

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



Federal Aid Project
Number W-112-R-26
Job Number 101.4
Wildlife Restoration
Oct. 1, 2016-Sept. 30, 2017

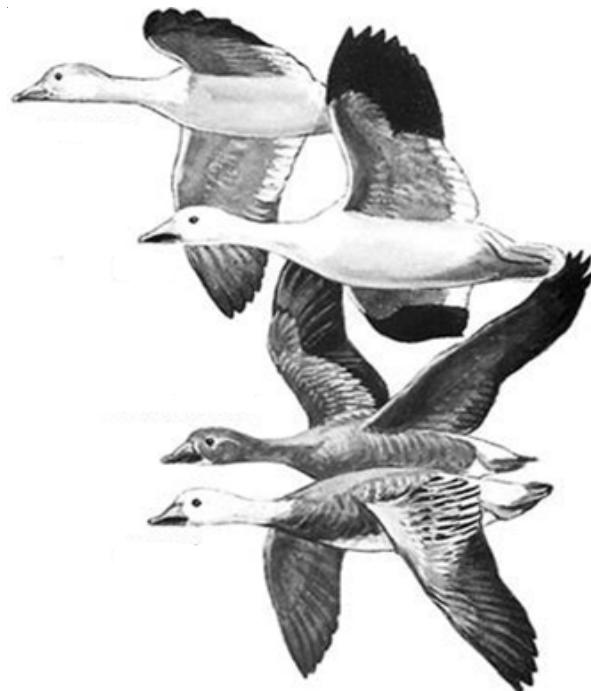
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Hunter Participation, Harvest, and Hunting Behavior During the 2017 Illinois Conservation Order Season



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INHS Technical Report 2018 (09)
February 12, 2018

Key words: Conservation Order, light goose, hunters, harvest, days afield

Suggested Citation:

Sears, Daniel T., B.D. Williams, C.A. Miller, and R.J. Conat. 2018. Hunter Participation, Harvest, and Hunting Behavior During the 2017 Illinois Conservation Order Season. Job Completion Report, Federal Aid in Wildlife Restoration W-112-R-26. Human Dimensions Program Report HR-17-04/INHS Technical Report (09). Illinois Natural History Survey, Champaign, IL. 32pp.

HUNTER PARTICIPATION, HARVEST, AND HUNTING BEHAVIOR DURING THE 2017 ILLINOIS CONSERVATION ORDER SEASON

JOB COMPLETION REPORT

WILDLIFE HARVEST AND HUMAN DIMENSIONS RESEARCH PROGRAM

STATE OF ILLINOIS

PROJECT NUMBER: W-112-R-26
STUDY 101
JOB NO. 101.4

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Federal Aid in Wildlife Restoration
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Illinois Department of Natural Resources

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ABSTRACT

Harvest of light geese (*Chen caerulescens*, *Chen rossii*) during the 2017 Illinois Light Goose Conservation Order season was estimated at 133,629. An estimated 2,459 hunters participated in the 2017 Illinois Light Goose Conservation Order season. Hunters spent an estimated 32,931 days afield during 2017, and the majority (63%) 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 prior to 2014. Hunters were sampled from Harvest Information Program (HIP) registrants who reported they hunted snow and other light geese (including Ross' and Blue geese) during the 2016 Light Goose Conservation Order seasons. Electronic calls were used by 89.5% of hunters, 82.5% used unplugged shotguns, and 68.3% reported hunting between sunset and ½ hour after sunset. About fifty-two percent of snow goose hunters indicated an increase in effort over the past five years, and 40.2% of hunters perceived an increase in snow goose abundance during the regular goose seasons. About twenty-eight percent of snow goose hunters used a guide or outfitter while hunting snow geese during the 2017 season, for an estimated 864 days total.

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 sample frame for this survey changed in 2014 and we recommend closely examining confidence intervals when making any comparisons of results between results prior to 2014. 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. Addition of this question allowed for more precise sampling of likely participants during the 2015, 2016, and 2017 Illinois Conservation Order Light Goose seasons than a random sample of Illinois State Waterfowl Stamp purchasers, the sampling method used in previous snow goose hunter surveys in Illinois (Williams et al. 2013). A total of 3,000 waterfowl hunters were

randomly selected from HIP registrants who reported they hunted snow geese during the 2016 Conservation Order Light Goose seasons in Illinois and purchased a state waterfowl stamp. Hunters sampled were mailed an 8-page mail-back questionnaire (Appendix A) and cover letter (Appendix B) 25 May 2017. Non-respondents were mailed a thank you/reminder postcard (Appendix C) 12 June 2017, a second copy of the questionnaire and cover letter (Appendix D) 28 June 2017, and another thank you/reminder postcard 13 July 2017. A third copy of the questionnaire and cover letter (Appendix D) was mailed 25 July 2017. 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:

$$Hunt_{sp} = Hunt_r \frac{L_t}{n}, \quad Days_{sp} = Days_r \frac{L_t}{n},$$

$$Crip_{sp} = Crip_r \frac{L_t}{n}, \quad Harv_{sp} = Harv_r \frac{L_t}{n}$$

Where:

$Hunt_r$ = number of respondents to the 2017 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 2015-16 waterfowl hunting season,

n = number of respondents to the 2017 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 2017 estimates for number of hunters, days hunted, and snow geese harvested were based on 4,781 HIP registrants who reported they hunted during the 2016 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 (for discussion of this estimator related to waterfowl harvest, see 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 24.0 (IBM SPSS Inc. 2015). 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 2017 spring goose season took place from 13 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 regular Canada goose (*Branta canadensis*) season closed. Hunters during the spring light goose season were required to have a state waterfowl stamp and hunting license, but were exempt from daily bag and possession limits, and needing a federal waterfowl stamp. Hunters were permitted to use unplugged shotguns, electronic calls, and to hunt from one 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 59 addresses, reducing the mailing list to 2,941 individuals. A total of 1,274 questionnaires were returned, of which 1,079 were considered usable, for a 43% response rate. Approximately seventy percent of respondents reported that they hunt waterfowl other than light geese every year (Figure 1). Just over one-tenth of respondents reported that they did not hunt waterfowl (ducks and/or geese) during the 2016-17 regular waterfowl season (Figure 2). A large majority (95.3%) of respondents participated in the regular duck season, 89.7% participated in the regular goose season, 49.7% participated in the September Canada goose season, and 47.5% in the September teal season during the 2016-17 hunting season (Figure 3). When asked about which species they hunted most often, 43.8% of respondents hunted ducks most often, 19% hunted geese most often, and 37.2% hunted ducks and geese equally (Figure 4). Of those who hunted during the regular goose season, 32% harvested snow geese (Figure 5). The majority (56.4%) of respondents hunted in the Central Zone most often (Figure 6).

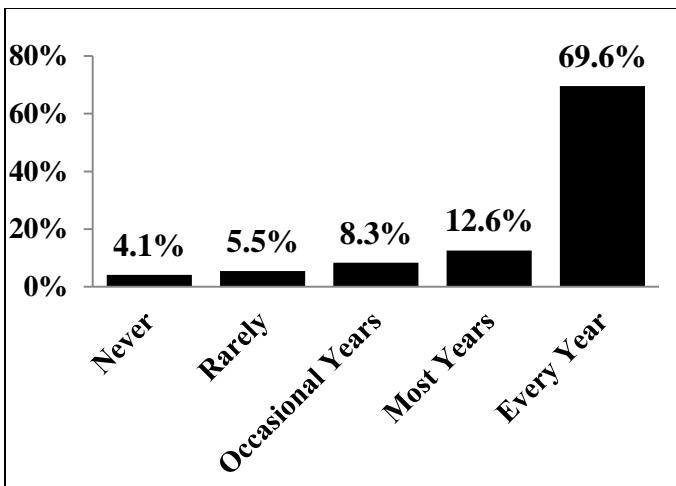


Figure 1. How often survey respondents hunt waterfowl other than light geese in Illinois ($n=1,042$).

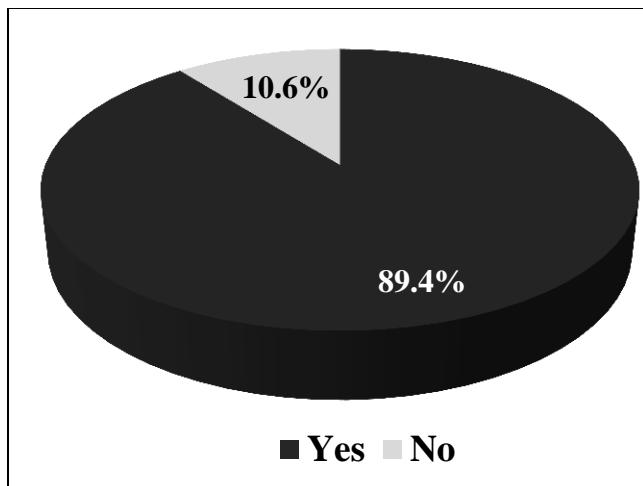


Figure 2. Percentage of survey respondents who hunted waterfowl in Illinois during the 2016-17 waterfowl season ($n=995$).

