 day or more in Illinois during the 2015 spring season.

Table 11. Attitudes toward waterfowl hunting.

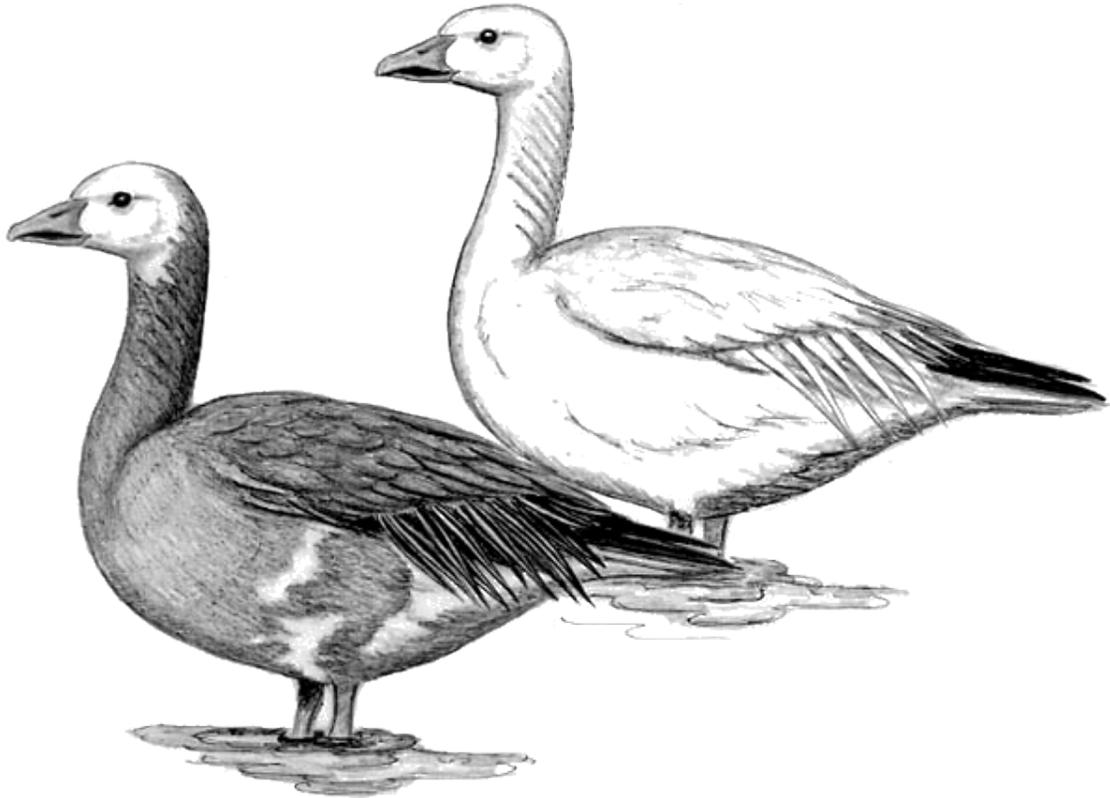
| | Hunters* | | | | Non-Hunters | | | |
|---|----------|------------|----------|---------|-------------|------------|----------|---------|
| | <i>n</i> | Disagree % | Unsure % | Agree % | <i>n</i> | Disagree % | Unsure % | Agree % |
| Waterfowl hunting is one of the most important activities in my life. | 380 | 11.8 | 2.9 | 85.3 | 512 | 28.9 | 10.4 | 60.7 |
| I spend a lot of time in the off-season planning for waterfowl hunting. | 380 | 15.0 | 6.3 | 78.7 | 513 | 41.9 | 7.0 | 51.1 |
| I plan vacation time around waterfowl seasons. | 376 | 19.9 | 4.8 | 75.3 | 506 | 48.6 | 6.5 | 44.9 |
| Waterfowl hunting determines much of my lifestyle. | 377 | 23.6 | 8.2 | 68.2 | 511 | 51.1 | 10.0 | 38.9 |
| I spend a lot of time before the season scouting the area I will hunt. | 377 | 25.5 | 5.8 | 68.7 | 510 | 49.8 | 8.4 | 41.8 |
| I would rather go waterfowl hunting than do any other recreation. | 379 | 18.5 | 8.7 | 72.8 | 513 | 46.4 | 10.5 | 43.1 |

*People who reported they hunted snow geese in Illinois during the 2015 spring season.

