

2015 Waterfowl Hunter Survey for Lake Champlain, Interior Vermont, Connecticut River and Northeastern New York Zones

Project Summary



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Executive Summary

In 2015, the State University of New York Plattsburgh conducted a mail survey of migratory bird hunters who registered with the Harvest Information Program (HIP) in Vermont and New York. A stratified random sample of 2,741 hunters, combined from both states, were contacted using names drawn from the HIP database. Of the survey forms delivered, hunters returned 498 (18.2% response). Key findings revealed:

- Most survey responses were from hunters who indicated they reside in New York ($n = 290$) followed by Vermont ($n = 190$). Eighteen respondents indicated they resided in a state other than New York or Vermont.
- Most Vermont hunters indicated they hunted waterfowl in the Interior VT zone (73%) followed by the Lake Champlain zone (67%), Connecticut river zone (13%) and Northeastern NY zone (5%).
- Most Vermont respondents indicated they had been hunting waterfowl < 10 years (42%), followed by those who hunted between 10 and 30 years (34%) and more than 30 years (24%).
- Most New York hunters indicated they hunted waterfowl in the Northeastern NY zone (92%) followed by the Lake Champlain zone (13%), Interior VT zone (1%) and CT river zone (<1%).
- The distribution of New York respondents relative to how many years they have hunted waterfowl was relatively even with those hunting waterfowl < 10 years (35%), followed by those who hunted more than 30 years (33%) and between 10 and 30 years (33%).
- The percentage of hunters who indicated they primarily hunted for geese in the Northeastern NY zone (25%) was greater than hunters indicated in Interior VT (15%) and Lake Champlain zones (10%).
- Northeastern NY hunters found waterfowl bag limits more difficult to understand, relative to the three other hunting zones, but this percentage was still relatively low (16%).
- Most (60%) Northeastern NY zone hunters believe it is either important or very important that the opening day of goose season is not shared with the opening day of deer season.
- When asked what would most improve their overall experience, Vermont residents indicated greater accessibility to hunting lands was most important while New York residents indicated different start and close season dates was most important.
- Most Vermont (77%) and New York (79%) residents indicated they were either satisfied or somewhat satisfied with their waterfowl hunting experience in the past 5 years.
- Hunters revealed, from a days devoted to hunting perspective, priority is greatest for dabbling ducks, followed by Canada geese, diving ducks, then snow geese and mergansers.
- Most Northeastern NY zone duck hunters preferred the season to open the first week in October but for other zones top preferences were not as clear.

- Hunters generally prefer the goose season to open the first week in October, regardless of zone.
- Most hunters prefer October as the month when most days are open to waterfowl hunting.
- About 40% of Lake Champlain zone waterfowl hunters indicated it is somewhat of a conflict when bass tournaments coincide with duck season while about 13% indicated they would not hunt waterfowl when bass tournaments are held during duck season.
- Fifty five percent of Vermont hunters indicated state-owned public land was the type of land they hunted most often while only 36% of New York hunters indicated this.
- Hunting leases for waterfowl were not common nor was hunting waterfowl on federally owned property.
- Generally, our survey revealed overcrowding is a not a common description of hunting on public lands in either Vermont or New York.
- When asked to select reasons hunters didn't hunt waterfowl as much as they would like to, regulation complexity and access to public lands were the **least** commonly selected reasons.
- Hunters in both states commonly selected not enough waterfowl as a reason they do not hunt waterfowl as much as they would like.
- Our survey is consistent with others of waterfowl hunters by revealing the average age of hunters is increasing over time and that most participants are male. Average age of hunters in our survey was in the mid-40s for both states and increased by more than 4 years for Vermont hunters and almost 2 years for New York hunters since 2004.
- About 8% of respondents in our survey were female which is up from 3% in 2004.
- In 2004, 55% of Vermont hunters preferred the duck hunting season to begin the first week in October but only 29% preferred the season to begin the first week in October in 2015.

Consistent with our findings we suggest the following management recommendations:

- Future survey efforts might be improved if the survey administrators are non-state partisan (or at least appear that way), they send more surveys to Vermont residents relative to New York and they use web-based survey .
- Future survey efforts should use methods that ensure more Lake Champlain zone hunters from New York get included.
- Outreach efforts that promote snow goose hunting as a resource in northern New York and Vermont might be one way to attract new users while also helping to curtail burgeoning snow goose populations.
- In years to come, managers should be prepared to accommodate a preference for hunting seasons to extend longer into the season, especially if waterfowl alter their migration timing and favorable hunting conditions exist.
- Moving forward, fish and waterfowl managers should strive to avoid potential conflicts on Lake Champlain and potentially consider appropriate exclusion zones for each user group if conflicts arise.
- Accessible state owned public lands are important for waterfowl hunters in both states and managers should recognize the value of supporting and enhancing these areas.
- More information and further study is needed to understand the relationship between continental waterfowl populations, statewide waterfowl populations and the linkage to hunter harvest, satisfaction and recruitment.
- Recruitment of new and young people as well as females to waterfowling remains a vital endeavor for the future of waterfowl and hunting conservation in general.

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Introduction

Effective waterfowl management in the U.S. relies on decisions made by federal agencies as well as within and among state wildlife agencies. To be most effective, agencies strive for coherent integration between three main axioms; harvest management, habitat management and human dimensions (i.e., social factors influencing hunter retention / recruitment, etc.). Until recently, research informing human dimensions components have lagged behind the other two axioms. This comes at an important time given the documented decline in waterfowl hunter recruitment and retention rates across the country (Vrtiska et al. 2013).

Within New York and Vermont waterfowl management occurs within specified management zones. For each zone, season start and end dates as well as bag limits are set by state managers so as long as they are within the guidelines established by the U.S. Fish and Wildlife Service. New York and Vermont have a unique and longstanding agreement to jointly determine annual regulations for the Lake Champlain Zone. The determination of regulations for the Lake Champlain zone relies on numerous sources of information which includes gathering information directly from waterfowl hunters through periodic mail surveys. The last such survey was published in 2004 (Brown and Enck 2004) and included the Lake Champlain and the waterfowl hunting zones adjacent to it (Northeastern in NY, Interior in VT). Although state agencies can gather some information from the Harvest Information Program (HIP) and can independently seek input through voluntary e-mail requests, there has been no comprehensive assessment of waterfowl hunters in New York and Vermont in more than a decade. As such, we developed a revised survey for waterfowl hunters in four different hunting zones in NY and Vermont, designed to gather contemporary information on 1) hunting effort and harvest, 2) season structure and preferences, 3) hunting accessibility and satisfaction and 4) background information. Within this document, we will summarize and analyze results by state and make relevant comparisons to the 2003 survey where applicable.

Methods

Survey Design

We obtained potential survey respondents home address information from the federal Harvest Information Program (HIP) database. The NY database included respondents who purchased a migratory bird hunting license in the State of New York and completed the HIP certification between August 1st 2014 and April 1st 2015 (~ 8 months). The VT database included respondents who purchased a migratory bird hunting license in the State of Vermont and completed the HIP certification between December 27th 2013 and November 26th 2014 (~ 11 months). Because our survey was sent in December 2015, responses that reference ‘this year’ pertain to the 2015 hunting season. Individuals in each state’s database were unique because 1.) each hunter can register for HIP only once per calendar year and 2) our “snapshot” of time was < 1 year. This process resulted in 41,877 and 9,914 unique individuals in NY and VT, respectively.

Individuals who complete the HIP questions are not necessarily waterfowl hunters as it includes those who hunt other migratory birds (e.g., woodcock, snipe, coot, etc.). For both states we reduced the database by only including respondents who indicated they hunted waterfowl species (i.e., ducks or geese or brant or sea ducks). This reduced the number of individuals to 27,478 and 4,493 for NY and VT, respectively. Because we were not interested in sending our surveys to hunters in the Southeastern, Western or Long Island NY hunting zones, we only included those that likely hunted in the Lake Champlain or Northeastern waterfowl hunting zones. To accomplish this, we used a Geographic Information System (GIS) program and included individuals whose postal code was at least partially within the NY Northeastern or Lake Champlain Zone. In addition to individuals chosen with the GIS, we chose to include hunters with non-NY state home addresses because these non-resident hunters may have hunted in the NY Northeastern zone or Lake Champlain zone and we wanted their information. This final filter reduced the NY database to 11,649 individuals. Therefore, the NY database was filtered to include only waterfowl hunters that likely hunted in the Northeastern NY or Lake Champlain zone while the VT database included waterfowl hunters in all VT zones (Lake Champlain, Interior and Connecticut River).

For each state, we separated all males and females into age groups. For males in each state database, we grouped all individuals into the following 6 age-strata: <18, 18-25, 26-35, 36-45, 46-55, and > 55 years. Age was calculated based on the date the respondents completed the HIP. Because of the low number of females for each state, we made no effort to age-stratify this group and selected all females in each state's database to receive the mail survey ($n = 156$ in NY and $n = 185$ in Vermont). For males, we randomly selected 200 individuals from each age-strata in each state's database to receive the mail survey. In total, we sent mail surveys to 1,356 individuals in New York's database and 1,385 individuals in Vermont's database.

Survey Implementation

Although we explored using web-based survey platforms (i.e., Survey Monkey, Google Docs etc.) we decided to conduct a mail survey because 1.) it was logistically challenging to restrict access to specific individuals using web-based platforms, 2.) instructions for navigating to a web site that hosted the surveys was cumbersome and we believed this would reduce our return rate, and 3.) it was challenging to restrict the availability of a web-based survey to only the intended recipient. A mail survey allowed us to assign the postal letter to one specific person and receive a maximum of one response per survey in return.

About 2-3 weeks before we sent the actual survey (Mid November 2015) we sent all individuals in both states a postcard (Appendix A) indicating they were randomly selected and in a few weeks would be receiving the actual survey through the mail. We sent all surveys through the mail during the first 2 weeks of December 2015. Surveys were printed on 8.5 x 11-inch paper, folded and included logos from State University of New York Plattsburgh, NY Department of Environmental Conservation and Vermont Fish and Wildlife on the front page (Appendix B). A self-addressed and stamped envelope was included as well as instructions for completing the survey. About 2-3 weeks after surveys were mailed we sent a postcard (Appendix C) to all individuals reminding them to complete the survey and return it in the self-addressed and stamped envelope included.

Survey Content

Survey questions were developed based on 1) the 2003 survey, 2) information needs requested in the 2012 North American Waterfowl Management Plan and 3) conversations and e-mail correspondence with biologists from New York Department of Environmental Conservation (J. O'Connor) and Vermont Fish and Wildlife (D. Sausville). Based on these three sources, we grouped our responses into 4 thematic areas including, 1) hunting effort and harvest, 2) season structure and preferences, 3) hunting accessibility and satisfaction and 4) background information.

Hunting Effort and Harvest

In this section we asked hunters to indicate which zone they hunted in and to estimate how many days each year they hunt in each waterfowl zone. We also asked them how often they hunt waterfowl, whether they hunted primarily for ducks or geese, when they do most of their hunting, if they find regulations difficult to understand, and how many days they typically devote to hunting a specific waterfowl group (i.e., dabbling ducks, divers, etc.).

Season Structure and Preference

Hunters were asked when they preferred duck and goose hunting season to open and they could respond uniquely for each of the four hunting zones. We also asked which month they preferred to have the most days open to waterfowl hunting and again they could respond uniquely for each of the hunting zones. We asked if they prefer a straight or split season for duck or goose seasons and gave them some guidance on the difference between the two options. Hunters were asked their preference on the length of a closure if the season is split. Questions seven and eight asked hunters to describe if they believed the opening day of goose season conflicted with deer hunting opener or if duck hunting conflicted with bass tournaments on Lake Champlain. Question nine asked preferences on the start date of resident Canada goose seasons. Questions ten and eleven examined which day of

the week hunters preferred to have duck and goose seasons open. Last in this section we asked hunters where they learn about changes to waterfowl hunting regulations.

Hunting Accessibility and Satisfaction

The first two questions in this section asked the type of land hunters typically hunt and how they would describe their feeling of hunting around other parties. Questions three and four asked about satisfaction with zone boundary changes in 2011. Question five asked about potential reasons for not hunting waterfowl while six asked hunters to rank which factors would improve the overall hunting experience. Last in this section, we asked hunters to choose their satisfaction with hunting in the past five years.

Background Information

This section asked background information including, how many years they hunted waterfowl in NY and VT, their age, which state they reside, their total household income and their highest level of educations. We ended the survey by asking if they had any comments and if they would like to provide their email to receive a copy of the survey results.

Analysis and Summary

Responses to individual questions were summarized in tables, figures or both. In most cases, results were presented separately for each state and waterfowl hunting zone. In some instances, (i.e., where there were no obvious differences) results were presented across states or hunting zones.