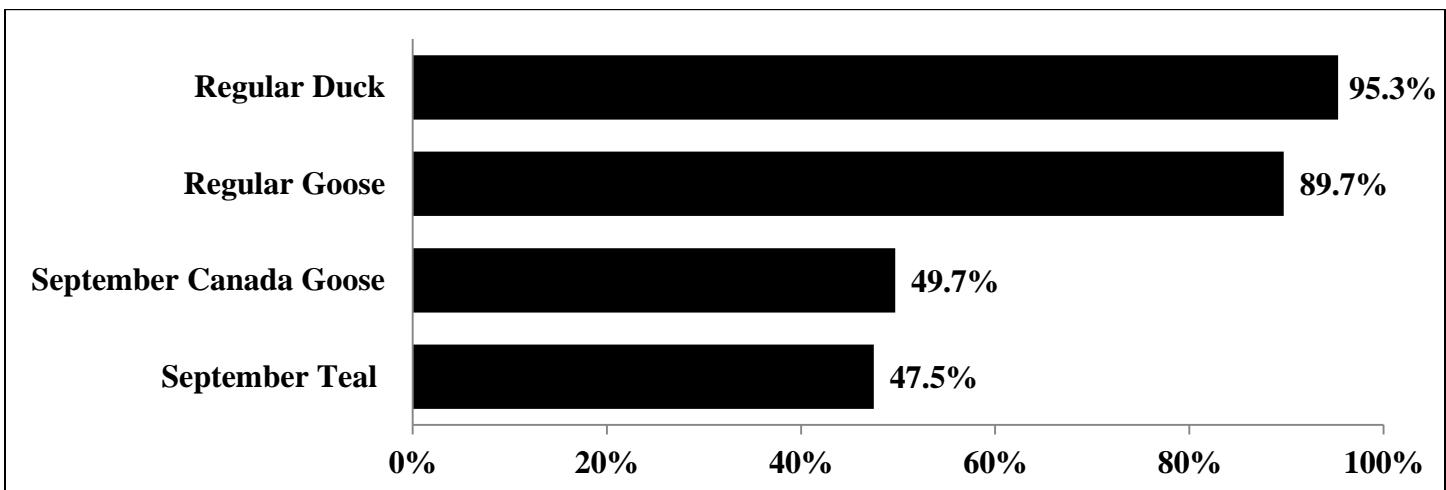


Figure 3. The seasons that survey respondents participated in during the 2016-17 hunting season ($n=886$).

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

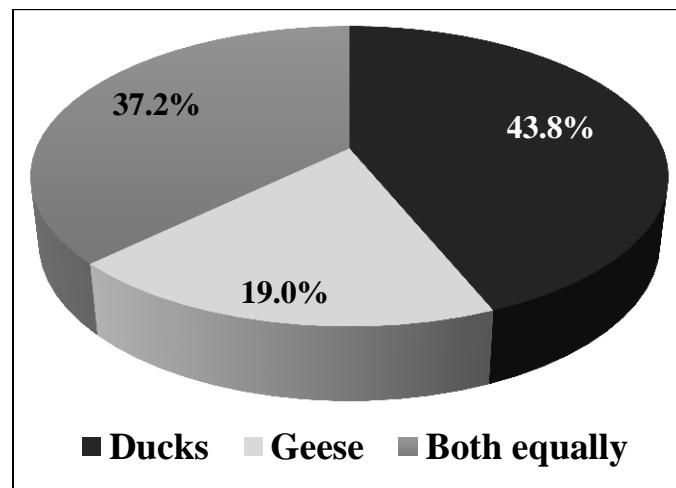


Figure 4. Species hunted most often in Illinois any during the 2016-17 waterfowl season ($n=888$).

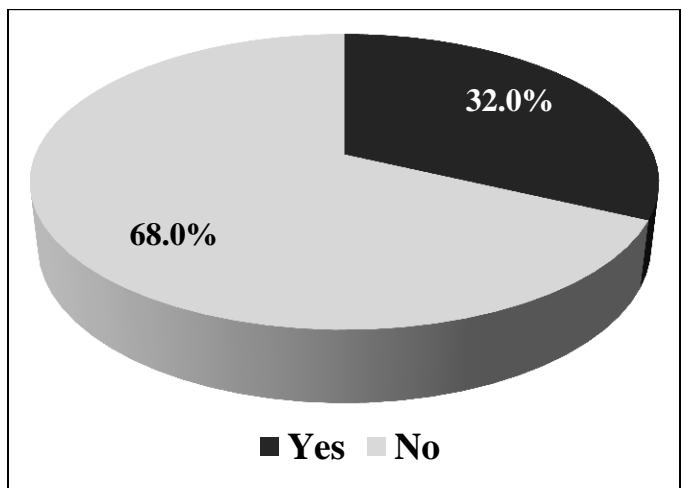


Figure 5. Percentage of respondents who harvested snow geese during the 2016-17 regular goose season ($n=885$).

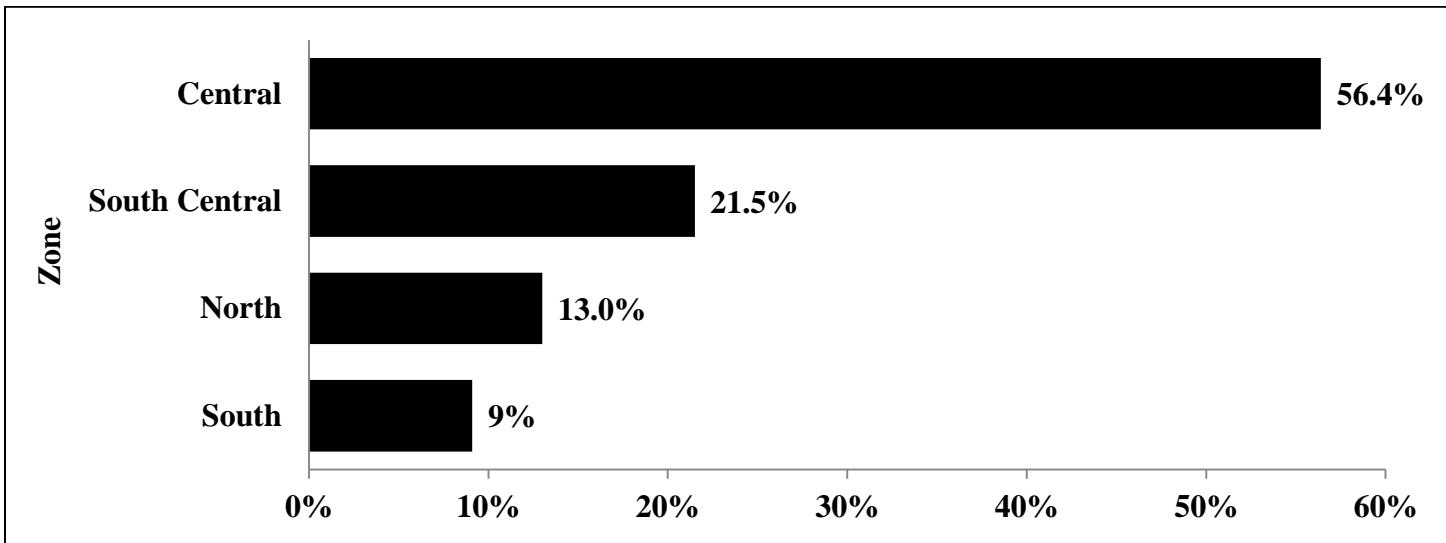


Figure 6. Zone hunted most often during the 2016-17 regular waterfowl seasons ($n=889$).

Slightly less than half (49%) of respondents reported hunting snow geese during the 2017 Conservation Order Light Goose season (Figure 7). Nearly all (96%) snow goose hunters also hunted during the regular waterfowl seasons (Figure 8). Approximately 65% of active hunters reported they hunted snow geese every year (Figure 9). More than half (63.3%) of active hunters reported hunting the Central Zone most often for snow geese (Figure 10).

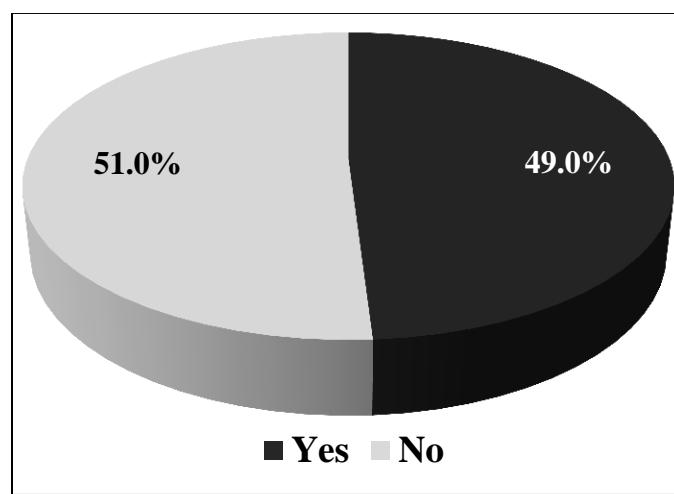


Figure 7. Percentage of survey respondents who hunted snow geese in Illinois during the 2017 spring snow goose season ($n=1,079$).

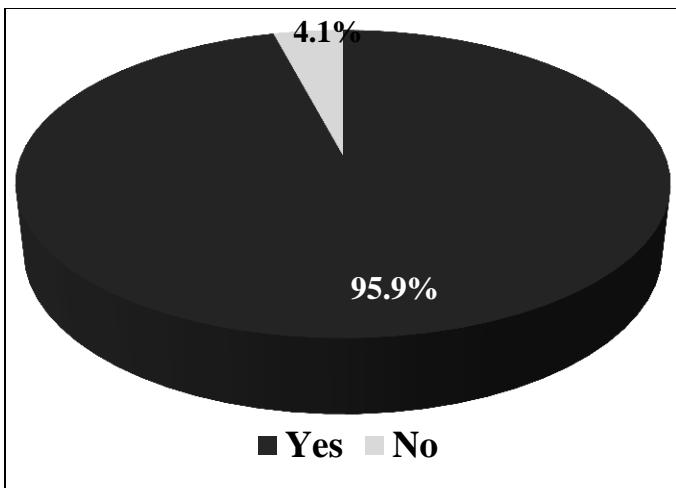


Figure 8. Percentage of snow goose hunters* who hunted waterfowl in Illinois during the 2016-17 regular waterfowl season ($n=516$).

*Hunters who reported they hunted snow geese 1 day or more in Illinois during the 2017 spring season.