Table 12. Number of decoys used by Illinois snow goose hunters during the 2014-15 hunting season (*n*=381).

| Decoy Type | Number of Hunters | % of Total Hunters | Number of Decoys Used (by % of hunters) | | | |
|--------------------|-------------------|--------------------|---|-------|----------|-------|
| | | | 0 | 1-500 | 501-1000 | 1001+ |
| Full-bodied decoys | 321 | 84.3 | 19.0 | 55.8 | 10.0 | 15.3 |
| Shells | 309 | 81.1 | 21.7 | 73.2 | 2.9 | 2.3 |
| Rags/sock decoys | 308 | 80.8 | 13.6 | 60.0 | 14.9 | 11.4 |
| Kites/Flags | 292 | 76.6 | 17.8 | 80.4 | 0.7 | 1.0 |
| Silhouettes | 245 | 64.3 | 48.6 | 46.2 | 2.0 | 3.3 |
| Floater decoys | 242 | 63.5 | 54.5 | 43.0 | 1.2 | 1.2 |

Illinois Spring Snow Goose Hunter Survey 2015 Season



Illinois Department of Natural Resources
Division of Wildlife Resources
and
Illinois Natural History Survey



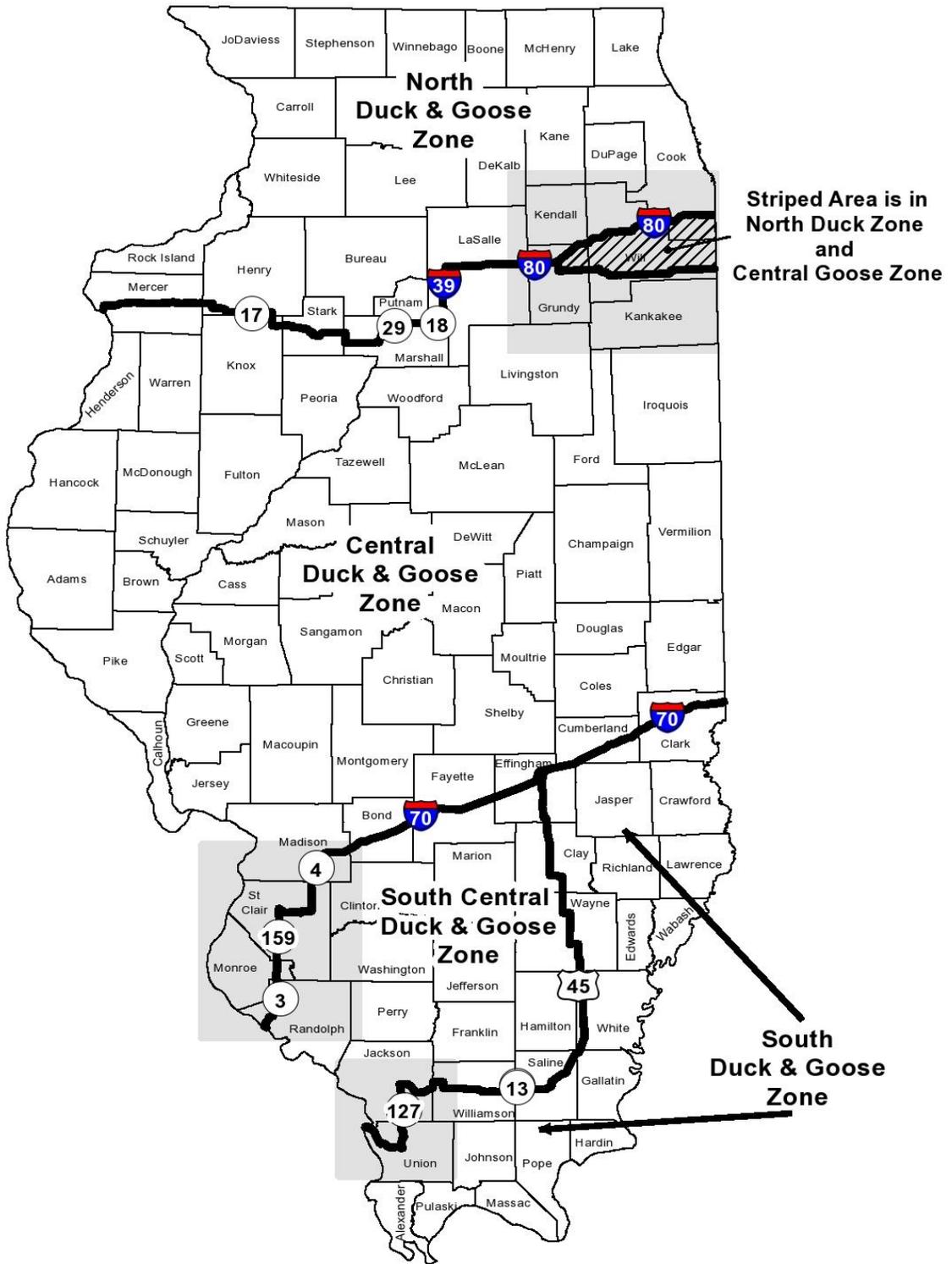
The Department of Natural Resources is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the Illinois Compiled Statutes, The Wildlife Code, Chapter 520. Disclosure of information is voluntary. This study is funded by the federal Wildlife Restoration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