Results

Response Rate and Characteristics of Respondents

Our sample returned 14 undeliverable surveys due to incorrect addresses and we had 43 respondents who indicated they did not hunt waterfowl in New York or Vermont at any time during 2011-2015. We received 498 usable surveys for a response rate of 18.2%. Of the useable surveys, most were from hunters who indicated they reside in New York ($n = 290$; 58.2%), followed by Vermont ($n = 190$; 38.2%). Eighteen respondents (3.6%) indicated they resided in a state other than New York or Vermont. Given this response rate, the maximum expected margin of error at the 95% confidence level for any question with dichotomous responses was $\pm 5.2\%$.

Most Vermont hunters indicated they hunted waterfowl in the Interior VT zone (73.2%) followed by the Lake Champlain zone (66.8%), Connecticut river zone (12.6%) and Northeastern NY zone (5.3%; Table 1). Average days hunted was greatest for hunters in the Lake Champlain zone (11.2 days /year) and least for CT river zone (7.2 days/year). Vermont male hunters comprised 91.2% of all VT hunters, their average age was 44.7 years and they have been hunting waterfowl for 18.0 years, on average. Sixty four percent of VT hunters were 40 years old or older. The average age of female hunters in Vermont was 41.9 and they have been hunting waterfowl for 6.5 years, on average (Table 2). Most respondents (41.8%) indicated they had been hunting waterfowl < 10 years, followed by those who hunted between 10 and 30 years (33.8%) and more than 30 years (24.4%).

Most New York hunters indicated they hunted waterfowl in the Northeastern NY zone (92.4%) followed by the Lake Champlain zone (12.8%), Interior VT zone (1.0%) and CT river zone (0.3%; Table 2). Average days hunted was greatest for hunters in the Northeastern NY zone (12.1 days /year) and least for CT river zone (1.0 days/year). New York male hunters comprised 92.3% of all NY hunters, their average age was 45.7 years and they have been hunting waterfowl for 22.0 years, on average. Sixty five percent of NY hunters were 40 years old or older. New York female hunters average age was 40.2 and they have been hunting waterfowl for 10.6 years, on average (Table 2). The distribution of respondents relative to how many years they have hunted waterfowl was relatively even with those hunting waterfowl < 10 years (34.6%), followed by those who hunted more than 30 years (32.9%) and between 10 and 30 years (32.5%).

Table 1. Number and percentage of respondents and average number of days hunted (range in parentheses) for waterfowl hunters in New York, Vermont and all other states (non-resident hunters) by waterfowl management zone. Percentages are a ratio of the total useable surveys and respondents were allowed to choose more than one zone.

Management Zone	VT Residents			NY Residents			Non-Resident Hunters		
	<i>n</i>	%	\bar{x} days hunted	<i>n</i>	%	\bar{x} days hunted	<i>n</i>	%	\bar{x} days hunted
Lake Champlain	127	66.8%	11.2 (1-50)	37	12.8%	10.3 (1-40)	9	50.0%	5.0 (2-18)
Interior VT	139	73.2%	8.0 (1-45)	3	1.0%	11.7 (5-20)	6	33.3%	4.7 (1-8)
CT River	24	12.6%	7.2 (1-15)	1	0.3%	1 (1-1)	5	27.8%	1 (1-1)
Northeastern NY	10	5.3%	7.9 (1-30)	268	92.4%	12.1 (1-80)	3	16.7%	2.7 (1-6)
Lake Champlain and Interior VT	86	45.3%	n/a	1	0.3%	n/a	2	11.1%	n/a
Only Lake Champlain	32	16.8%	12.2 (1-50)	4	1.4%	2.8 (1-5)	3	16.7%	7.7 (2-18)
Only Interior VT	35	18.4%	8.9 (1-45)	1	0.3%	10 (10-10)	1	5.6%	5 (5-5)
Northeastern NY and Lake Champlain	9	4.7%	n/a	32	11.0%	n/a	1	5.6%	n/a
Only Northeastern NY	1	0.5%	15 (15-15)	163	56.2%	11.4 (1-50)	1	5.6%	1 (1-1)

Table 2. Number of respondents, average years hunted and average age for male and female waterfowl hunters in New York and Vermont.

State	Male						Female							
	<i>n</i>	\bar{x} years hunted	min	max	\bar{x} age	min	max	<i>n</i>	\bar{x} years hunted	min	max	\bar{x} age	min	max
NY	264	22.0	1	63	45.7	14	77	22	10.6	2	60	40.2	14	78
VT	186	18.0	1	63	44.7	9	74	17	6.5	2	30	41.9	15	70

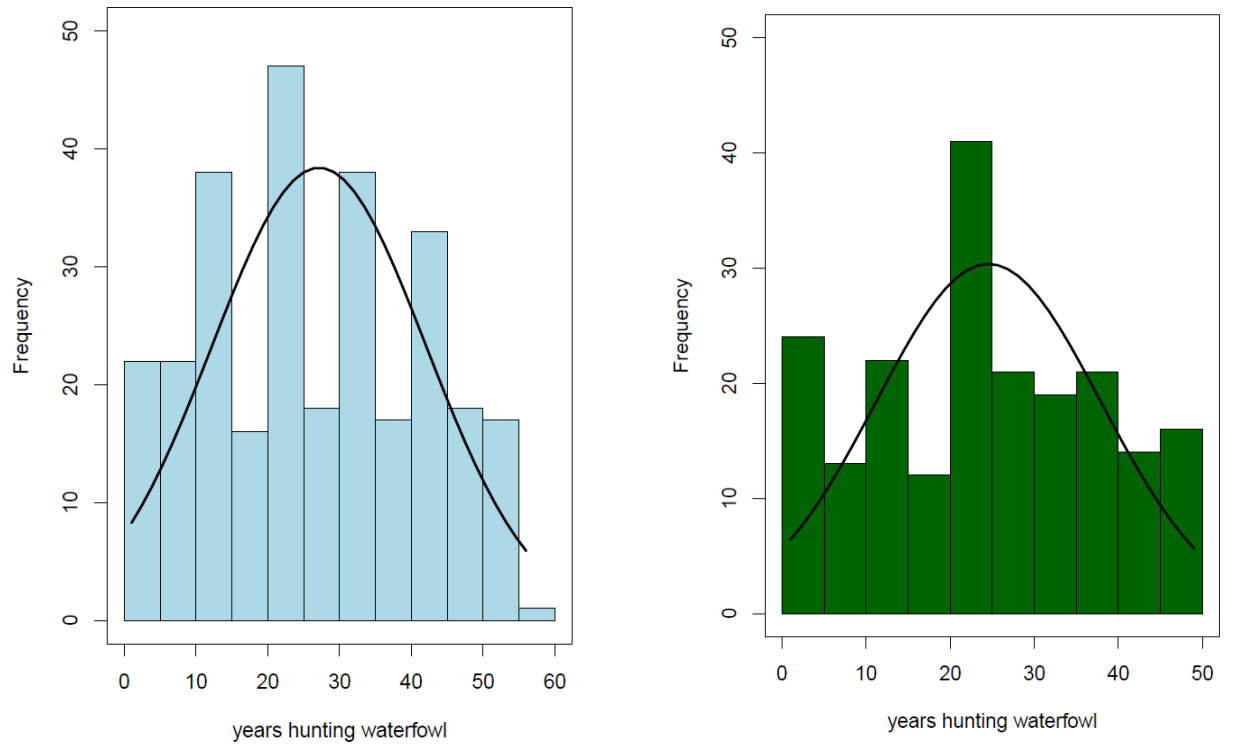


Figure 1. Distribution of hunters relative to years of waterfowl hunting experience for NY (blue; left) and Vermont (green; right) residents.

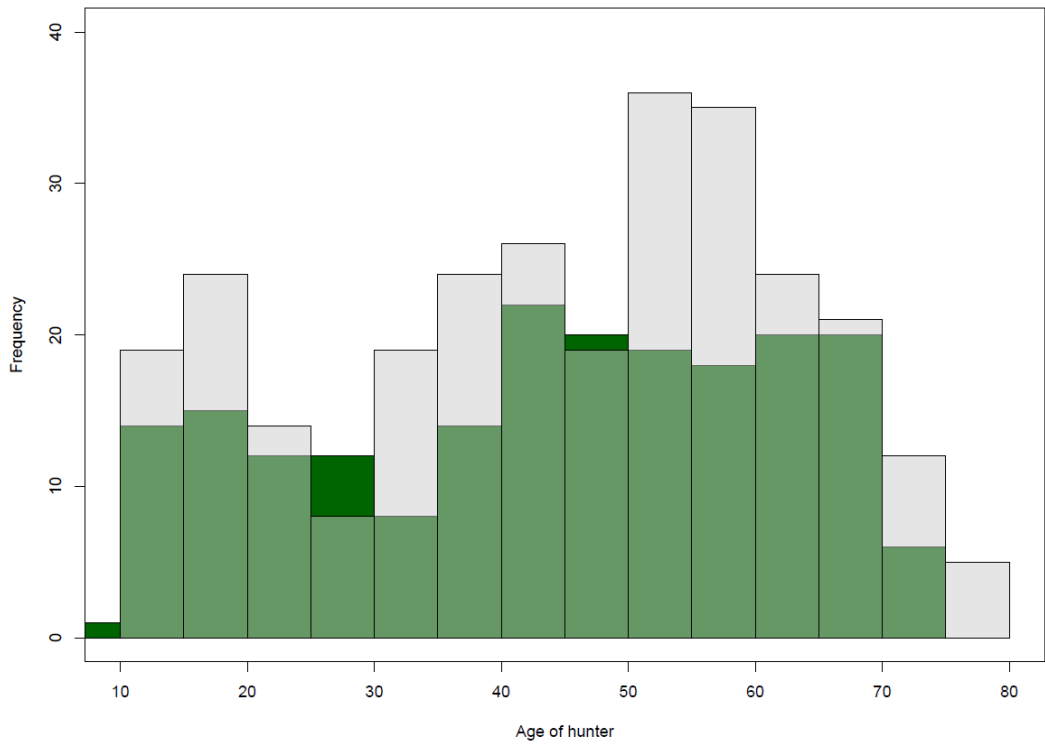


Figure 2. Distribution of hunters relative to their age for NY (grey) and Vermont (green) residents. The dark green is where no overlap with NY and VT occurs.

Waterfowl hunting effort and harvest

Criteria: Results for all questions in Section #1 combined for hunters from NY, VT and other states. For responses to be included in a particular zone, respondents had to indicate they hunted in that zone, regardless of their home state. Hunters responses were applied to each zone they hunted in.

Section #1, Question #4. Which of the following best describes how often you hunt waterfowl? Every year, most years, occasional years, rarely.

Interpretation: Most respondents, regardless of hunting zone, indicated they hunted waterfowl every or most years from 2011-2015. Hunters who received the survey but hunted occasionally or rarely, may have chosen to not respond thus percentages from these categories might be biased low.