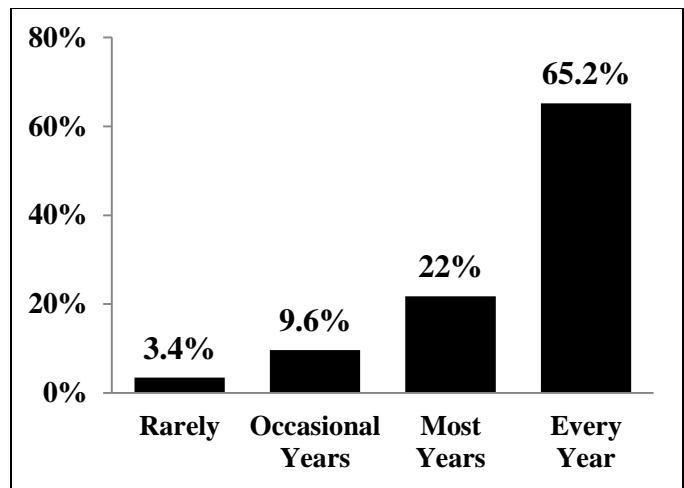


Figure 9. How often snow goose hunters* hunt the spring snow goose season in Illinois ($n=529$).

*Hunters who reported they hunted snow geese 1 day or more in Illinois during the 2017 spring season.

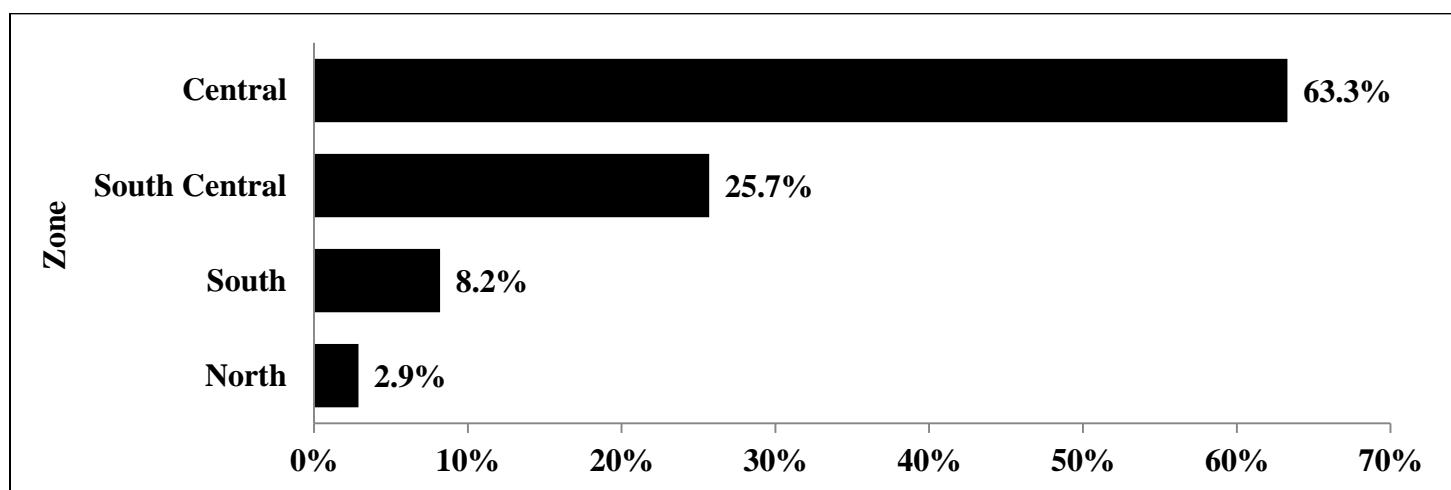


Figure 10. Zone hunted* most often during the 2017 spring snow goose season ($n=526$). *Hunters who reported they hunted snow geese 1 day or more in Illinois during the 2017 spring season.

During the 2017 Illinois spring snow goose season, an estimated 2,459 snow goose participants hunted for 32,931 days and harvested 133,629 snow geese (Table 1). In comparison to the 2016 season, hunter participation rose by 12.4% and snow goose harvest rose 9.8 % (Figure 11). Of respondents who indicated hunting snow geese ≥ 1 day, 55% hunted 10 days or less (Figure 12). About 9.5 % of hunters reported not harvesting any snow geese, whereas 15.3% harvested ≥ 100 snow geese (Figure 13). The fewest number geese were harvested in January (<1%), 63% of the harvest occurred during February, and 36.5% percent occurred in March (Table 2).

Mean harvest per hunter was 55 geese, and 61 geese per hunter when unsuccessful hunters are excluded. When hunters who harvested >100 geese are also excluded, mean geese harvested drop to 27 geese per

successful hunter, respectively. A total of 5,774 snow geese were estimated to be downed but not retrieved by hunters this season. Almost half (45.3%) of hunters reported that harvesting snow geese was important, very important, or extremely important to their hunting experience (Table 3).

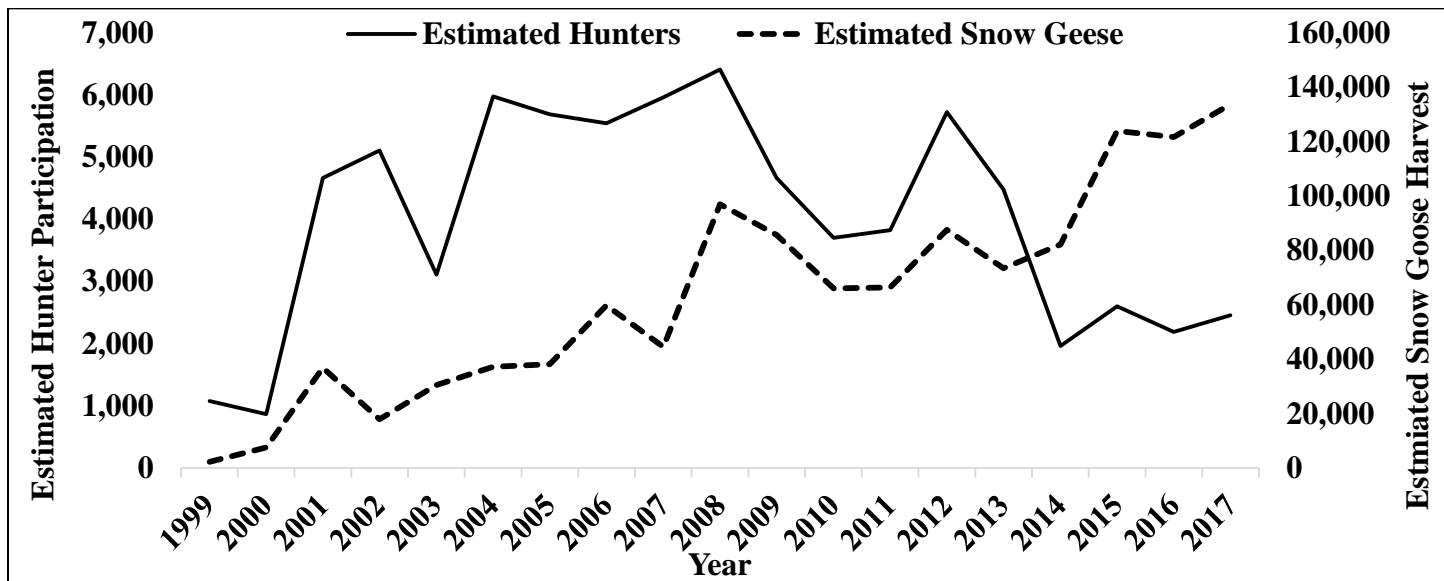


Figure 11. Estimated Illinois Conservation Order Light Goose seasons' hunter participation and harvest across time.* Due to changes in number of hunters sampled and calculation of estimates, comparisons to previous years' figures must be done with caution.

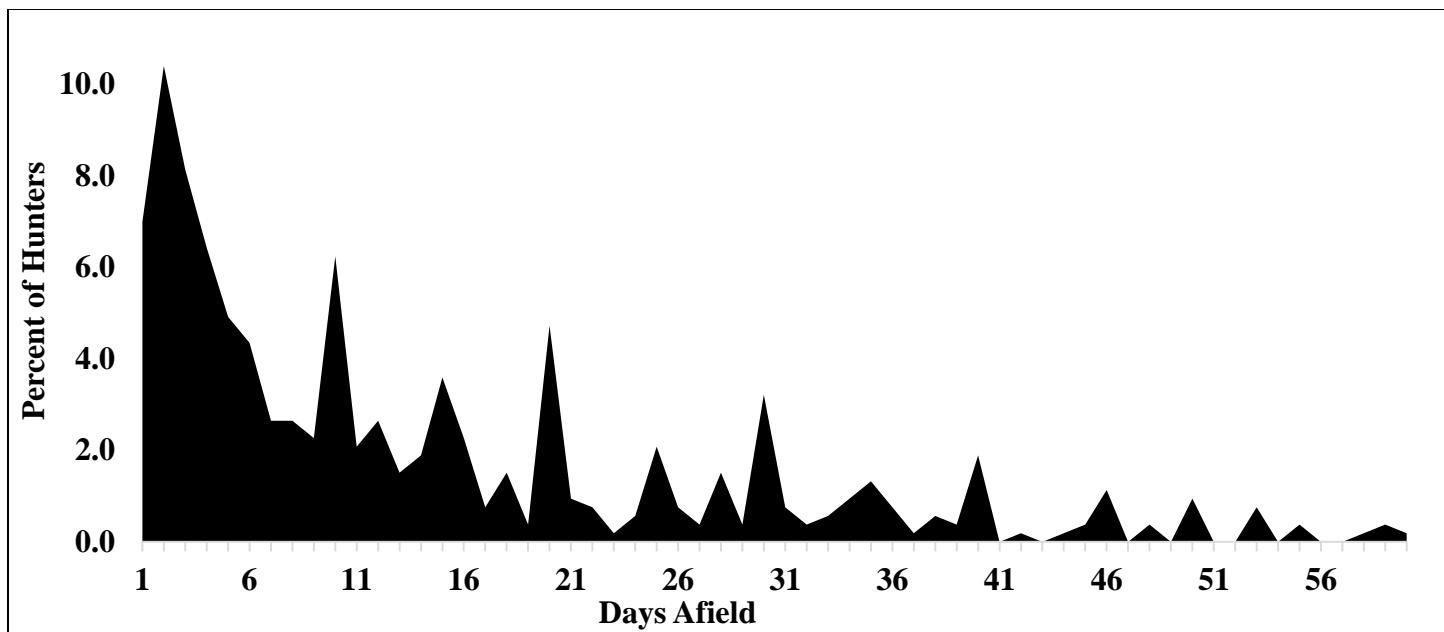


Figure 12. Distribution of days afield per hunter* for Illinois' 2017 Conservation Order Light Goose season (n=529). *Hunters who reported they hunted snow geese 1 day or more in Illinois during the 2017 spring season.