Please refer to the graphics on this page to answer the question 6 in Section 1.



Section 1. Conservation Order (Spring) Snow Goose Hunting Effort and Harvest. Please take a few minutes to complete the following questionnaire to help us evaluate the recent **spring Conservation Order snow goose hunting season even if you did not hunt snow geese. All questions pertain to Illinois hunting. Please note: "Snow geese" also includes Ross' and Blue geese.**

1. Did you hunt snow geese in Illinois during the 2015 Conservation Order (spring snow goose) season (North Zone: **Jan. 16-March 31, 2015**; Central, South Central, and South Zones: **Feb. 1- March 31, 2015**)? **Do not include** hunting snow geese during the regular Canada goose season. (Please check **one**.)
 Yes No (Please skip to **Section 2**)

2. Which of the following best describes how often you hunt **spring snow goose** in Illinois?
 Every year Most years Occasional years Rarely

3. In which zone did you **hunt snow geese most often** during the 2015 **spring snow goose season**? (Please check **one**.)
 North Zone Central Zone South Central Zone South Zone

4. On which of the following types of land did you hunt snow geese during the 2015 **spring snow goose season**? (Please check **all** that apply.)
 Public land owned/managed by IDNR Other public land
 Private land I/family own Private land where I had permission to hunt
 Private land I paid to access Other (Please identify): _____

5. Did you use a guide or outfitter while hunting snow geese during the 2015 **spring snow goose season**?
 Yes No

6. Please indicate **your** effort- not your hunting party's effort- and harvest in the following table. **Include only harvest that occurred during the spring snow/blue and Ross' goose season; do not include snow goose harvest during the regular Canada goose seasons.** Report the counties in which you hunted, number of days you hunted, and geese harvested for the time period in which you hunted snow geese. Include only geese you harvested and days you hunted in Illinois. Count part of 1 day as 1 day. **Please refer to the count/zone map on the inside cover to answer this question.**

| | County hunted | Days hunted | Geese harvested | Geese hit, but not retrieved |
|-----------------------|---------------|-------------|-----------------|------------------------------|
| January (North only): | | | | |
| February: | | | | |
| March: | | | | |

7. Please indicate which of the following methods you used to hunt snow geese during the **2015 spring snow goose season**? (Select **all that apply**)

Electronic calls Unplugged shotgun Hunting from sunset to 1/2 hour after sunset

8. Did you use a magazine extension during the **spring snow goose season**? Yes No

8a. If "Yes," did the extended magazine result in a greater harvest of geese? Yes No

9. Approximately how many of each of the following types of decoys do you use during a typical hunt?

| | Number of decoys used | | | | | |
|--------------------|-----------------------|-------|---------|---------|----------|-------|
| | None | 1-100 | 101-250 | 251-500 | 501-1000 | 1000+ |
| Kites/Flags | | | | | | |
| Rags/sock decoys | | | | | | |
| Shells | | | | | | |
| Full-bodied decoys | | | | | | |
| Floater decoys | | | | | | |
| Silhouettes | | | | | | |