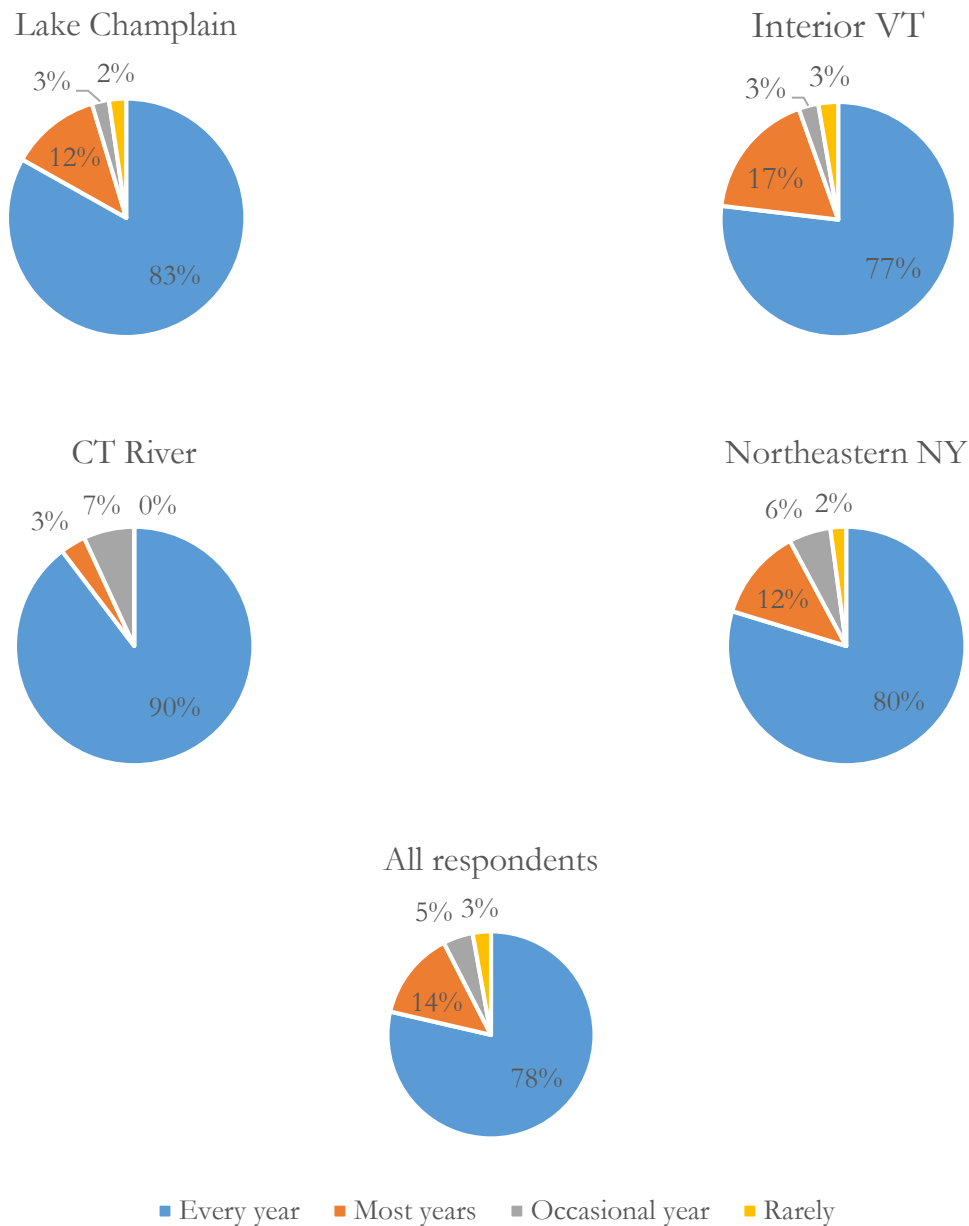


Figure 3. Percentage of waterfowl hunters that indicated how often they hunted waterfowl from 2011-2015 in the Lake Champlain, Interior Vermont, Northeastern New York, Connecticut River zones and all respondents regardless of hunting zone.

Section #1, Question #5. Do you hunt primarily for ducks, geese or ducks and geese equally?

Interpretation: Ducks were the most common response for waterfowl hunters in the Lake Champlain and Interior Vermont zone while hunters in the Northeastern NY zone chose ducks and geese equally as the most frequent response. The percentage of hunters who indicated they primarily hunted for geese in the Northeastern NY zone (25%) was greater than hunters indicated in Interior VT (15%) and Lake Champlain zones (10%). As a resource, geese may be more important in the Northeastern NY zone, relative to the other hunting zones.

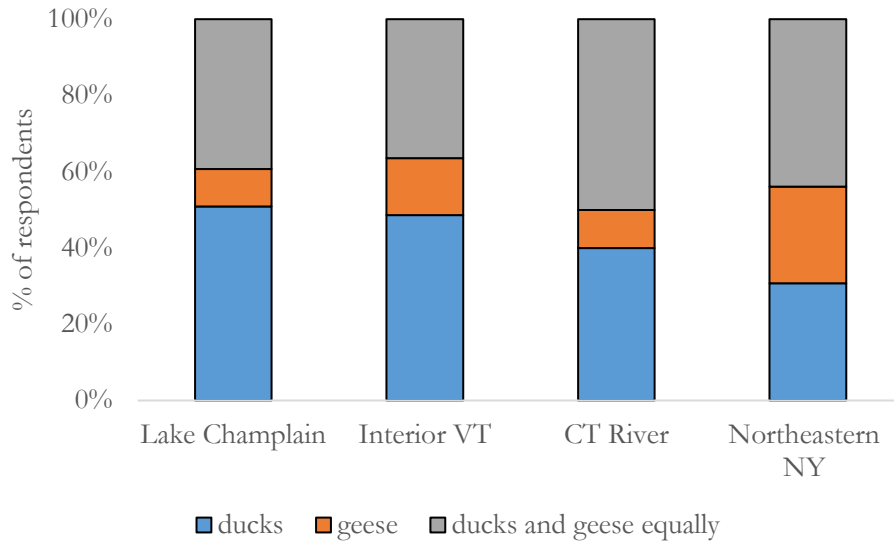


Figure 4. Percentage of respondents that indicated they primarily hunted ducks, geese or both equally for Lake Champlain, Interior Vermont, Northeastern New York, Connecticut River zones.

Section #1, Question #6. When do you do most of your waterfowl hunting?

Section #1, Question #7. Do you find waterfowl bag limits difficult to understand?

Interpretation: Regardless of hunting zone, few (< 12%) hunters do most of their hunting on weekdays. Hunters either hunt weekends or split their time equally between weekdays and weekend hunting. Among the hunting zones, Northeastern NY hunters selected mostly weekends most frequently, while Interior Vermont hunters chose mostly weekend least frequently. Northeastern NY hunters found waterfowl bag limits more difficult to understand, relative to the three other hunting zones, but this percentage was still relatively low (15.8%).

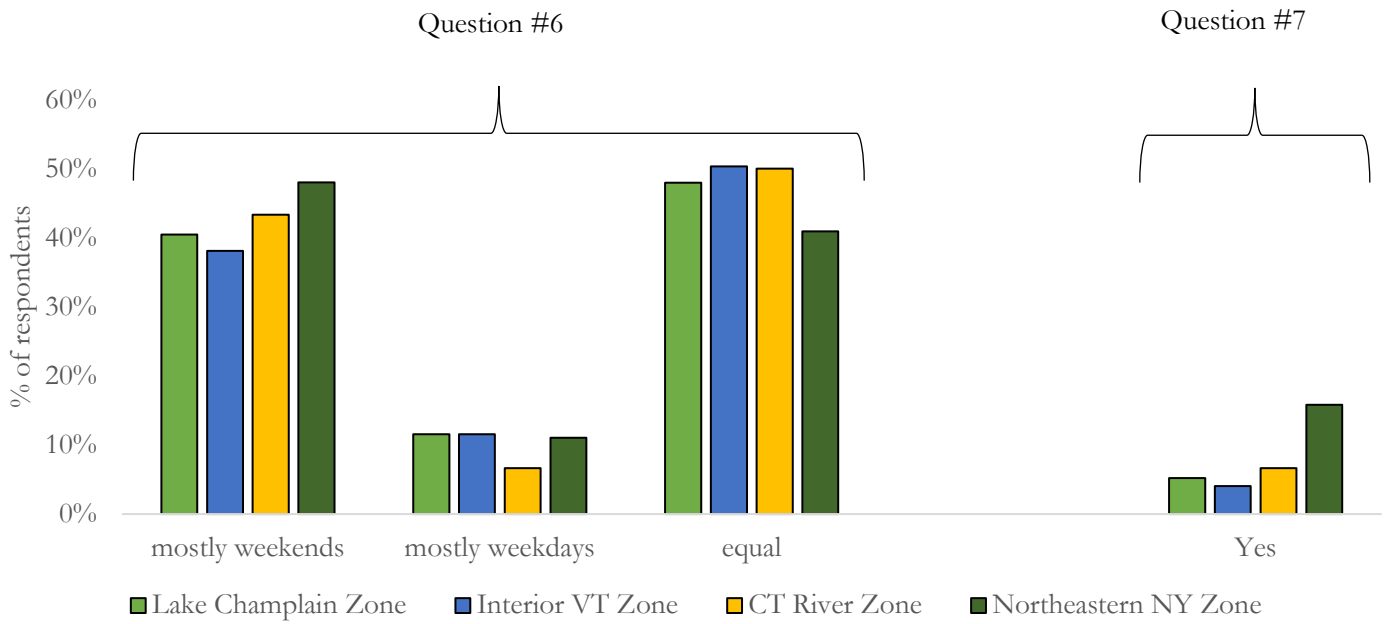


Figure 5. Percentage of respondents that indicated they do most of their hunting on weekends, weekdays or both equally and whether they find waterfowl bag limits difficult to understand for Lake Champlain, Interior Vermont, Northeastern New York, Connecticut River zones separately.

Section #1, Question #8. In an average hunting season how many days do you devote to the waterfowl listed below?

Interpretation: Most hunters devoted > 1 of their waterfowl hunting days to dabblers and Canada geese, regardless of the zone they indicated they hunted. Divers were targeted > 1 days by about 60% of hunters in all zones. Mergansers were never a large proportion of days spent waterfowl hunting. Snow geese comprised the greatest amount of days devoted to waterfowl hunting for Northeastern New York zone, relative to the other zones but even here it did not comprise many days.

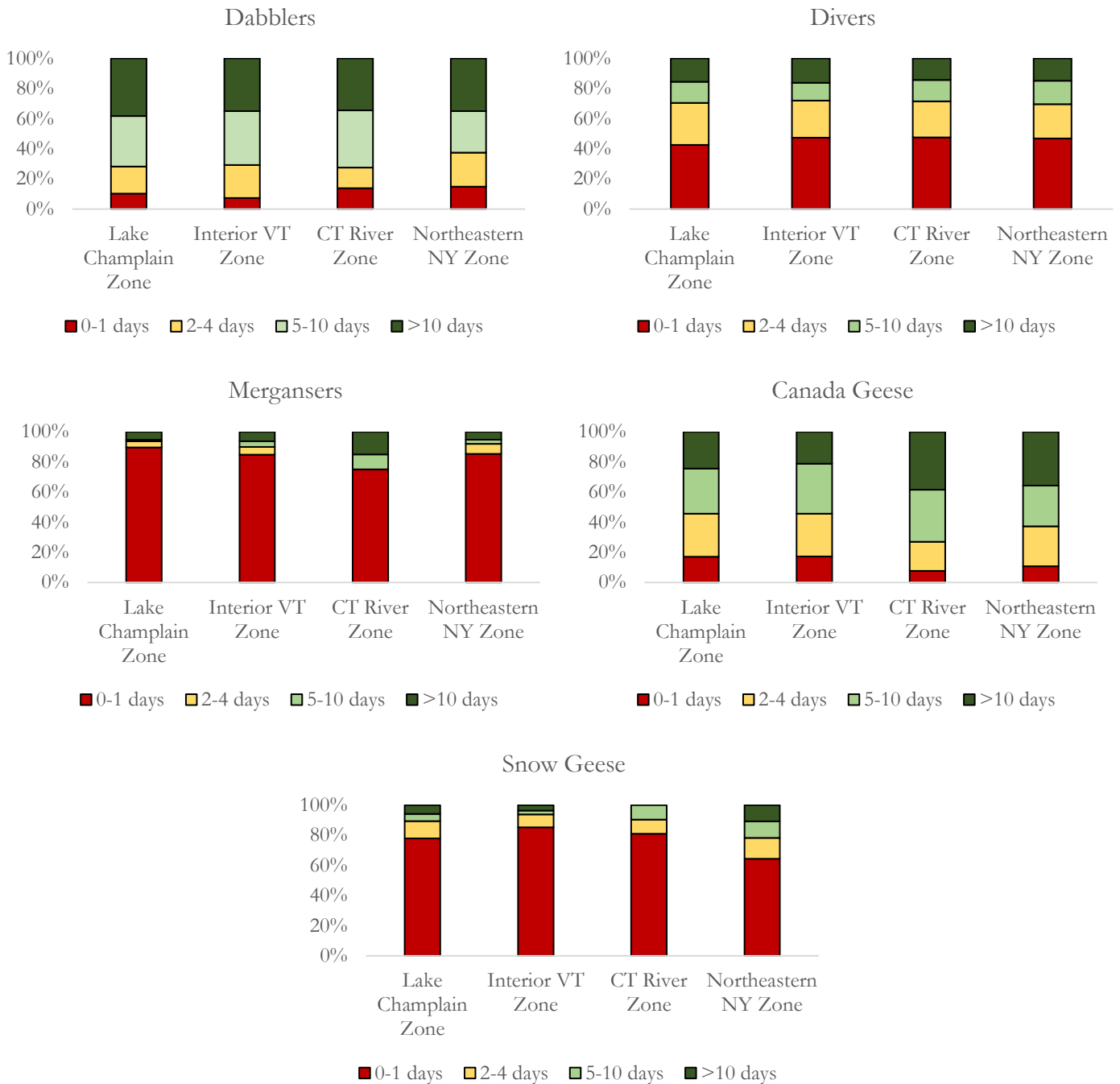


Figure 6. Percentage of respondent who indicated they spent 0-1 days, 2-4 days, 5-10 days or >10 days hunting dabblers, divers, mergansers, Canada geese or snow geese for each hunting zone.

Season Structure and Preference

Criteria: Results for most questions in this section are presented separately for hunters from NY and VT. Sample sizes from hunters in other states were low, so results are not shown for those states. For their responses to be included in a particular state, respondents had to indicate they resided in either NY or VT. Hunters responses were applied to each and every zone they indicated they hunted in but their responses were not tabulated for zones that they didn't hunt in.