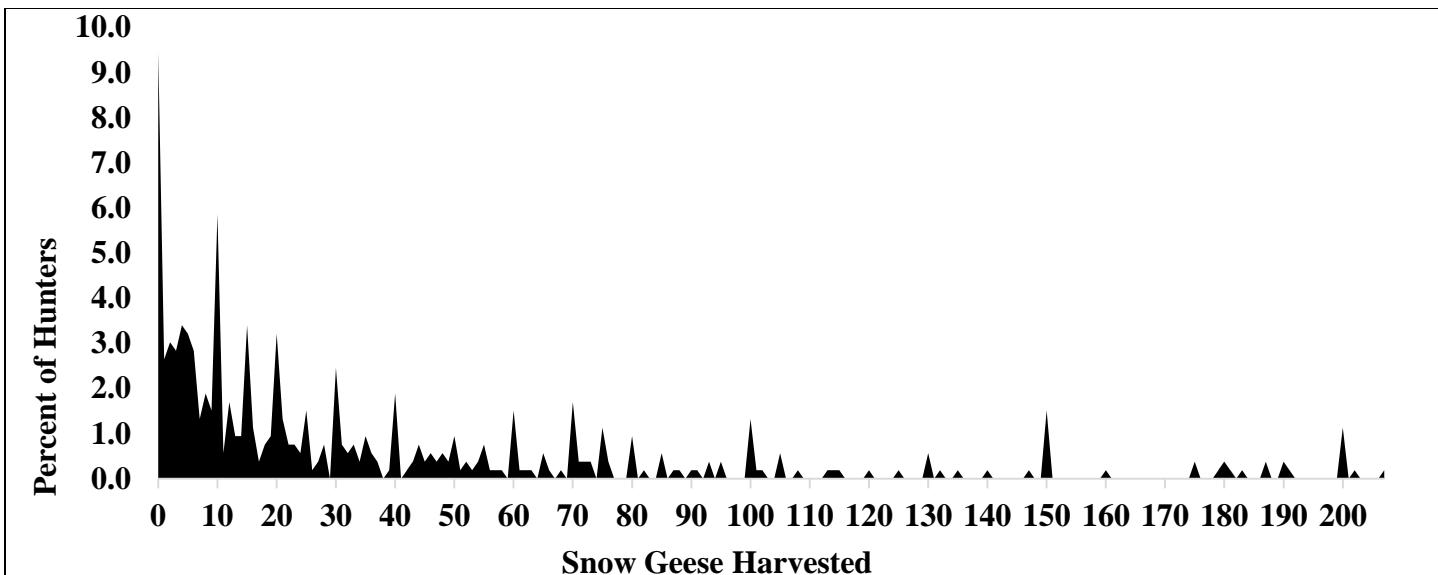


Figure 13. Distribution of snow geese harvested per hunter* for Illinois' 2017 Conservation Order Light Goose season (includes 95% of respondents; 5% harvested more than 207 snow geese) ($n=529$). *Hunters who reported they hunted snow geese 1 day or more in Illinois during the 2017 spring season.

Electronic calls were used by 89.5% of snow goose hunters; 82.5% reported using an unplugged shotgun during the spring snow goose season. A majority (68.3%) of hunters reported hunting up to $\frac{1}{2}$ hour after sunset (Table 4). About 46% of hunters used magazine extensions when hunting snow geese (Figure 14), of which 80.8% reported that it resulted in a greater harvest (Figure 15). Snow goose hunters hunted most frequently on private land with permission (67.4%), followed by private land for a fee (25.6%) (Figure 16). The general locations in Illinois in which snow goose hunters live and concentrated their efforts is presented in Appendix E.

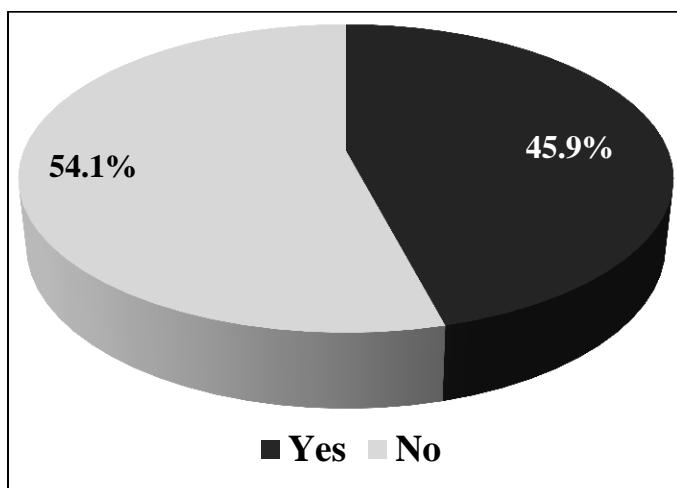


Figure 14. Hunters* who used a magazine extension while hunting snow geese in 2017 ($n=512$).

*Hunters who reported they hunted snow geese 1 day or more in Illinois during the 2017 spring season.

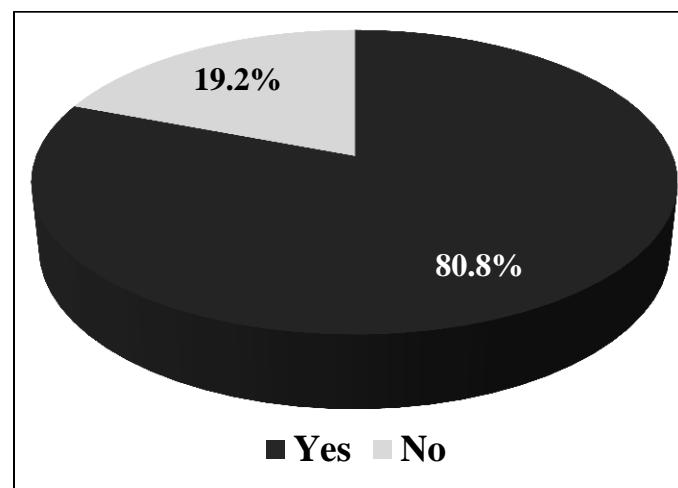


Figure 15. Did the extended magazine result in a greater harvest of snow geese? ($n=234$).

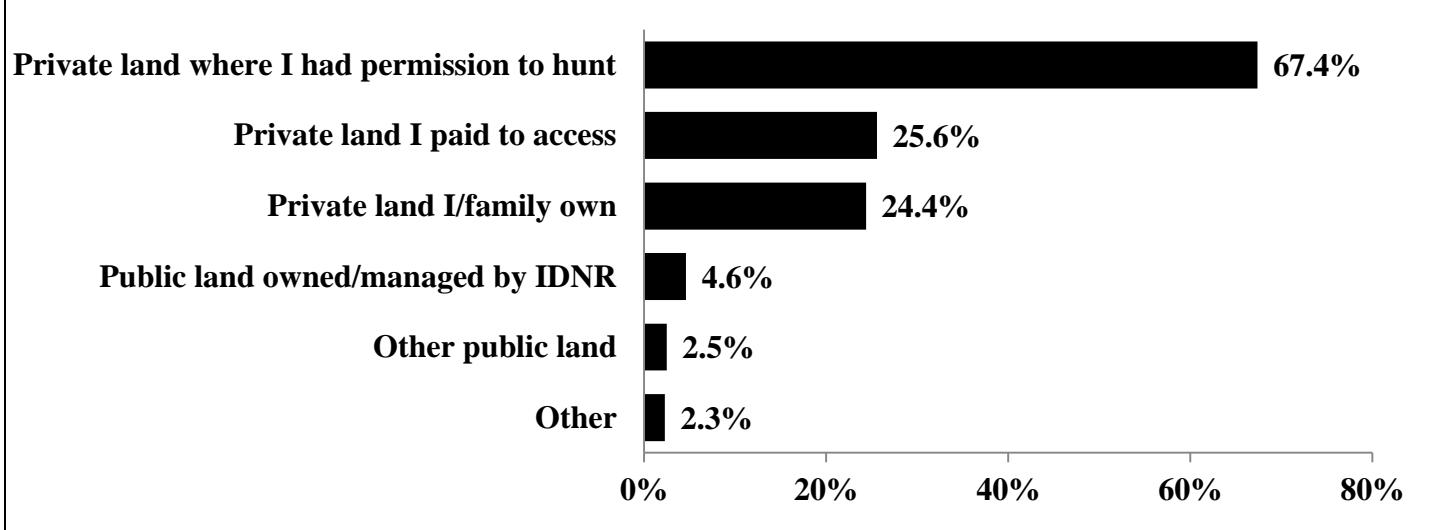


Figure 16. Type of land hunters* hunt most often for snow geese ($n=524$). *Hunters who reported they hunted snow geese 1 day or more in Illinois during the 2017 spring season. **Percentages do not add up to 100 because some hunters indicated they hunted multiple types of land.

Satisfaction with the 2017 Conservation Order Light Goose Season

Most hunters who hunted snow geese during the 2017 Conservation Order seasons increased their snow goose hunting efforts (52.1%), while 29.4% reported no change in effort (Table 5). About 62% of snow goose hunters were satisfied with the number of snow geese they saw during the 2017 spring season and 56.9% were satisfied with the number of snow geese that migrated through their hunting areas (Table 6). Hunters were least satisfied with mid-season matched peak snow goose migration (33.4%) and the number of snow geese they harvested (42.7%) (Table 6). Approximately forty percent of hunters perceived an increase in the number of snow geese seen during the spring snow goose seasons over the past 5 years (Table 7.) Approximately 45.5% of hunters stated that the number of snow geese they harvested decreased over the past 5 years (Table 8). When asked to compare their hunting skills with other hunters, the majority of those that did not hunt during the 2017 spring Conservation Order seasons labeled their skills as either “Novice” (45.2%) or “Intermediate” (47.8%), whereas the majority of those that did hunt labeled their skills as “Intermediate” (74.1%) (Table 9).