10. Did you use a **spinning-wing decoy** to hunt snow geese? _____ Yes _____ No (**skip to question 11**)

10a. If “Yes,” how many spinning-wing decoys did you typically use? _____ decoys

11. Did you use a moving multi-decoy system (**Vortex, etc.**) to hunt snow geese? _____ Yes _____ No

12. How has your spring snow goose hunting effort changed over the past 5 years? Please circle the number that matches your response.

| Decreased Considerably | Decreased Moderately | Decreased Slightly | No Change | Increased Slightly | Increased Moderately | Increased Considerably |
|---------------------------|-------------------------|-----------------------|-----------|-----------------------|-------------------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

13. How does the number of snow geese you saw during the spring snow goose season compare to the last 5 years? Please circle the number that matches your response.

| Decreased Considerably | Decreased Moderately | Decreased Slightly | No Change | Increased Slightly | Increased Moderately | Increased Considerably |
|---------------------------|-------------------------|-----------------------|-----------|-----------------------|-------------------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

14. How does the number of snow geese you harvested during the spring snow goose season compare to the last 5 years? Please circle the number that matches your response.

| Decreased Considerably | Decreased Moderately | Decreased Slightly | No Change | Increased Slightly | Increased Moderately | Increased Considerably |
|---------------------------|-------------------------|-----------------------|-----------|-----------------------|-------------------------|---------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Section 2. Hunting Skills and Satisfaction. Please tell us about yourself as a hunter and your satisfaction with the **most recent spring snow goose season(s)** by answering the following statements.

1. Please rate **your skills** in comparison to other hunters as they apply to snow goose hunting.

| | Novice | | | Intermediate | | | Expert |
|--------------------------------------|--------|---|---|--------------|---|---|--------|
| Skill calling in snow geese | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Snow geese harvested per shots taken | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Overall skill as a snow goose hunter | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

2. Please answer the following questions regarding your attitudes toward waterfowl hunting.

| | Strongly Disagree | Disagree | Slightly Disagree | Unsure | Slightly Agree | Agree | Strongly Agree |
|---|-------------------|----------|-------------------|--------|----------------|-------|----------------|
| Waterfowl hunting is one of the most important activities in my life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I spend a lot of time in the off-season planning for waterfowl hunting. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I plan vacation time around waterfowl seasons. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Waterfowl hunting determines much of my lifestyle. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I spend a lot of time before the season scouting the area I will hunt. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I would rather go waterfowl hunting than do any other recreation. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

3. What do you do when water in your preferred waterfowl hunting area freezes? (Please check **all that apply.**)

- Hunt along rivers or streams
 Hunt over fields
 Go hunt in another state
 Move to another part of Illinois
 Bust ice
 Use aerators/pump water
 Hunt over deep water/cooling lakes
 Set decoys on ice
 Stop hunting

4. Please identify why you're interested in hunting snow geese during the spring snow goose season. (Please check **all that apply.**)

- No bag limits
 Reduce the population
 Get to use electronic calls
 To protect the tundra
 Extend my hunting season
 To eat them
 Other (Please identify) _____

5. Please rate your **SATISFACTION with the 2015 spring Conservation Order (snow goose) season in Illinois** for each of the following by circling the number that matches your response.

| | Very Dissatisfied | Dissatisfied | Unsure | Satisfied | Very Satisfied |
|--|-------------------|--------------|--------|-----------|----------------|
| Number of snow geese you saw. | 1 | 2 | 3 | 4 | 5 |
| Mid-season matched peak of snow goose migration. | 1 | 2 | 3 | 4 | 5 |
| Amount of shooting you got in. | 1 | 2 | 3 | 4 | 5 |
| Number of snow geese that migrated through areas you hunted. | 1 | 2 | 3 | 4 | 5 |
| Amount of time you spent snow goose hunting. | 1 | 2 | 3 | 4 | 5 |
| Number of snow geese you harvested. | 1 | 2 | 3 | 4 | 5 |
| Weather during the season. | 1 | 2 | 3 | 4 | 5 |

6. The 2015 spring snow goose season ends March 31st, but regulations for 2015 allow the season to be extended to mid-April. Would you want the season to be extended into mid-April?