Section #2, Question #1. When do you prefer the following **duck** hunting seasons to open?

Interpretation: For Lake Champlain zone, Vermont residents most commonly selected choice was for the duck season to open the second week in October, while NY residents want this same zone to start the first week in October. About 40% of Northeastern New York zone hunters prefer the duck season to open the first week in October. Around a quarter to one third of hunters had no preference for when the duck season opened, regardless of where they lived or what zone they hunted in.

Table 3. Number and percentage of hunters in Vermont and New York by their preferred times for opening day of duck season by management zone.

Management Zone Preferences for opening day	VT Residents		NY Residents		VT & NY Residents	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Lake Champlain						
1st week in October	31	25.6%	13	35.1%	44	27.8%
2nd week in October	39	32.2%	9	24.3%	48	30.4%
3rd week in October	12	9.9%	4	10.8%	16	10.1%
after 21st of October	13	10.7%	2	5.4%	15	9.5%
No Preference	26	21.5%	9	24.3%	35	22.2%
Interior VT						
1st week in October	37	28.5%	1	33.3%	38	28.6%
2nd week in October	39	30.0%	1	33.3%	40	30.1%
3rd week in October	15	11.5%	0	0.0%	15	11.3%
after 21st of October	4	3.1%	0	0.0%	4	3.0%
No Preference	35	26.9%	1	33.3%	36	27.1%
Northeastern NY						
1st week in October	3	33.3%	97	39.0%	100	38.8%
2nd week in October	2	22.2%	50	20.1%	52	20.2%
3rd week in October	1	11.1%	17	6.8%	18	7.0%
after 21st of October	0	0.0%	28	11.2%	28	10.9%
No Preference	3	33.3%	57	22.9%	60	23.3%
Connecticut River						
1st week in October	9	39.1%	0	0.0%	9	37.5%
2nd week in October	4	17.4%	0	0.0%	4	16.7%
3rd week in October	0	0.0%	0	0.0%	0	0.0%
after 21st of October	0	0.0%	0	0.0%	0	0.0%
No Preference	10	43.5%	1	100.0%	11	45.8%

Section #2, Question #2. When do you prefer the following **goose** hunting seasons to open?

Interpretation: For Lake Champlain zone, Vermont residents most commonly selected choice was for the goose season to open the second week in October, while NY resident's most common choice was no preference. For the Interior Vermont zone, Vermont residents chose equally between the goose season opening the first week in October and having no preference. For the Northeastern NY zone, NY resident most commonly selected the first week in October for the goose season to open.

Table 4. Number and percentage of hunters in Vermont and New York by their preferred times for opening day of goose season by management zone.

Management Zone Preferences for opening day	VT Residents		NY Residents		VT & NY Residents	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Lake Champlain						
1st week in October	41	34.5%	9	25.0%	50	32.3%
2nd week in October	30	25.2%	11	30.6%	41	26.5%
3rd week in October	8	6.7%	3	8.3%	11	7.1%
after 21st of October	5	4.2%	1	2.8%	6	3.9%
No Preference	35	29.4%	12	33.3%	47	30.3%
Interior VT						
1st week in October	46	35.4%	0	0.0%	46	34.6%
2nd week in October	24	18.5%	1	33.3%	25	18.8%
3rd week in October	6	4.6%	1	33.3%	7	5.3%
after 21st of October	8	6.2%	0	0.0%	8	6.0%
No Preference	46	35.4%	1	33.3%	47	35.3%
Northeastern NY						
1st week in October	4	44.4%	96	38.1%	100	38.3%
2nd week in October	0	0.0%	40	15.9%	40	15.3%
3rd week in October	2	22.2%	21	8.3%	23	8.8%
after 21st of October	0	0.0%	28	11.1%	28	10.7%
No Preference	3	33.3%	67	26.6%	70	26.8%
Connecticut River						
1st week in October	8	34.8%	0	0.0%	8	33.3%
2nd week in October	2	8.7%	0	0.0%	2	8.3%
3rd week in October	2	8.7%	0	0.0%	2	8.3%
after 21st of October	0	0.0%	0	0.0%	0	0.0%
No Preference	11	47.8%	1	100.0%	12	50.0%

Section #2, Question #3. Which month do you prefer to have the most waterfowl hunting days open?

Interpretation: For Lake Champlain zone hunters, both Vermont and New York residents chose October as the month they prefer to have the most waterfowl hunting days open but Vermont residents chose equally between November and December for their second and third choice while New York resident preferred more open days in November than December. For Interior Vermont zone, Vermont residents chose October as the month they prefer to have the most waterfowl hunting days open while in Northeastern NY zone, New York residents also chose October as the month they prefer to have the most waterfowl hunting days open.

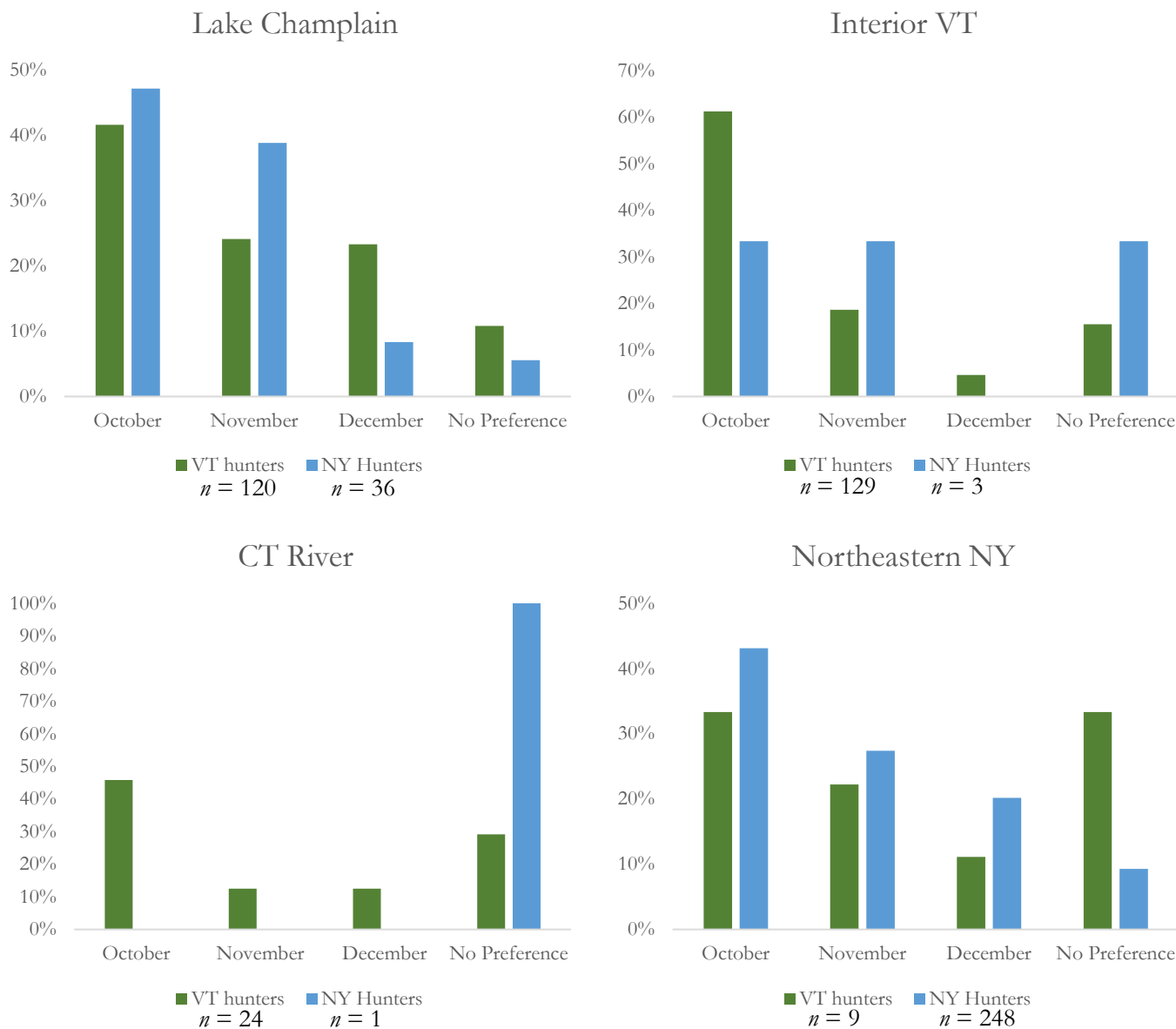


Figure 7. Percentage of respondents that indicated which month they prefer to have the most waterfowl hunting days open for New York and Vermont hunters for all hunting zones.

Section #2, Question #4. Do you prefer a straight or split **duck** season?

Section #2, Question #5. Do you prefer a straight or split **goose** season?

Interpretation: For Lake Champlain zone, Vermont resident's most common choice for the duck season was split while New York resident's most common choice was straight. Goose hunters in the Lake Champlain zone, regardless of residency, chose straight season more than split seasons. For the Interior Vermont zone, Vermont residents chose straight seasons most commonly for duck and goose seasons. For the Northeastern New York zone, New York residents selected straight more than split for duck and goose seasons.

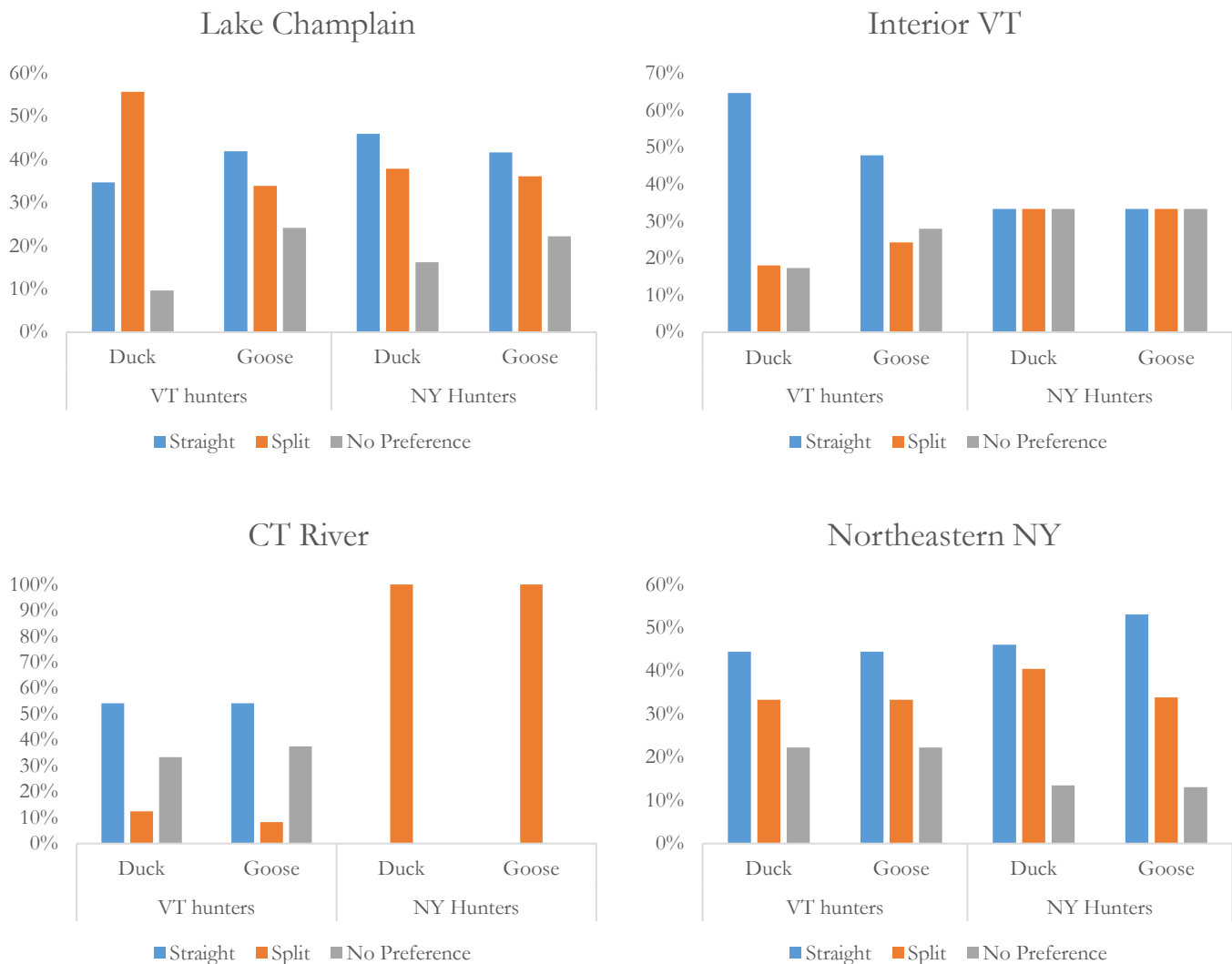


Figure 8. Percentage of respondents that chose either split, straight or no preference for a duck or goose season for residents in Vermont and New York for Lake Champlina, Interior Vermont, Northeastern New York and Connecticut River zones.