When asked about the dates of the 2017 Conservation light goose season, 55.8% of respondents felt that the dates were about right, whereas 20.9% were not sure (Figure 17). Active hunters’ top reasons why they were interested in snow goose hunting were to extend their hunting season (92.8%), to spend time with friends and family (91.2%), and to enjoy the outdoors (90.5%) (Table 10). The most common reasons that prevented non-

hunters from participating during the spring snow goose season were not enough time (51.6%), a lack of snow goose hunting areas (34.7%), and equipment being too expensive (25.2%) (Table 11). A majority of this year's hunters reported that they enjoy discussing waterfowl hunting with friends (95.4%), waterfowl hunting is an important way for them to spend time with friends (93.7%), and they have close friendships based on a common interest in waterfowl hunting (91.2%) (Table 12).

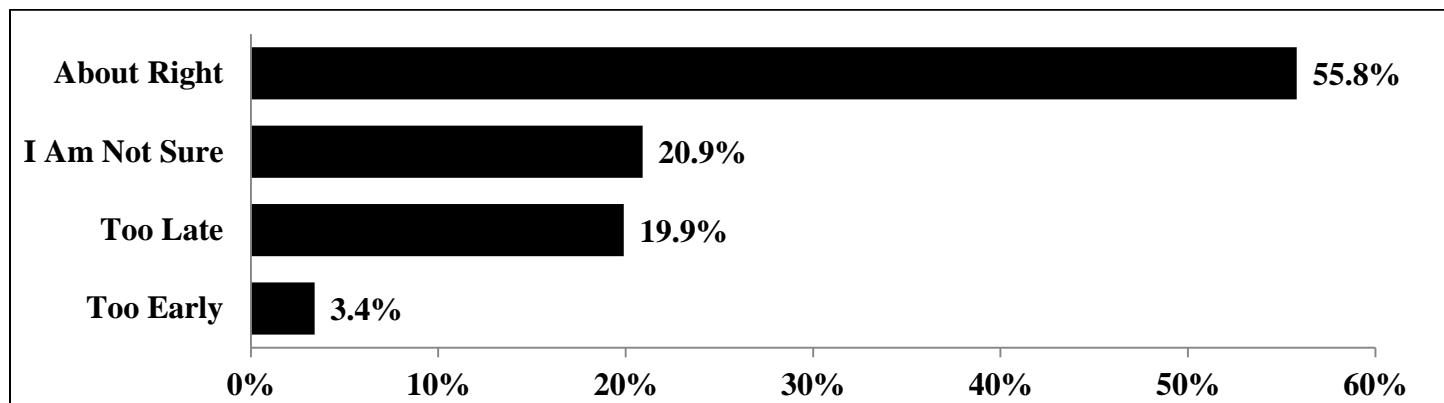


Figure 17. How respondents feel about the dates of the 2017 spring snow goose season for the area they hunted ($n=919$).

Conservation Order season goose hunters were younger ($M = 45$ years old) than non-hunters ($M = 48$ years old), and almost all (99.1%) were male (Figure 18). The majority (80.5%) of respondents have introduced someone to snow goose hunting (Figure 19). These hunters have been hunting snow geese during the spring in Illinois for an average of 7.4 years, and have hunted regular waterfowl in Illinois for an average of 24.7 years. About twenty-eight percent of snow goose hunters used a guide or outfitter while hunting snow geese during the 2017 season, for an estimated 864 days (Figure 20). Of those using guide or outfitter services, 34.3% of hunters reported using them rarely and 30% occasionally used them (Figure 21). Thirty-five percent of snow goose hunters used spinning wing decoys, an average of 5.2 decoys per hunter (Figure 22). Over half (53.9%) of respondents used a moving multi-decoy system (Vortex, etc.) to hunt snow geese (Figure 23). When asked what type(s) of snow goose decoys they use during a typical hunt, 91.6% used rags/sock decoys, 91% used full-body decoys, and 85.3% used kites/flag decoys (Table 13).

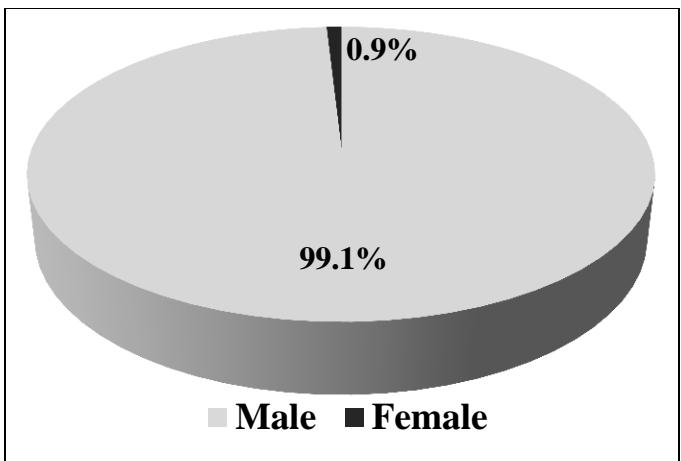


Figure 18. Gender of snow goose hunters ($n=529$).

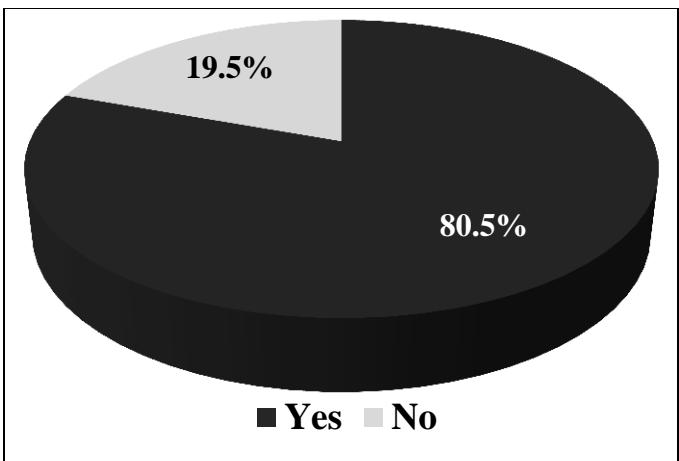


Figure 19. Hunters who have introduced someone to snow goose hunting ($n=498$).

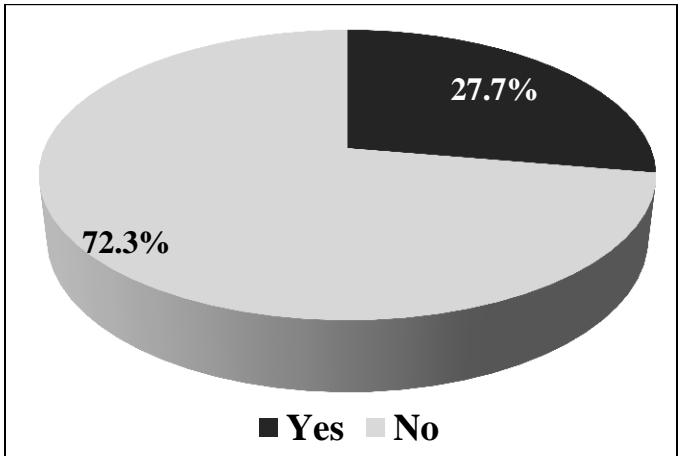


Figure 20. Hunters who used a guide or outfitter awhile hunting snow geese during 2017 ($n=516$).

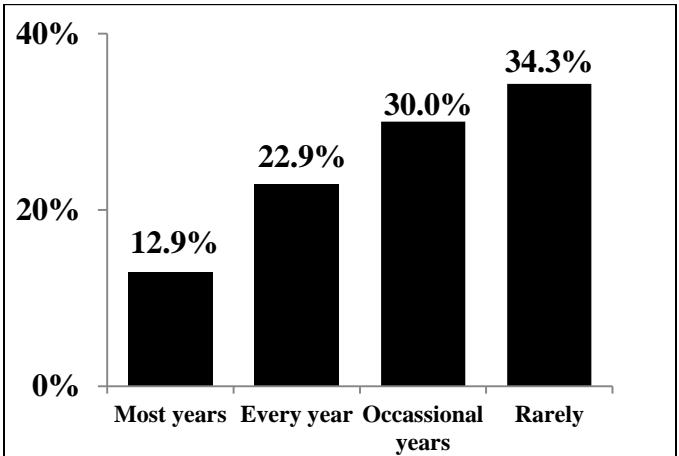


Figure 21. How often snow goose hunters used a guide or outfitter during 2017 ($n=140$).

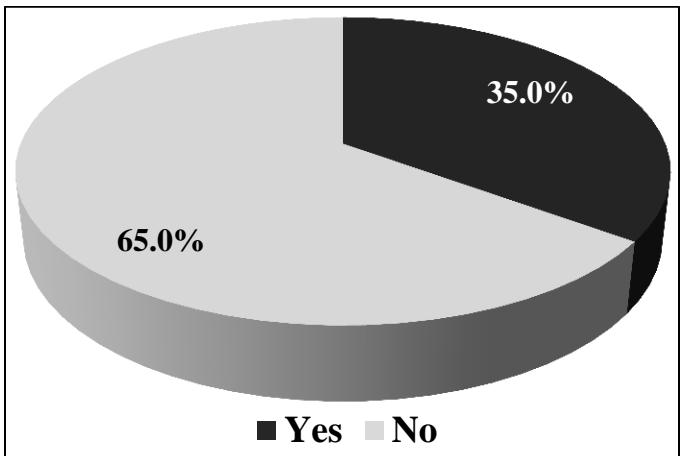


Figure 22. Hunters who used spinning-wing decoys ($n=526$).