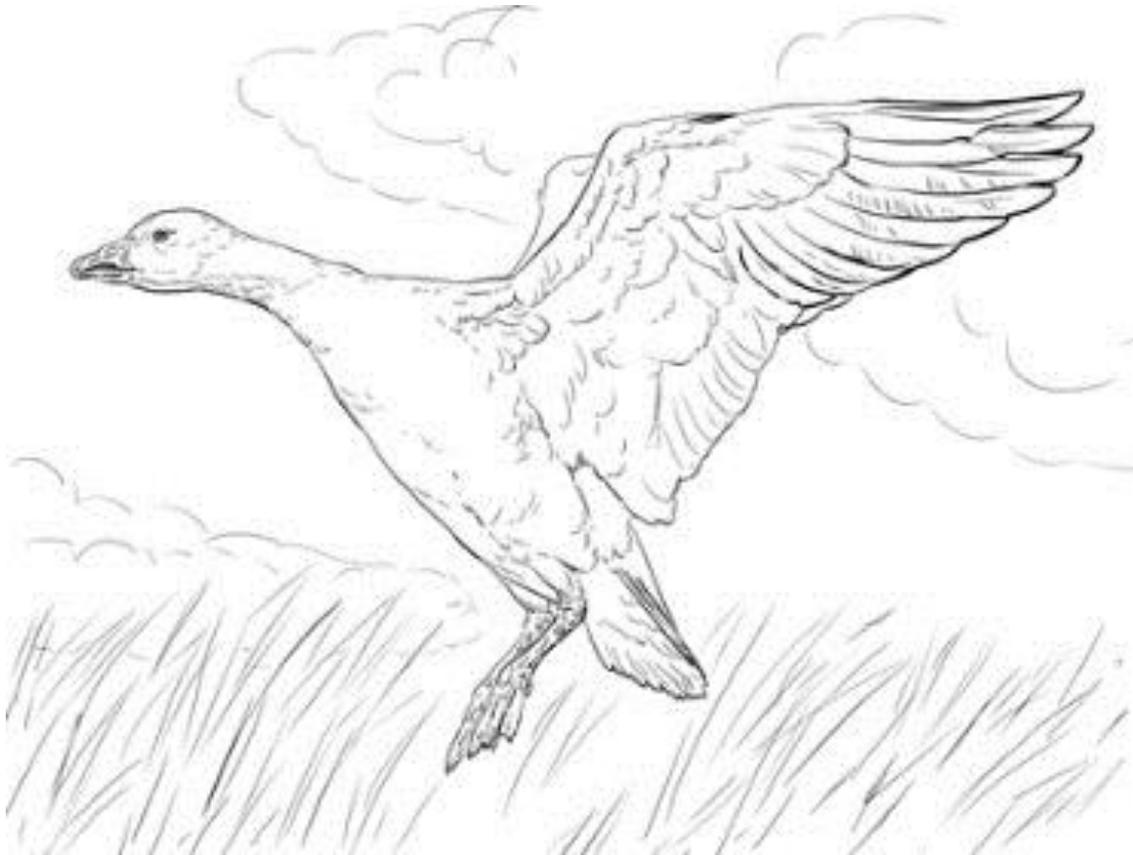
- Yes No

7. If the season was extended, would you hunt snow geese in April? Yes No

Section 3. Background Information. The following questions allow us to understand more about the people involved in snow goose hunting in Illinois. All responses are kept confidential.

1. How many years have you been waterfowl hunting in Illinois? _____ years
2. How many years have you been hunting during the **spring snow goose season** in Illinois? _____ years
3. Have you ever introduce someone to snow goose hunting?
_____ Yes _____ No
4. Did you hunt waterfowl (ducks and/or geese) in Illinois during the **2014-15 regular waterfowl seasons**?
_____ Yes _____ No
- 4a. If “Yes,” in which zone did you **hunt waterfowl most often during the 2014-15 regular waterfowl seasons**?
(Please check only one)
_____ North Zone _____ Central Zone _____ South Central Zone _____ South Zone
5. Please give your age. _____ years
6. What is your gender? _____ Male _____ Female
7. What is your county of residence? _____ County

Comments:



Federal Aid Project
funded by your purchase of
hunting equipment

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.