Section #2, Question #6. If the duck season is split, what is your preference for the length of the closure?

Criteria: Results for this question combined hunters from NY, VT and other states.

Interpretation: Regardless of hunting zone, most waterfowl hunters prefer a 1 or 2 week closure (very little difference between the two) if the duck season was split. A minority of hunters indicated they preferred a < 1 week or > 2 week split.

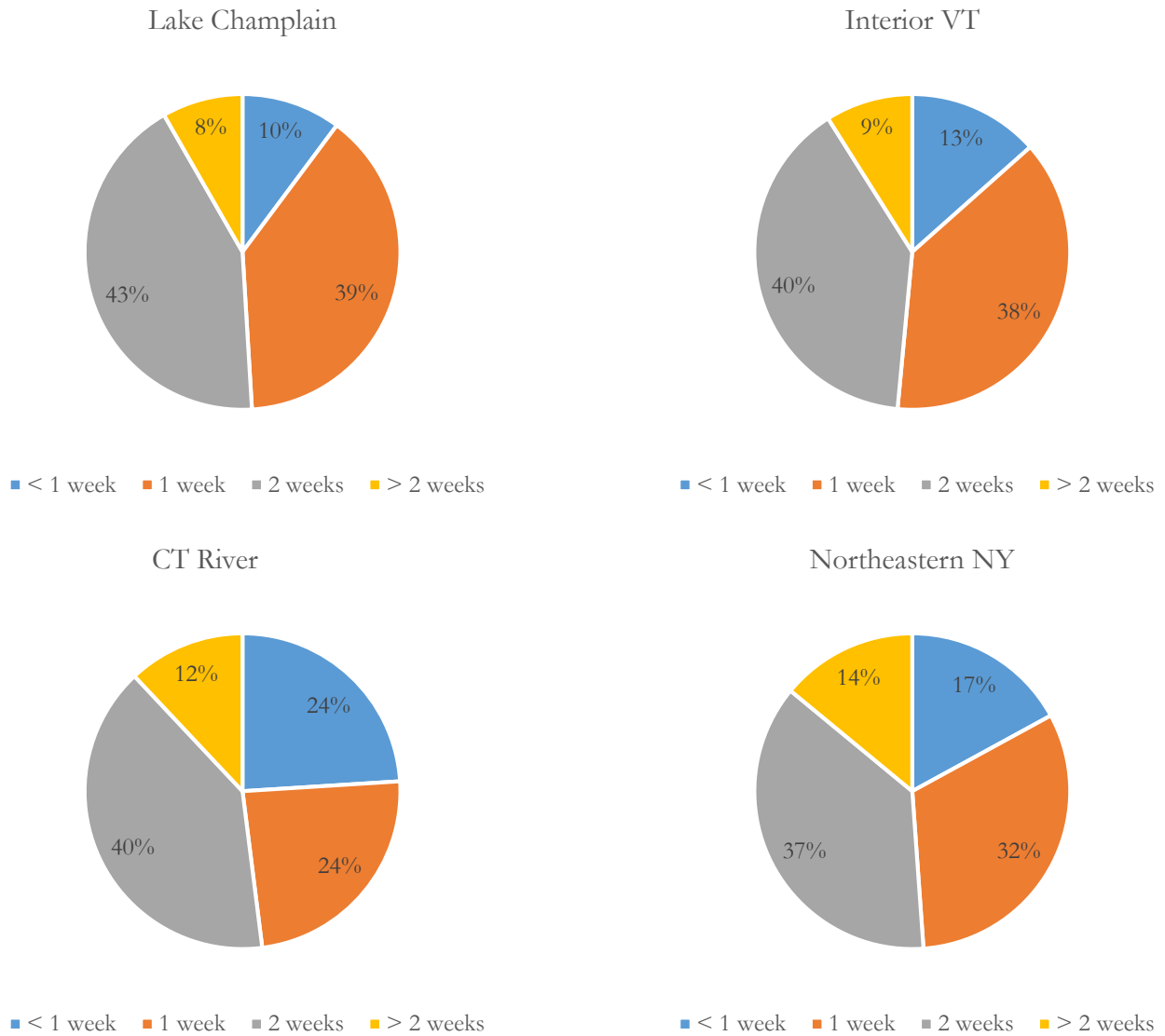


Figure 9. Percentage of respondents that chose < 1 week, 1 week, 2 weeks, or > 2 weeks for their preference for the length of the closure for the duck season for Lake Champlina, Interior Vermont, Northeastern New York and Connecticut River zone hunters.

Section #2, Question #7. For Northeastern NY Zone Hunters only: How important is it that the opening day of goose season **is not** on the same opening day as deer season?

Criteria: Hunters could be from any state but they must have indicated they hunted Northeastern NY zone.

Interpretation: Most (60%) hunters who indicated they hunted in the Northeastern NY zone believe it is either important or very important that the opening day of goose season **is not** on the same opening day as deer season.

Northeastern NY Zone

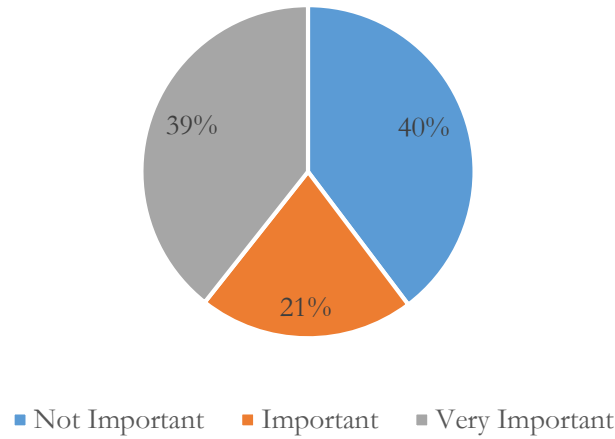


Figure 10. Percentage of respondents who indicated that it was not important, important or very important that the opening day of goose season is not on the same opening day as deer season for hunters in the Northeastern New York zone only.

Section #2, Question #8. For Lake Champlain Zone Hunters Only: How much of a conflict is it when bass tournaments are held during duck season on Lake Champlain?

Criteria: Hunters could be from any state but they must have indicated they hunted Lake Champlain Zone.

Interpretation: About half (48%) of Lake Champlain zone hunters indicated that bass tournaments are not a conflict when held during duck season. Thirteen percent of hunters indicated that bass tournaments were such a conflict that they would not hunt.

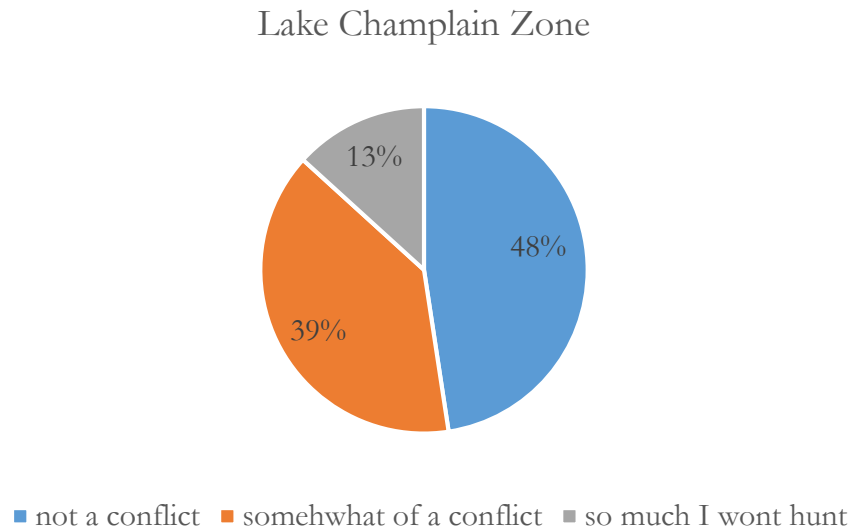


Figure 11. Percentage of respondents who indicated that it was not a conflict, somewhat of a conflict or so much I won't hunt regarding when bass tournaments are held during duck season on Lake Champlain for hunters in the Lake Champlain zone only.

Section #2, Question #9. For Lake Champlain and Interior Vermont Zone Hunters only: Would you prefer Resident Canada goose season start September 1st or after the Labor Day weekend?

Criteria: Hunters could be from any state but they must have indicated they hunted in either Lake Champlain Zone or Interior VT zone.

Interpretation: Regardless of zone, 53% of respondents indicated they preferred resident Canada goose season to begin on September 1st.

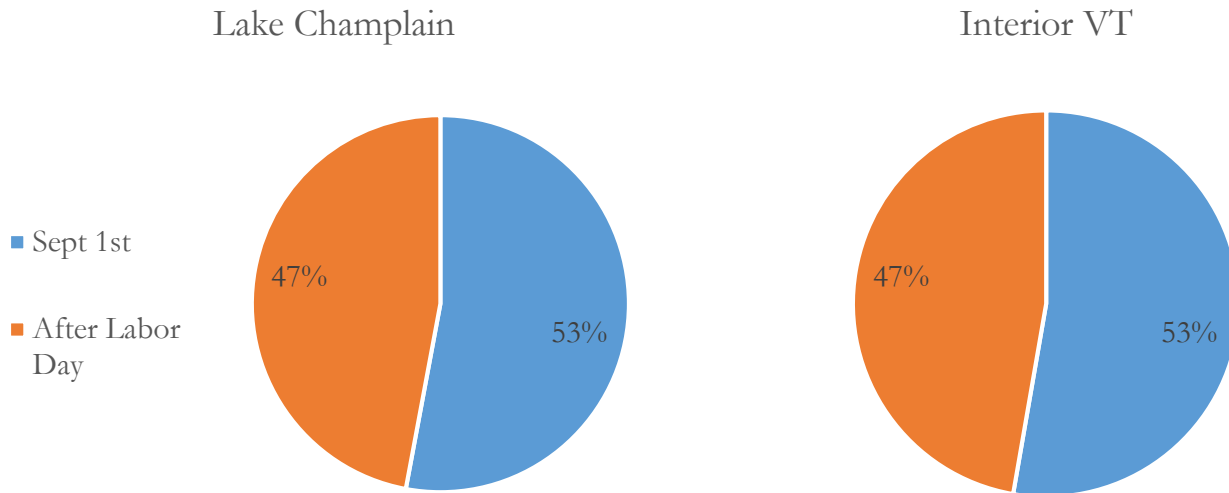


Figure 12. Percentage of respondents who preferred resident Canada goose season to open on September 1st or after labor day for Lake Champlain and Interior Vermont zone hunters only.

Section #2, Question #10. What day of the week do you prefer migratory goose season to open?

Criteria: Results for this question combined hunters from NY, VT and other states.

Interpretation: For Lake Champlain (40%) and Interior Vermont zones (42%), respondents most frequently chose no preference for when they preferred migratory goose season to open. For Northeastern New York (46%) and Connecticut River (40%) zones, respondents most frequently chose Saturday for when they preferred migratory goose season to open.