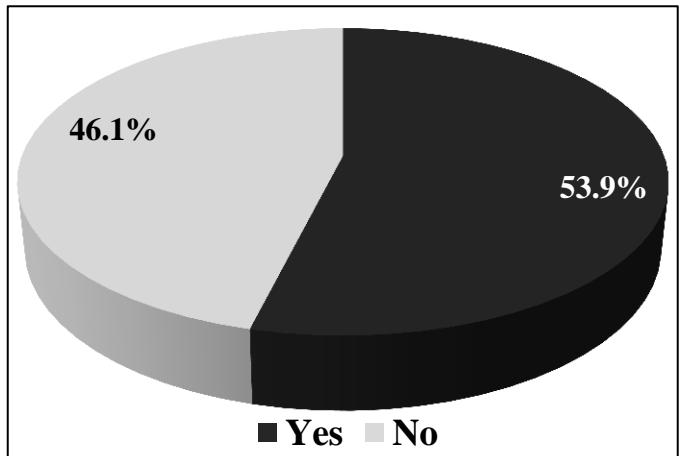


Figure 23. Hunters who used a moving multi-decoy system (Vortex, etc.) to hunt snow geese ($n=499$).

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Table 1. Estimates of the number of hunters, days afield, and harvest of snow geese from 1999-2017 during the Illinois Conservation Order Light Goose season.

	Hunters	Days Afield	Harvest
1999	1,076	3,756	2,254
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	$5,962 \pm 1,147^a$	$39,170 \pm 15,221$	$44,514 \pm 25,794$
2008	$6,409 \pm 1,046^a$	$50,471 \pm 10,331$	$97,021 \pm 40,811$
2009	$4,663 \pm 950^a$	$33,947 \pm 8,403$	$85,635 \pm 36,479$
2010	$3,702 \pm 820^a$	$25,581 \pm 6,297$	$65,987 \pm 42,519$
2011	$3,825 \pm 826^a$	$30,753 \pm 8,902$	$66,406 \pm 30,962$
2012	$5,726 \pm 943^a$	$51,763 \pm 11,376$	$87,558 \pm 41,316$
2013	$4,477 \pm 1,192^a$	$45,724 \pm 16,642$	$73,495 \pm 52,191$
2014	$1,962 \pm 188^a$	$21,170 \pm 3,151$	$82,161 \pm 22,291^b$
2015	$2,599 \pm 206^a$	$30,360 \pm 3,213$	$123,944 \pm 29,265^b$
2016	$2,187 \pm 81^a$	$33,048 \pm 1,822$	$121,689 \pm 9,716^b$
2017	$2,459 \pm 145^a$	$32,931 \pm 2,403$	$133,629 \pm 24,576^b$

^a95% confidence intervals

^bHarvest 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 2004-2017.

	January ^{b,c}	February	March
2004 ^a	-	26,404	10,785
2005	824	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 ^d	45,080	22,233
2014	97	39,969	42,094
2015	20	65,454	58,470
2016	402	74,269	47,018
2017	678	84,153	48,798

^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 Revised from reported 2013-14 harvest.

Table 3. The importance of harvesting snow geese to your hunting experience (n=997).

	Number of Hunters	Percentage of Hunters (%)
Not at all important	152	15.2
Slightly important	162	16.2
Moderately important	231	23.2
Important	250	25.1
Very important	138	13.8
Extremely important	64	6.4

Table 4. Methods utilized by hunters to hunt snow geese during the 2017 hunting season (n=515).

Method	Number of Hunters	Percentage of Hunters (%)	Estimated Total Hunters in IL
Electronic calls	461	89.5	2,043
Unplugged shotguns	425	82.5	1,883
Hunting from sunset to 1/2 hour after sunset	352	68.3	1,560

Table 5. Change in Illinois hunters' spring snow goose hunting effort over the past 5 years ($n=524$).

	Number of Hunters	Percentage of Hunters (%)
Decreased Considerably	12	2.3
Decreased Moderately	26	5.0
Decreased Slightly	59	11.3
No Change	154	29.4
Increased Slightly	110	21.0
Increased Moderately	93	17.7
Increased Considerably	70	13.4

Table 6. Satisfaction with the 2017 Conservation Order Light Goose season in Illinois.

	<i>n</i>	Hunters			<i>n</i>	Non-Hunters		
		Dissatisfied %	Unsure %	Satisfied %		Dissatisfied %	Unsure %	Satisfied %
Number of snow geese you saw.	527	21.9	15.7	62.4	364	25.5	38.7	35.7
Mid-season matched peak of snow goose migration.	522	36.2	30.5	33.4	354	28.8	50.6	20.6
Amount of shooting you got in.	523	42.3	13.6	44.1	341	54.8	35.8	9.4
Amount of time you spent snow goose hunting.	527	33.0	14.6	52.4	347	52.2	35.4	12.4
Number of snow geese you harvested.	527	43.3	14.0	42.7	340	58.2	34.1	7.7
The weather during the Conservation Order season.	527	25.4	19.2	55.4	347	28.2	50.1	21.6
Number of snow geese that migrated through areas you hunted.	527	26.3	16.7	56.9	351	28.8	44.4	26.8

Table 7. Illinois hunter comparison between the number of snow geese observed during 2016-17 to the last 5 years ($n=525$).

	Number of Hunters	Percentage of Hunters (%)
Decreased Considerably	40	7.6
Decreased Moderately	51	9.7
Decreased Slightly	95	18.1
No Change	128	24.4
Increased Slightly	97	18.5
Increased Moderately	73	13.9
Increased Considerably	41	7.8

Table 8. Illinois hunter comparison between the number of snow geese harvested during 2016-17 to the last 5 years ($n=521$).

	Number of Hunters	Percentage of Hunters (%)
Decreased Considerably	63	12.1
Decreased Moderately	73	14.0
Decreased Slightly	101	19.4
No Change	108	20.7
Increased Slightly	105	20.2
Increased Moderately	43	8.3
Increased Considerably	28	5.4

Table 9. Ratings of skills compared to other hunters during the 2017 Conservation Order Light Goose season in Illinois.

	<i>n</i>	Hunters			<i>n</i>	Non-Hunters		
		Novice %	Intermediate %	Expert %		Novice %	Intermediate %	Expert %
Skill calling in snow geese.	525	31.8	56.4	11.9	485	60.4	34.4	5.1
Snow geese harvested per shots taken.	522	6.3	69.9	23.8	464	41.8	47.0	11.2
Overall skill as a snow goose hunter.	521	8.6	74.1	17.3	480	45.2	47.8	7.1

Table 10. Reasons for wanting to hunt snow geese during the spring snow goose season.

	Hunters(n=525)		Non-Hunters (n=468)	
	Number	Percentage (%)	Number	Percentage (%)
Extend my hunting season	487	92.8	309	66.0
Spend time with friends/family	479	91.2	308	65.8
Enjoy the outdoors	475	90.5	340	72.6
Reduce the population	331	63.0	213	45.5
No bag limits	326	62.1	221	47.2
To eat them	307	58.5	182	38.9
Get to use electronic calls	203	38.7	88	18.8
Other	32	6.1	42	9.0

Table 11. Reasons that prevent you from hunting during the spring snow goose season.

	Hunters (n=351)		Non-Hunters (n=496)	
	Number	Percentage (%)	Number	Percentage (%)
Not enough time	189	53.8	256	51.6
Equipment is too much money	117	33.3	125	25.2
No place to hunt snow geese	70	19.9	172	34.7
No snow geese where I live/hunt	54	15.4	116	23.4
Other	47	13.4	68	13.7
They're too hard to hunt	45	12.8	46	9.3
Not enough people to hunt with	28	8.0	52	10.5
Don't know how to hunt them	3	0.9	30	6.0
Hunting techniques conflict with my ethics	1	0.3	3	.6

Table 12. Hunters' attitudes toward waterfowl hunting.

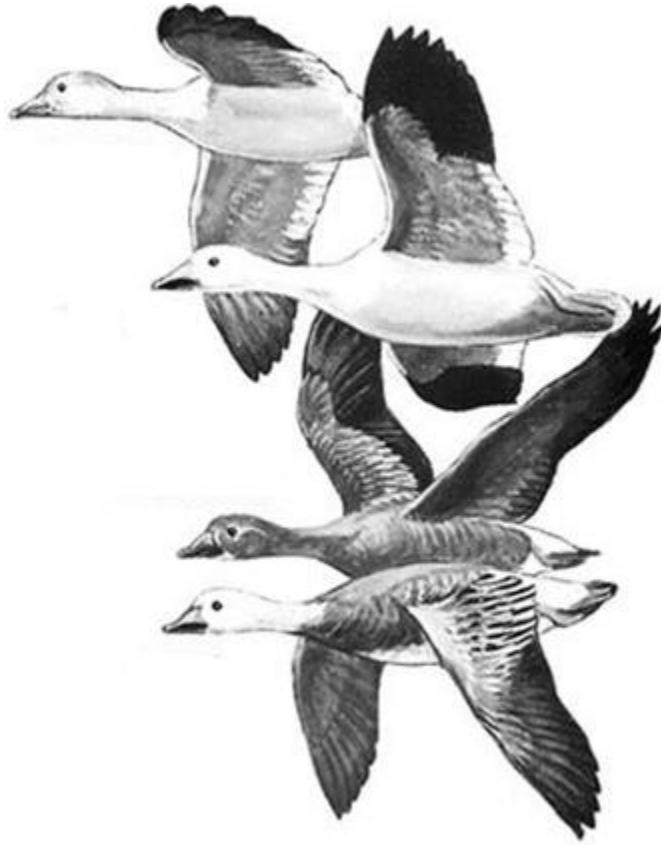
	n	Hunters			n	Non-Hunters		
		Disagree %	Unsure %	Agree %		Disagree %	Unsure %	Agree %
Waterfowl hunting is one of the most important activities in my life.	525	11.8	2.5	85.7	518	27.4	8.7	63.9
I spend a lot of time in the off-season planning for waterfowl hunting.	526	14.6	3.4	81.9	517	32.9	8.7	58.4
I would rather go waterfowl hunting than do any other recreation.	526	19.6	8.7	71.7	518	40.2	8.7	51.1
My closest friends are waterfowl hunters.	525	8.6	4.4	87.0	517	21.7	6.4	71.9
I spend a lot of time before the season scouting the area I will hunt.	523	29.3	7.6	63.1	517	47.2	9.3	43.5
I plan vacation time around waterfowl seasons.	519	25.4	6.4	68.2	516	47.3	7.6	45.2
Waterfowl hunting is an important way for me to spend time with my friends.	525	4.0	2.3	93.7	517	16.4	6.2	77.3
I enjoy discussing waterfowl hunting with friends.	525	2.5	2.1	95.4	516	13.6	6.8	79.6
Waterfowl hunting determines much of my lifestyle.	526	22.1	9.1	68.8	516	42.4	11.6	46.0
I have close friendships based on a common interest in waterfowl hunting.	526	7.0	1.7	91.2	516	21.3	8.1	70.5

Table 13. Number of decoys typically used by Illinois snow goose hunters ($n=503$).