ILLINOIS NATURAL HISTORY SURVEY

Prairie Research Institute
University of Illinois at Urbana-Champaign

April 10, 2015

Dear Snow Goose Hunter,

You have been chosen as one of a select group of Illinois snow goose hunters to provide information about your snow goose hunting activities. Enclosed is a survey questionnaire regarding your snow goose hunting experiences in Illinois during the 2015 Conservation Order (spring) season. We ask you to please take a few moments to complete this questionnaire and return it in the envelope provided **even if you were not successful or did not hunt snow geese during the Conservation Order (spring) season.**

The information you and other selected hunters provide our biologists is vital for proper snow goose management and allows us to safeguard snow goose populations while maximizing hunting opportunities.

This survey is limited to those hunters selected. Please take a few minutes to complete the enclosed questionnaire and return it in the postage paid envelope provided.

You may access the results of this and other studies of hunters and hunting in Illinois at <http://www.inhs.illinois.edu/programs/hd/> or like us on Facebook at the Human Dimensions Research Program - Illinois Natural History Survey page to be notified when results are available.

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 your time and assistance.

Sincerely,

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

Craig A. Miller
Human Dimensions Research Program

1816 South Oak Street,
Champaign, Illinois 61820 USA

Appendix C



Dear Waterfowl Hunter,

Recently you were mailed a questionnaire about snow goose hunting during the Conservation Order (spring) season. 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

May 11, 2015

Dear Waterfowl Hunter,

You recently received a survey questionnaire requesting information about snow goose hunting activities during the 2015 Conservation Order (spring) season. If you recently returned your questionnaire, we thank you. If not, please take a few minutes to complete the enclosed questionnaire and return it in the envelope provided **even if you were not successful or did not hunt snow geese during the Conservation Order (spring) season.**

The information you and other selected hunters furnish our biologists is vital for proper waterfowl management and allows us to safeguard waterfowl populations while maximizing hunting opportunities.

Please take a few minutes to complete the portions of the questionnaire that pertain to you and return it in the envelope provided. If you have any questions please call 217-244-5121.

Thank you for your time and assistance.

Sincerely,

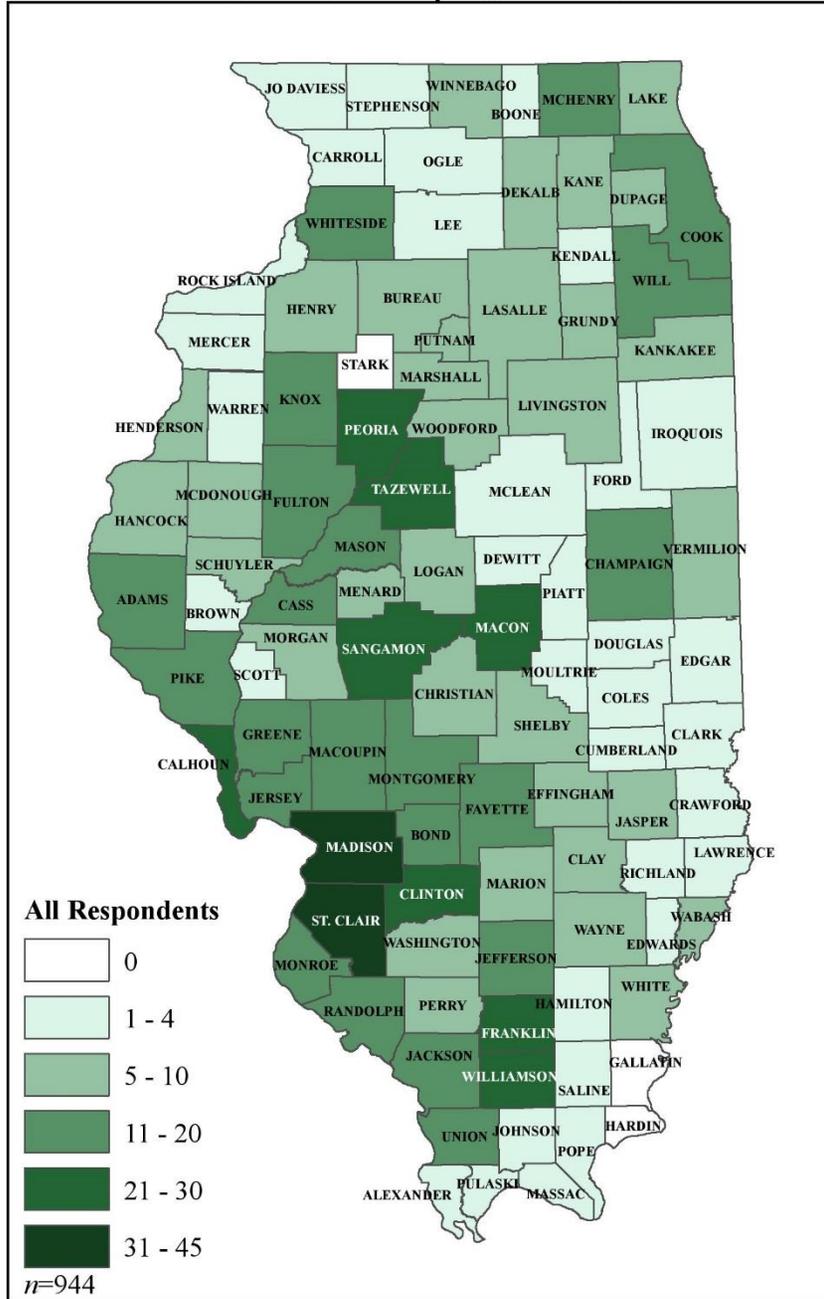
A handwritten signature in black ink, appearing to read "Craig A. Miller".