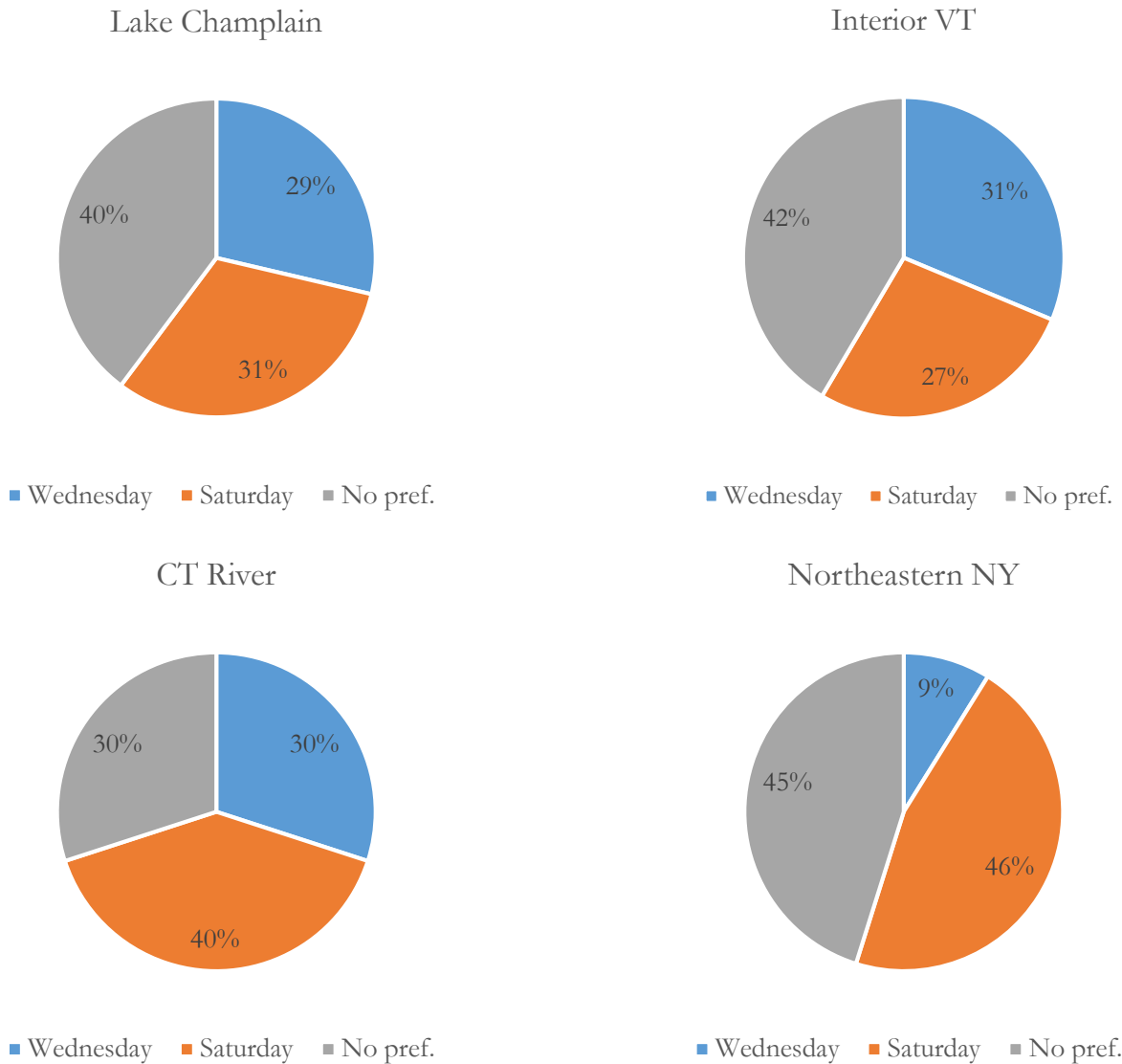


Figure 13. Percentage of respondents who preferred a Wednesday, Saturday or showed no preference when asked what day of the week do you prefer migratory goose season to open for Lake Champlina, Interior Vermont, Northeastern New York and Connecticut River zone hunters.

Section #2, Question #11. What day of the week do you prefer migratory duck season to open?

Criteria: Results for this question combined hunters from NY, VT and other states

Interpretation: For Lake Champlain (45%), Interior Vermont (44%) and Connecticut River (43%) zones respondents most frequently chose Wednesday as the day of the week they preferred migratory duck season to open. For Northeastern New York (53%) zone, respondents most frequently chose Saturday for when they preferred migratory duck season to open.

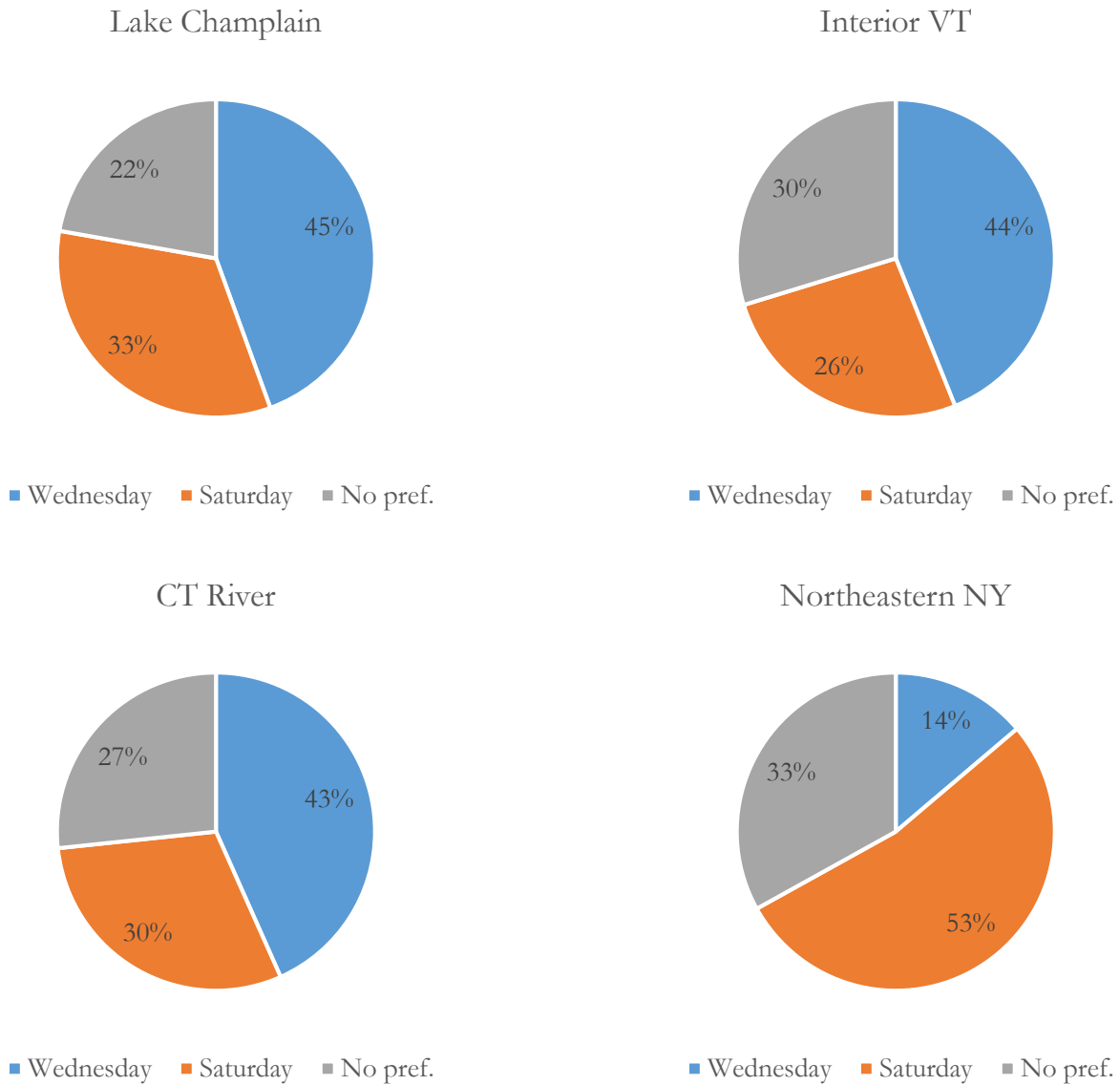


Figure 14. Percentage of respondents who preferred a Wednesday, Saturday or showed no preference when asked what day of the week do you prefer migratory duck season to open for Lake Champlina, Interior Vermont, Northeastern New York and Connecticut River zone hunters.

Section #2, Question #12. Where do you learn about any changes to the waterfowl hunting regulations?

Interpretation: The most common outlet where New York residents learn about any changes to waterfowl hunting regulations was fish and wildlife agency websites (36%), followed by friends (23%), waterfowl syllabus (23%), the newspaper (11%) and social media (7%). The most common outlet where Vermont residents learn about any changes to waterfowl hunting regulations was the waterfowl syllabus (40%) followed by fish and wildlife agency websites (30%), friends (17%), the newspaper (9%) and social media (4%).

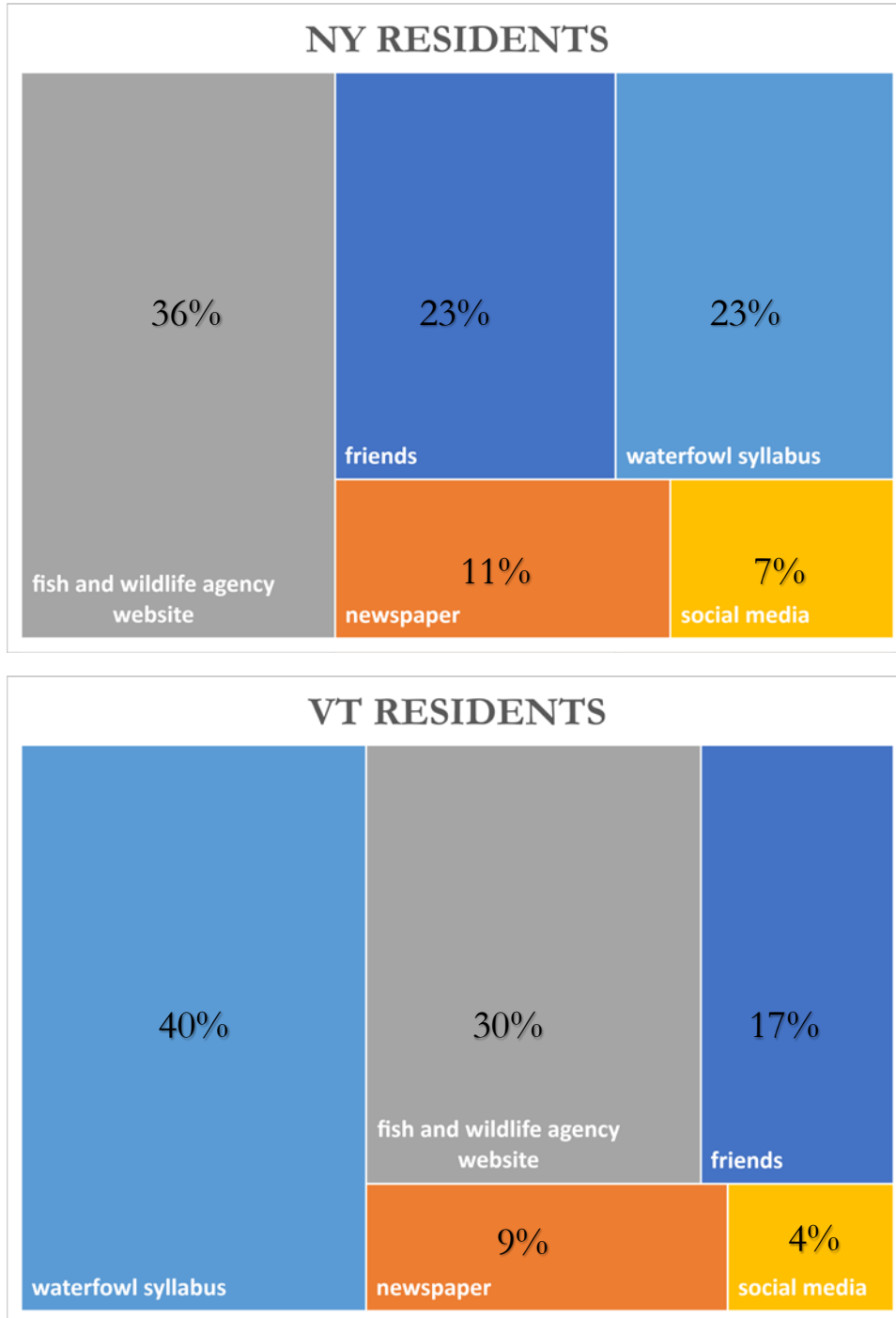


Figure 15. The distribution of where respondents learned about changes to waterfowl hunting regulations for New York residents (top) and Vermont residents (bottom). Larger blocks correspond to more respondents selecting that response.

Hunter Accessibility and Satisfaction

Section #3, Question #1. Which type of land do you hunt most often for waterfowl?

Interpretation: Regardless of hunting zone, the most common ownership type of land hunted for Vermont residents was public state lands, followed by private with permission, public federal lands, private owned by them and private with lease. For New York residents, the most common ownership type of land hunted was private with permission followed by public state lands, private owned by them, public federal lands and private with lease.