Decoy Type	Number of Hunters*	% of Total Hunters	Number of Decoys Used (by % of hunters)			
			0	1-500	501-1000	1001+
Rags/sock decoys	461	91.6	9.8	54.2	18.0	18.0
Full-bodied decoys	458	91.0	11.1	59.0	10.0	19.9
Kites/Flags	429	85.3	13.5	85.1	0.5	0.9
Shells	427	84.9	15.7	73.3	6.1	4.9
Silhouettes	347	69.0	46.4	46.4	4.0	3.2
Floater decoys	326	64.8	52.8	44.2	1.2	1.8

Appendix A

Illinois Spring Snow Goose Hunter Survey 2017 Season



Illinois Department of Natural Resources

Division of Wildlife Resources
and
Illinois Natural History Survey



ILLINOIS NATURAL
HISTORY SURVEY
PRAIRIE RESEARCH INSTITUTE

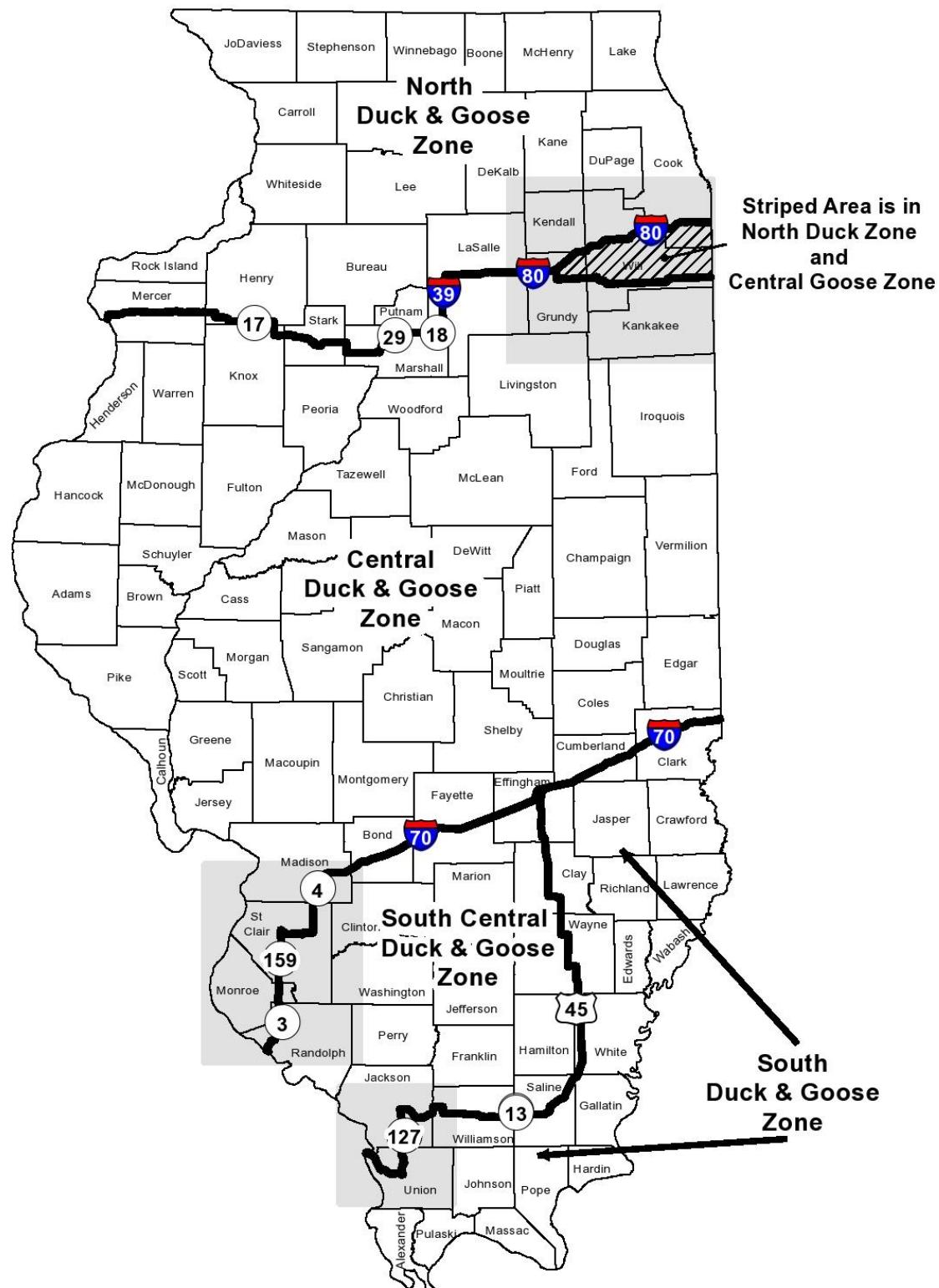
The Department of Natural Resources is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the Illinois Compiled Statutes, The Wildlife Code, Chapter 520. Disclosure of information is voluntary. This study is funded by the federal Wildlife Restoration 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 question 5 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 2017 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 **2017 Conservation Order (spring snow goose) season** (North Zone: **Jan. 13-March 31, 2017**; Central, South Central, and South Zones: **Feb. 1- March 31, 2017**)?

Do not include hunting snow geese during the regular Canada goose season. (Please check one.)

Yes No (Please skip to **Question 14**)

2. Which of the following best describes how often you hunt **spring snow geese** in Illinois?

Every year Most years Occassional years Rarely

3. In which zone did you **hunt snow geese most often** during the 2017 **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 2017 **spring snow goose season**? (Please check all that apply.)

<input type="checkbox"/> Public land owned/managed by IDNR	<input type="checkbox"/> Other public land
<input type="checkbox"/> Private land I/family own	<input type="checkbox"/> Private land where I had permission to hunt
<input type="checkbox"/> Private land I paid to access	<input type="checkbox"/> Other (Please identify): _____

5. 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 county/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:				

6. Please indicate which of the following methods you used to hunt snow geese during the **2017 spring snow goose season**? (Please check all that apply)

Electronic calls Unplugged shotgun Hunting from sunset to ½ hour after sunset

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

7a. If "Yes," did the extended magazine result in a greater harvest of geese? Yes N

8. 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						

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

9a. If "Yes," how many spinning-wing decoys did you typically use? _____ Decoys

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

11. Have you ever used a guide or outfitter while hunting snow geese during the **spring snow goose season**?

_____ Yes _____ No

11a. If "Yes," on average for all years you have hunted, how often do you use a guide or outfitter while hunting during the **spring snow goose season**?

_____ every time _____ most times _____ occasionally _____ rarely

11b. How many days did you use a guide or outfitter while hunting snow geese **during the 2017 season**?
_____ days

12. 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

13. 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

14. 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

15. How did you feel about the dates of the 2017 Conservation light goose season for the area where you hunted most often? (Please circle one.)

Too early	About right	Too late	I am not sure
1	2	3	4

16. Have you ever introduce someone to snow goose hunting? _____ Yes _____ No

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

- | | | |
|---|--|---|
| <input type="checkbox"/> No bag limits | <input type="checkbox"/> Reduce the population | <input type="checkbox"/> Get to use electronic calls |
| <input type="checkbox"/> Extend my hunting season | <input type="checkbox"/> Enjoy the outdoors | <input type="checkbox"/> Spend time with friends/family |
| <input type="checkbox"/> To eat them | <input type="checkbox"/> Other (Please identify) _____ | |

18. Please check which of the following prevents you from hunting during the spring snow goose season. (Please check all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> No place to hunt snow geese | <input type="checkbox"/> No snow geese where I live/hunt |
| <input type="checkbox"/> Not enough time | <input type="checkbox"/> They're too hard to hunt |
| <input type="checkbox"/> Equipment is too much money | <input type="checkbox"/> Don't know how to hunt them |
| <input type="checkbox"/> Not enough people to hunt with | <input type="checkbox"/> Hunting techniques conflict with my ethics |
| <input type="checkbox"/> Other (please indicate: _____) | |

Section 2. Hunting Skills and Satisfaction. Please tell us about yourself as a hunter by answering the following statements.

1. 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 would rather go waterfowl hunting than do any other recreation.	1	2	3	4	5	6	7
My closest friends are waterfowl hunters.	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 plan vacation time around waterfowl seasons.	1	2	3	4	5	6	7
Waterfowl hunting is an important way for me to spend time with my friends.	1	2	3	4	5	6	7
I enjoy discussing waterfowl hunting with friends.	1	2	3	4	5	6	7
Waterfowl hunting determines much of my lifestyle.	1	2	3	4	5	6	7
I have close friendships based on a common interest in waterfowl hunting.	1	2	3	4	5	6	7

2. Please rate **your skills** as compared to other snow goose hunters.

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

3. Please rate how important harvesting snow geese is to your hunting experience by circling the number that matches your response.

Not at all Important	Slightly Important	Moderately Important	Important	Very Important	Extremely Important
1	2	3	4	5	6

4. Please rate your **SATISFACTION with the 2017 spring Conservation Order (snow goose) season in Illinois** for each of the following by circling the number that matches your response.

	Very Dissatisfie d	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
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
Number of snow geese that migrated through areas you hunted.	1	2	3	4	5

Section 3. Regular Waterfowl Seasons. The following questions allow us to understand more about the hunters who waterfowl in Illinois, and refers to those seasons completed before the Conservation Order Light Goose season begins.