Craig A. Miller
Human Dimensions Research Program

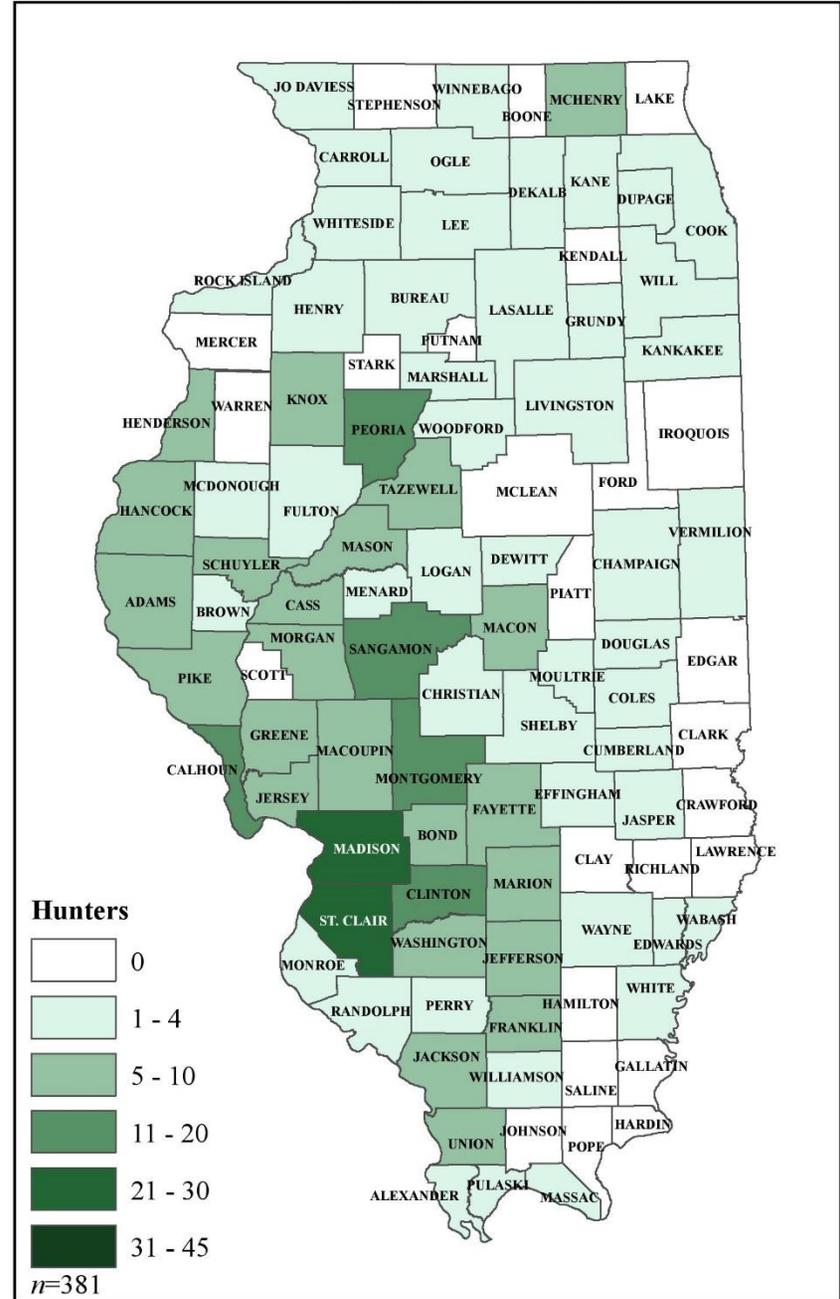
1816 South Oak Street,
Champaign, Illinois 61820 USA