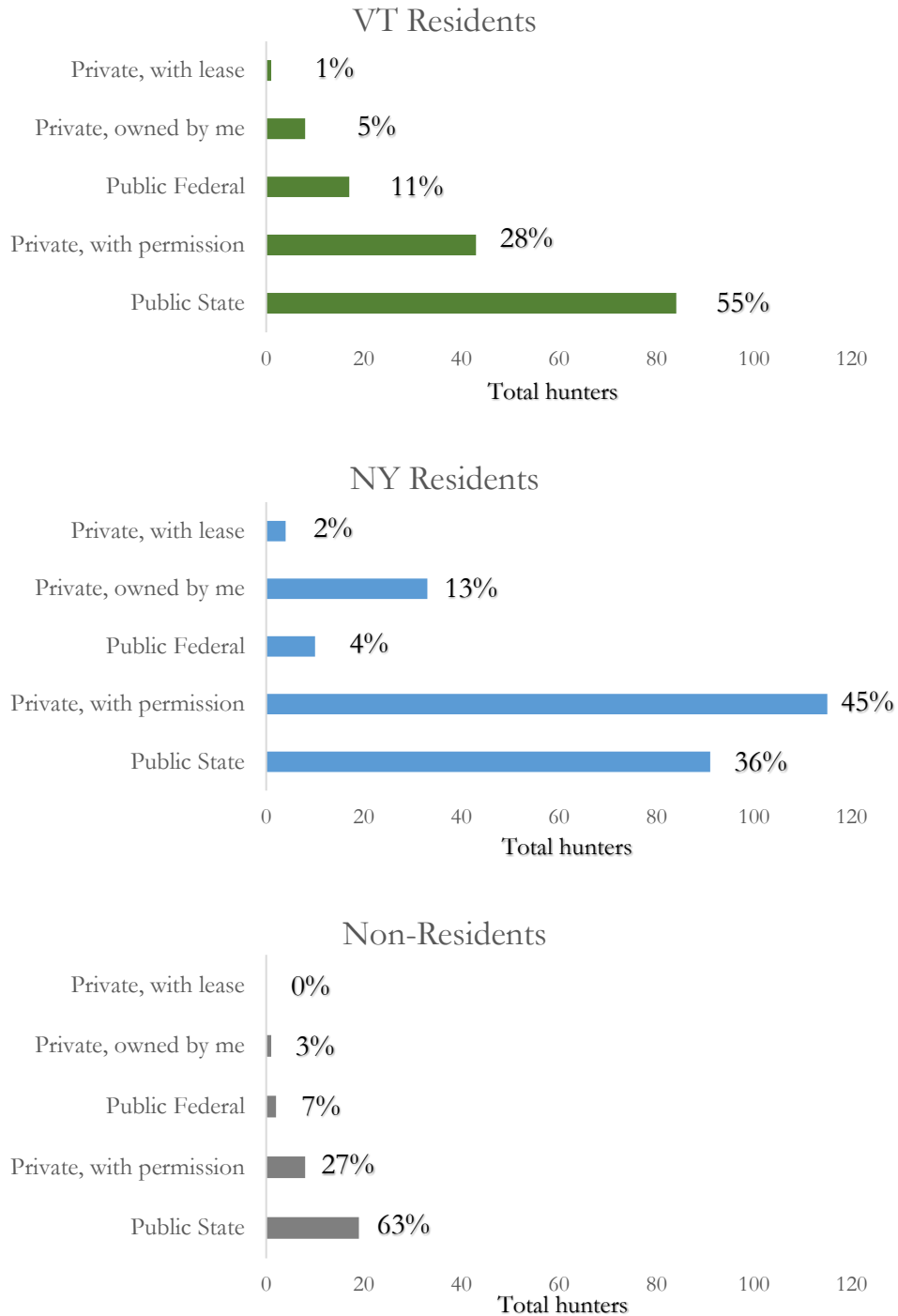


Figure 16. The number of hunters who indicated the type of land they hunt most often for waterfowl for Vermont residents (top; green), New York residents (middle; blue) and non-Vermont or New York residents (bottom; gray).

Section #3, Question #2. If you hunt waterfowl on public lands, how would you best describe, on average, the amount of other people hunting waterfowl on the same lands?

Interpretation: For Vermont residents, regardless of hunting zone, the most common response for how hunters would describe the amount of other people hunting waterfowl on the same lands was some hunters but my experience does not decline (47%). More hunters believed there were not enough hunters around (7%) than so many hunters they will leave or not come back (2%). For New York residents, regardless of hunting zone, the most common response for how hunters would describe the amount of other people hunting waterfowl on the same lands was some hunters but my experience does not decline (49%). More hunters believed there were not enough hunters around (8%) than so many hunters they will leave or not come back (3%).



Figure 17. The number (and percentage to the right of the bar) of hunters who indicated, if they hunted waterfowl on public lands, how they would best describe the amount of other people hunting waterfowl on the same lands for Vermont residents (top; green) and New York residents (bottom; blue).

Section #3, Question #3. Were you satisfied with the Zone boundary change between the Lake Champlain Zone and Interior Vermont Zone in 2011?

Interpretation: Most Vermont hunters (55%) had no opinion or were satisfied (41%) regarding the Zone boundary change between the Lake Champlain Zone and Interior Vermont Zone in 2011.

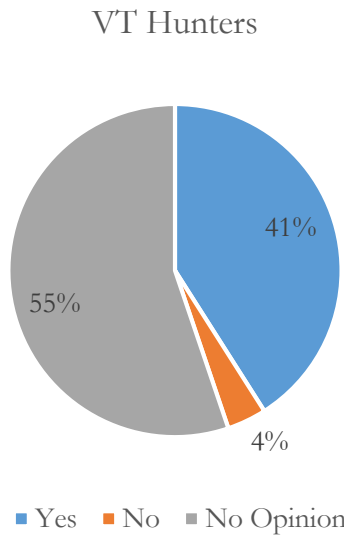


Figure 18. The percentage of Vermont hunters, who were satisfied, not satisfied or had no opinion with the Zone boundary change between the Lake Champlain Zone and Interior Vermont Zone in 2011.

Section #3, Question #4. Were you satisfied with the Zone boundary change between New York's Northeastern Zone and Southeastern Zone in 2011?

Interpretation: Most New York hunters (59%) had no opinion or were satisfied (30%) regarding the Zone boundary change between New York's Northeastern Zone and Southeastern Zone in 2011.

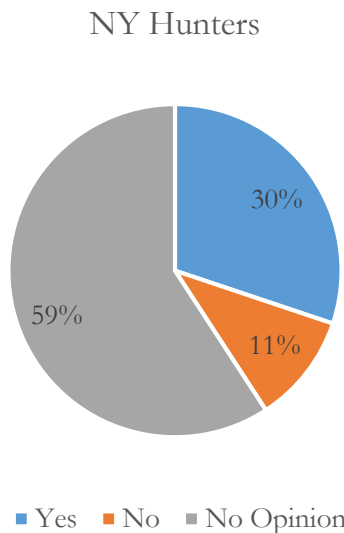


Figure 19. The percentage of New York hunters, who were satisfied, not satisfied or had no opinion with Zone boundary change between New York's Northeastern Zone and Southeastern Zone in 2011.

Section #3, Question #5. If you do not get to waterfowl hunt as much as you would like, what is/are the reasons?

Interpretation: For Vermont and New York residents, the most common reason that hunters do not get to hunt waterfowl as much as they would like was not enough free time. New York residents indicated their second most common reason was competition with other hunting seasons while Vermont residents indicated not enough waterfowl as their second most common response. Financial costs, access to public lands and regulation complexity were the least common responses for both states.



Figure 20. The number of hunters who indicated reasons they do not get to hunt waterfowl as much as they would like for Vermont residents (top; green) and New York residents (bottom; blue).

Section #3, Question #6. In your opinion, what would most improve your overall waterfowl hunting experience?

Interpretation: Vermont and New York residents were asked to rank (1= most important; 6 = least important) which factors would most improve your overall waterfowl hunting experience. Vermont residents indicated greater accessibility to hunting lands was most important while New York residents indicated different start and close season dates was most important. Both Vermont and New York residents agreed that different zone boundary lines was least important to their overall waterfowl hunting experience.

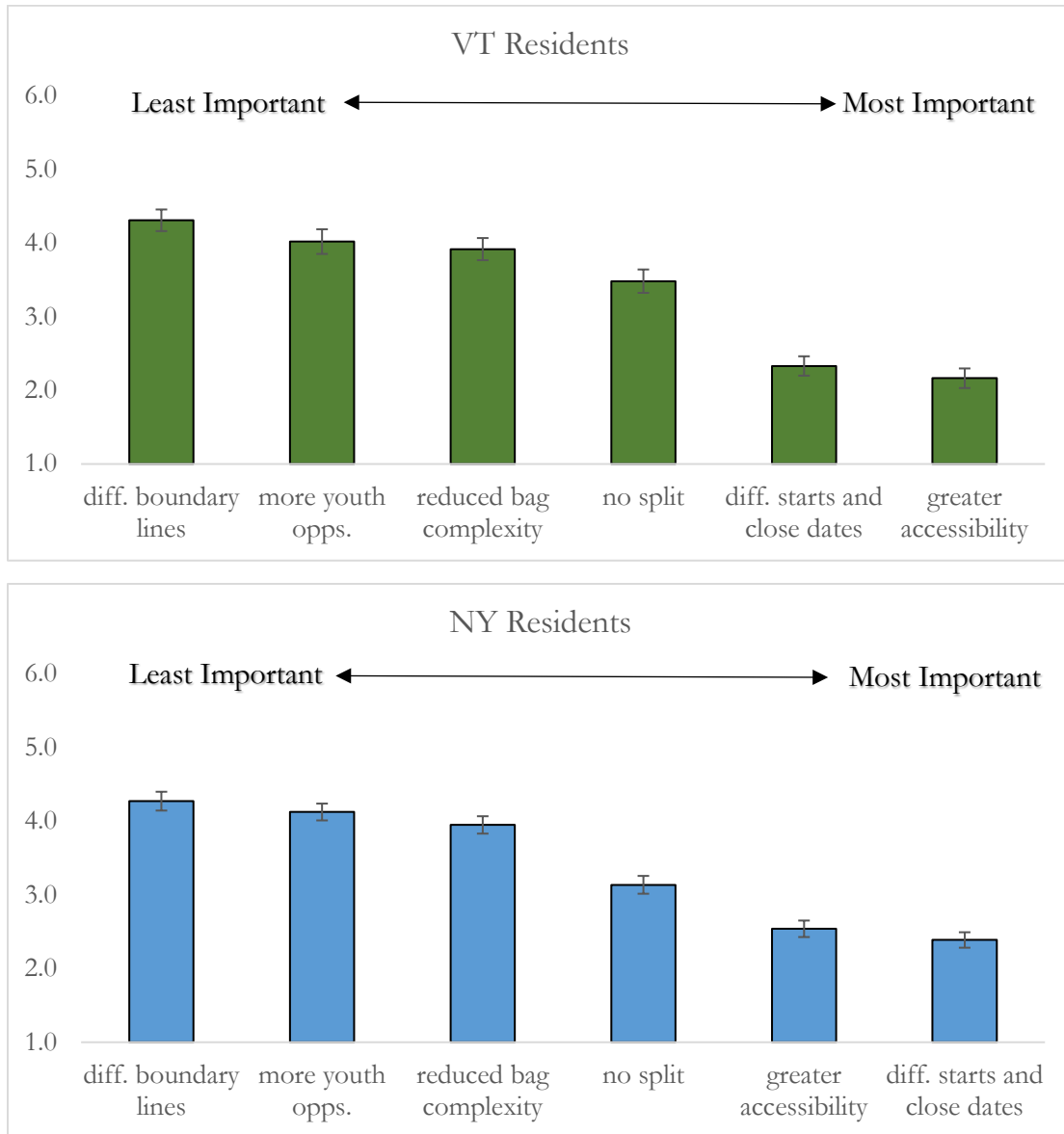


Figure 21. Average ranks (with standard error bars) of factors that would most improve overall waterfowl hunting experience for Vermont hunters (top; green) and New York hunters (bottom; blue).

Section #3, Question #7 How satisfied have you been with your waterfowl hunting experience in the past 5 years?

Interpretation: Most (77%) of Vermont residents indicated they were either satisfied or somewhat satisfied with their waterfowl hunting experience in the past 5 years. Most (79%) of New York residents indicated they were either satisfied for somewhat satisfied with their waterfowl hunting experience in the past 5 years. Few Vermont (17%) or New York Residents (14%) indicated they were not satisfied with their waterfowl hunting experience in the past 5 years.