1. Which of the following best describes how often you hunt **waterfowl other than** light geese in Illinois?

Every year Most years Occassional years Rarely Never

If you have never hunted for any other waterfowl in Illinois, please go to Section 4. 

2. Did you hunt waterfowl (ducks and/or geese) in Illinois during the **2016-17 regular waterfowl seasons?**

Yes No (Please skip to **Section 4**)

3. Which of the following seasons did you participate in? (Please check **all that apply**.)

- September Teal season
- September Canada Goose season
- Regular Duck season
- Regular Goose season

4. In which zone did you **hunt waterfowl most often during the 2016-17 regular waterfowl seasons?**
(Please check **one**.)

- North Zone
- Central Zone
- South Central Zone
- South Zone

5. Which did you hunt most often? (Please check **one**.)

- Ducks
- Geese
- Both ducks and geese equally

6. Did you harvest any snow geese during the **regular goose season** in Illinois during the 2016-17 goose season?

Yes (How many? _____) No

Section 4. 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. Please give your age. _____ Years

4. What is your gender? _____ Male _____ Female

5. 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

Appendix B

Dear Waterfowl 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 2017 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.

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

You may access the results of this and other studies of hunters and hunting in Illinois at <http://www.inhs.illinois.edu/programs/hd/> 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



816 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

Dear Waterfowl Hunter,

You recently received a survey questionnaire requesting information about snow goose hunting activities during the 2017 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.

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

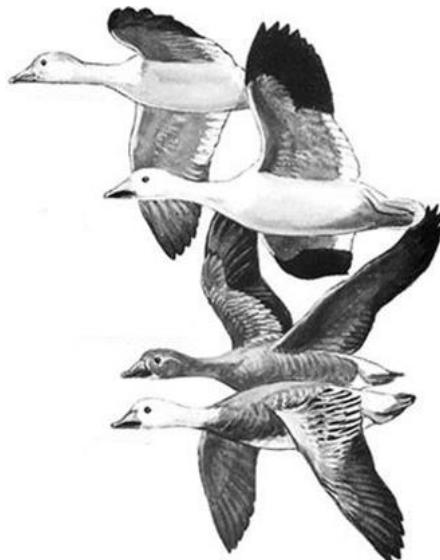
Please take a few minutes to complete the portions of the questionnaire that pertain to you and return it in the envelope provided. If you have any questions please call 217-244-5121.

Thank you for your time and assistance.

Sincerely,

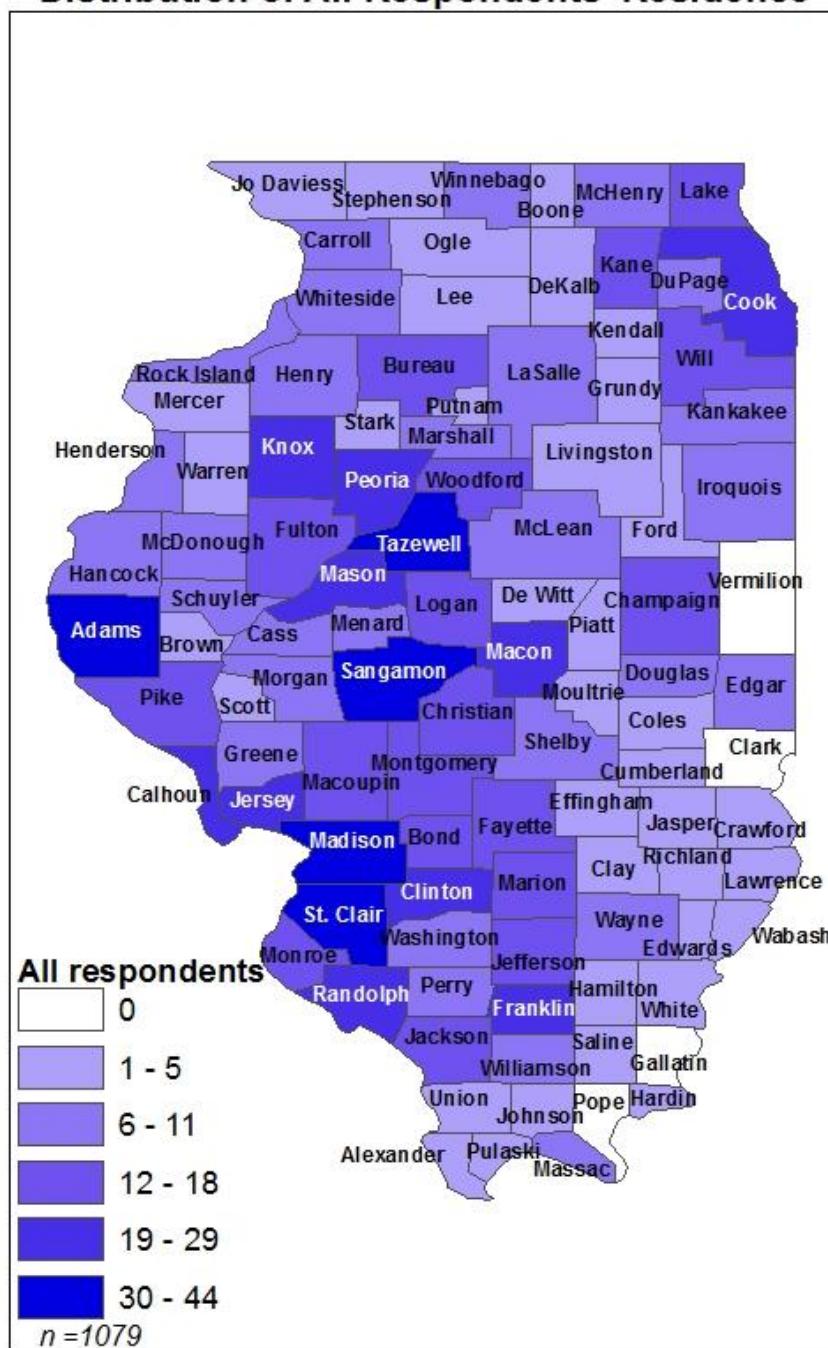
A handwritten signature in black ink, appearing to read "Craig A. Miller".

Craig A. Miller
Human Dimensions Research Program

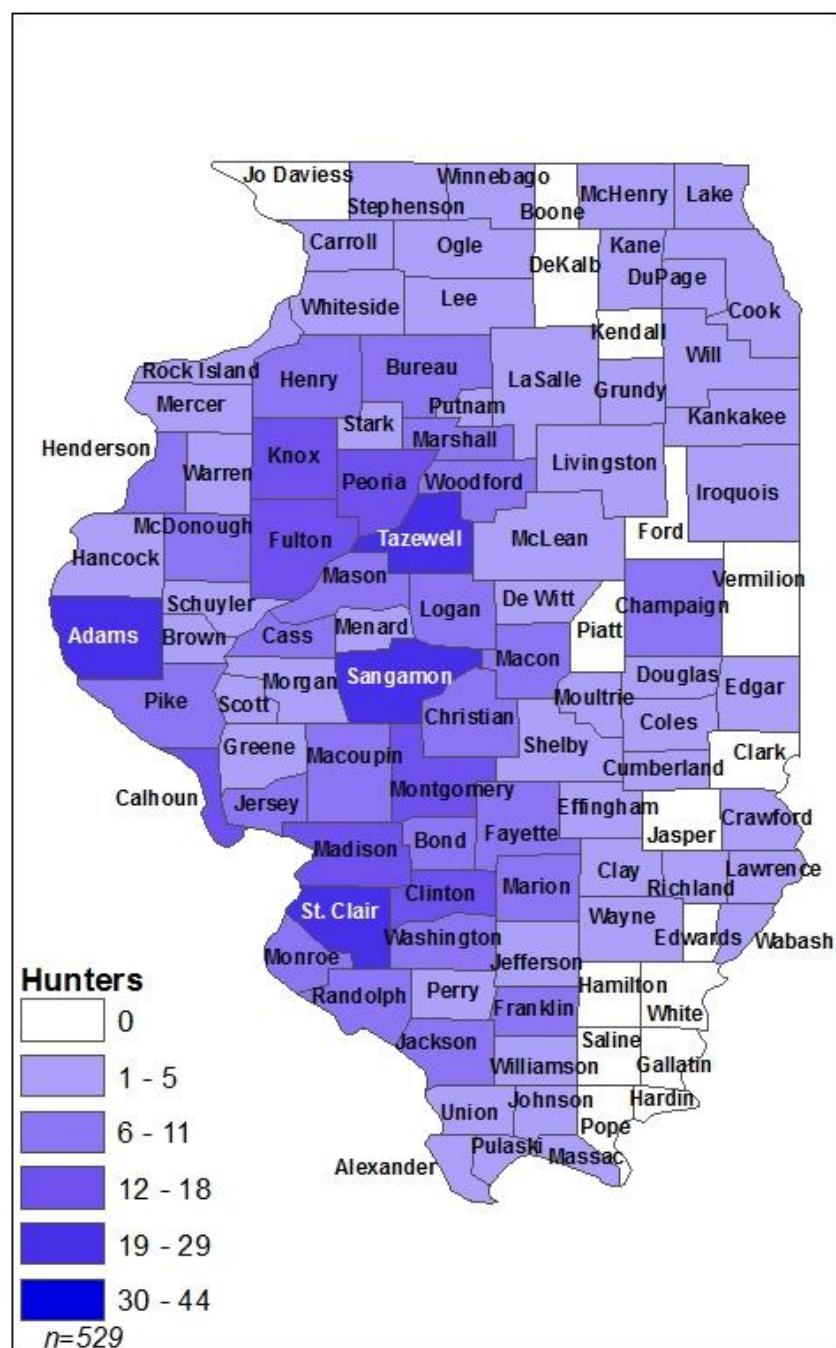


1816 South Oak Street,
Champaign, Illinois 61820 USA

Distribution of All Respondents' Residence



Distribution of Hunters' Residence



Distribution of Total Days Hunted



Distribution of Total Harvest