Appendix E

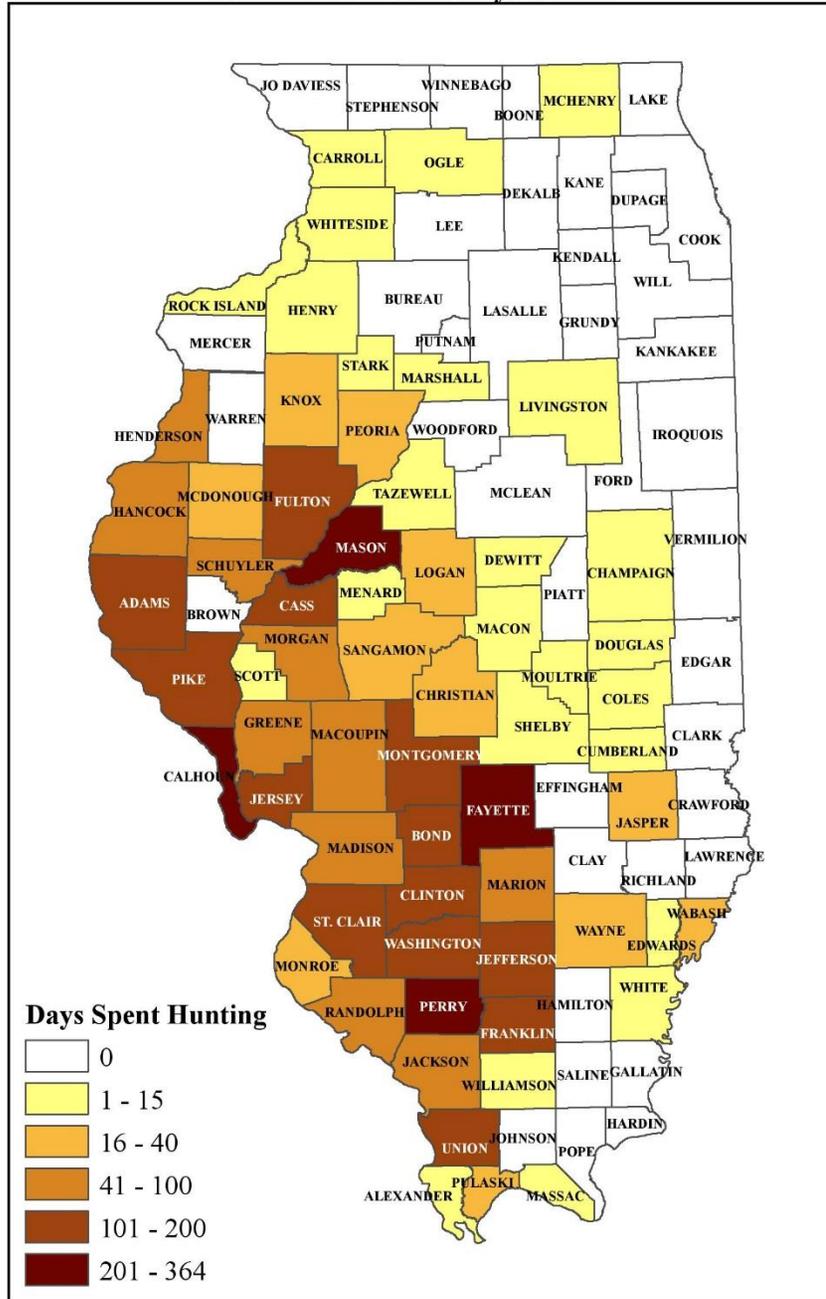
Distribution of All Respondents' Residence



Distribution of Hunters' Residence



Distribution of Total Days Hunted



Distribution of Total Harvest