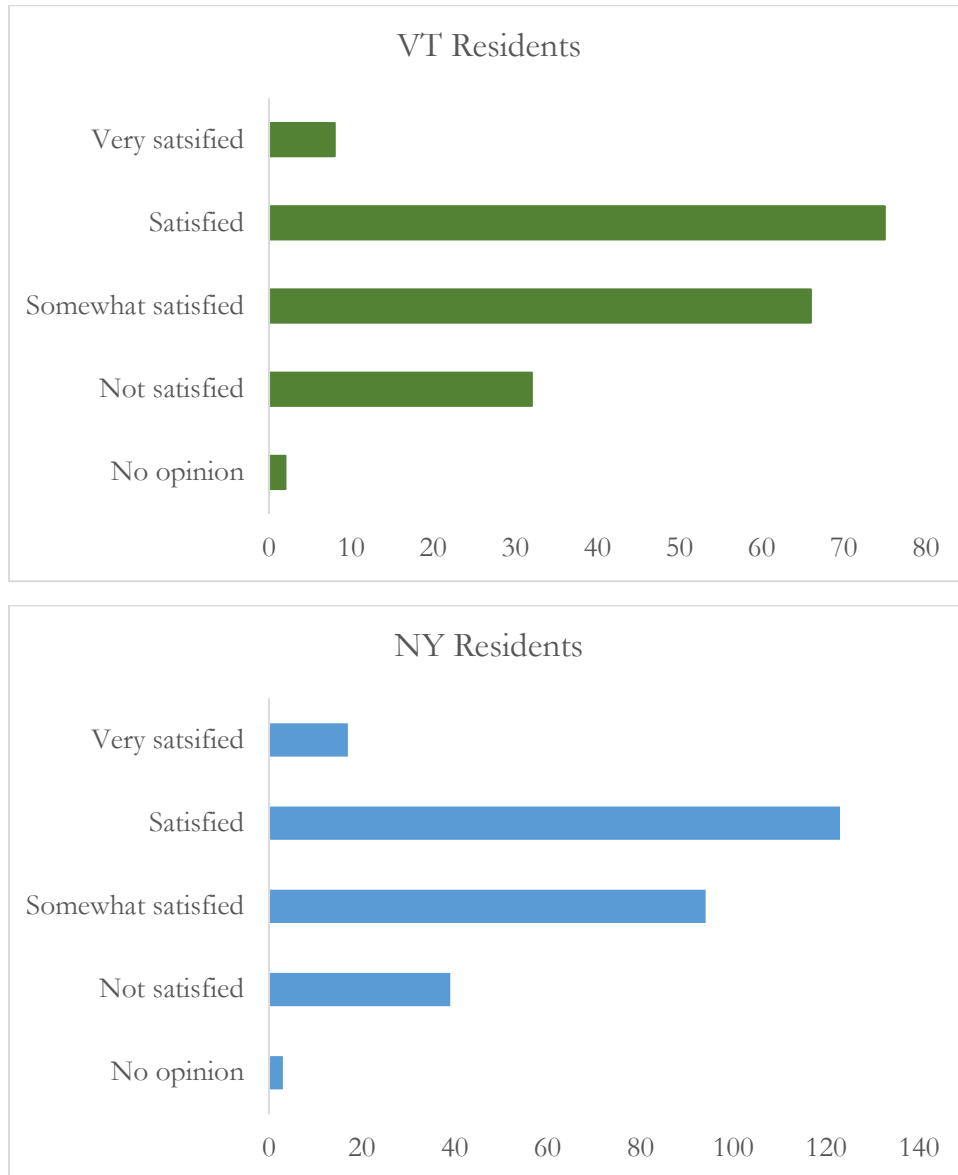


Figure 22. The number of hunters who indicated how satisfied they have been with their waterfowl hunting experience in the past 5 years for Vermont residents (top; green) and New York residents (bottom; blue).

Temporal Comparisons

Table 5. Comparisons of eight different metrics between a previous survey of waterfowl hunters (Brown and Enck 2004) and this survey for Vermont and New York hunters.

Metric	State	Cornell Survey (2004)	This Survey (2015)
Useable Surveys	NY	600	498
	VT	521	
Response Rate	NY	63.4%	18.2%
	VT	54.3%	
% Male	NY	97.1%	92.3%
	VT	95.5%	
Average Age	NY	43.5	45.3
	VT	40.1	
% Waterfowl Hunters	NY	91.0%	96.9%
	VT	81.5%	
% Hunted Lake Champlain zone	NY	55.8%	12.8%
	VT	73.3%	
% Hunted Interior VT zone	NY	2.3%	1.0%
	VT	78.9%	
% Hunted NE NY zone	NY	88.5%	92.4%
	VT	8.9%	

Table 6. Temporal comparisons of preferences for opening day of waterfowl hunting in Lake Champlain and Interior Vermont zones from a prior survey of hunters (Brown and Enck) and this one (2015) for Vermont and New York Residents.

Management Zone	Cornell Survey (2004)		This Survey (2015)	
	VT	NY	VT	NY
	Residents	Residents	Residents	Residents
<i>Preferences for opening day</i>	%	%	%	%
Lake Champlain				
1st week in October	39.1%	51.0%	25.6%	35.1%
2nd week in October	46.8%	35.1%	32.2%	24.3%
3rd week in October	14.1%	13.9%	9.9%	10.8%
Interior VT				
1st week in October	55.3%	33.3%	28.5%	33.3%
2nd week in October	35.6%	53.4%	30.0%	33.3%
3rd week in October	9.1%	13.3%	11.5%	0.0%

Discussion and Conclusions

Response Rate and Characteristics of Respondents

One advantage of collecting data from mail surveys compared to public meetings is the potential for a larger sample size. In particular, public meetings typically attract the most vested and vocal users and management recommendations can potentially be influenced by these groups. Our survey responses came from waterfowl hunters with a broad background that varied greatly by age, hunting experience, educational and economic background. Therefore, our results and summaries represent the variation in the entire waterfowl hunting user group, not just those who are vocal at public meetings. In fact, in both Vermont and New York most respondents to our surveys indicated they have been hunting waterfowl < 10 years, which runs counter to the demographics represented at most public meetings.

We received one hundred more responses from New York compared to Vermont waterfowl hunters even though we sent approximately the same amount of surveys to residents in both states. One explanation is because researchers at the State University of New York-Plattsburgh administered this survey and this was clearly indicated on all materials received. New York hunters might have been more likely to respond, believing they were helping a home-state educational institution. Another explanation is New York hunters are more engaged than Vermont hunters in the waterfowl hunting regulation processes. A waterfowl hunter survey by Cornell University (Brown and Enck 2004) found New York hunters had 63.4% while Vermont hunters had a 54.3% response rate. It is unclear why Vermont hunters have a consistently lower response rate compared to New York hunters but regardless, future survey efforts might be improved if the survey administrators are non-state partisan (or at least appear that way) and more surveys are sent to Vermont residents relative to New York.

We were surprised only 13% of New York residents indicated they hunted waterfowl in the Lake Champlain zone compared to 67% of Vermont residents. One explanation is relative to each state, the Lake Champlain zone is a bigger attraction for Vermont residents. There are potentially more real (i.e., public hunting areas) and perceived waterfowl hunting opportunities for Vermonters in the Lake Champlain zone compared to the Interior Vermont zone, even though much of the land area in Vermont is categorized as the Interior zone (Figure 23). This phenomenon is likely absent in New York as the northeastern New York zone has ample waterfowl hunting opportunities. The other explanation relates to how we selected respondents for our survey. For New Yorkers, we randomly selected respondents based on their HIP information. Specifically, we included individuals whose postal code was at least partially within the Northeastern New York or Lake Champlain zones. When looking at a map of New York waterfowl zones relative to population (Figure 24), it becomes clear, besides Plattsburgh, most of our respondents probably lived far from the Lake Champlain zone and likely hunt there infrequently. Future survey efforts like ours should stratify random sample to ensure more Lake Champlain zone hunters from New York get included. Because our sample size was low ($n = 37$ hunters) for New York Lake Champlain zone hunters, results from this group should be interpreted with caution.

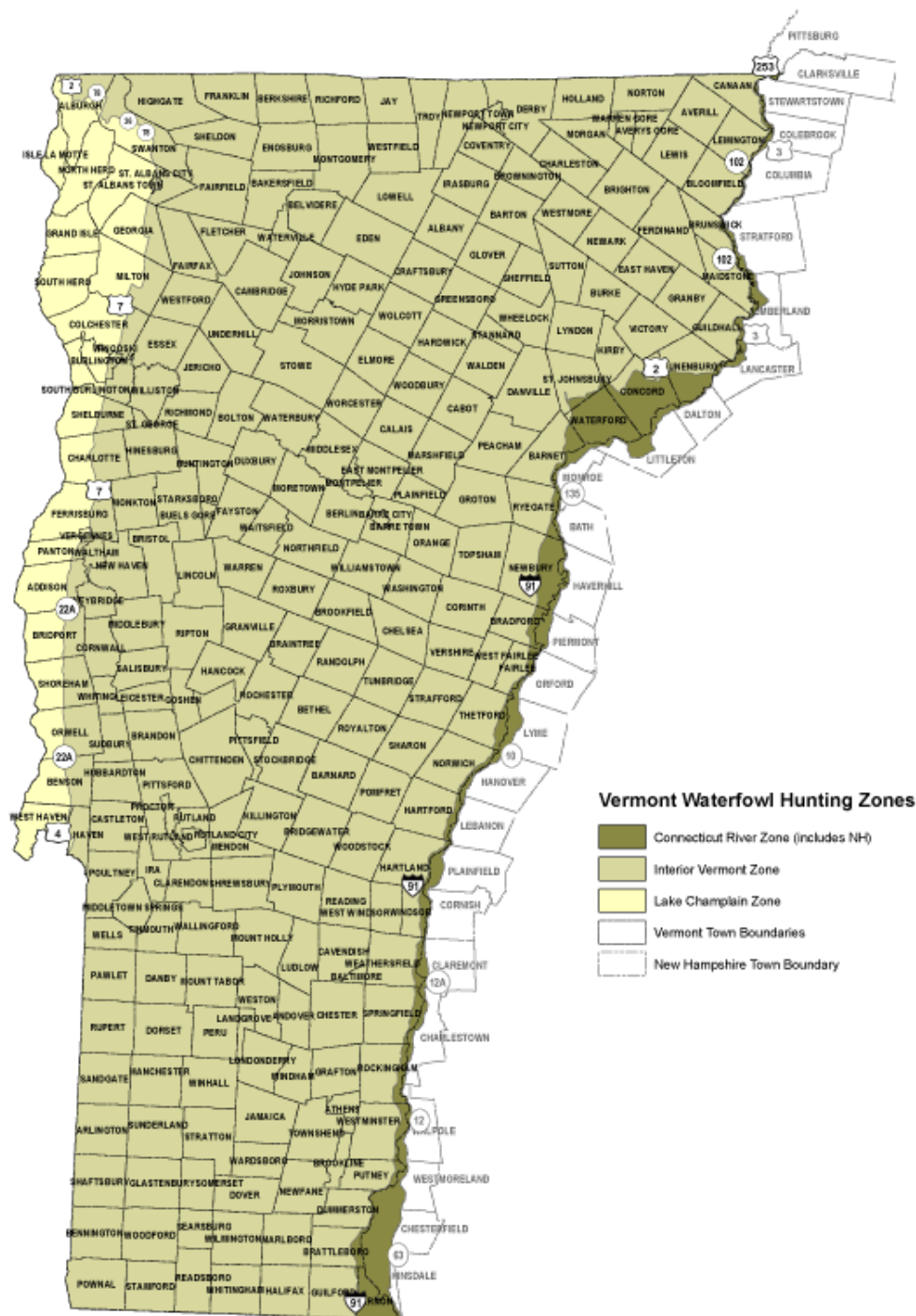


Figure 23. Waterfowl hunting zones for Vermont.

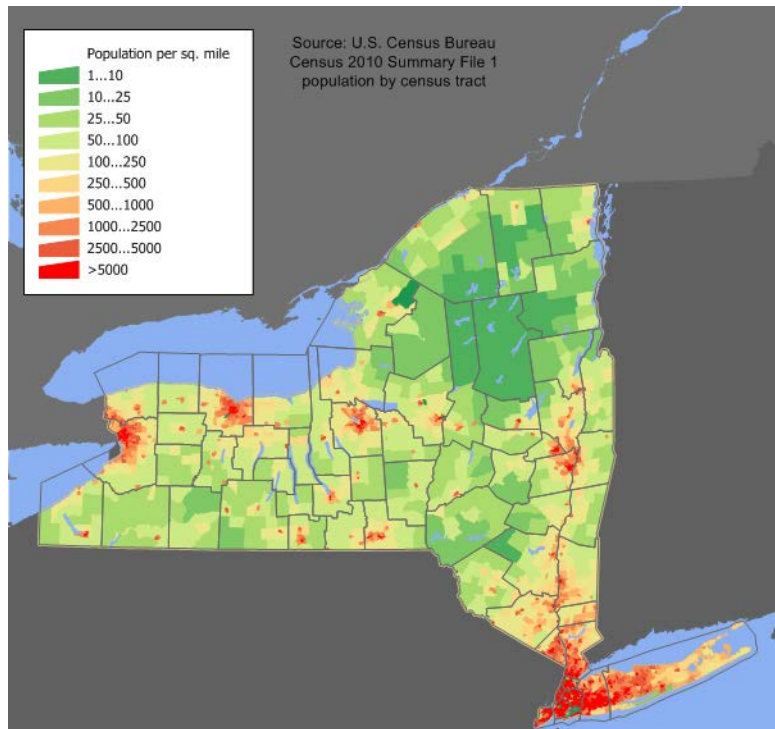


Figure 24. Waterfowl hunting zones for New York (top) and human population density by county in New York (from the 2010 U.S. Census Bureau; bottom).

Waterfowl hunting effort and harvest

Most respondents, regardless of hunting zone, indicated they hunted waterfowl every or most years from 2011-2015. Hunters who received the survey but hunted occasionally or rarely may have chosen not to respond thus, percentages from these categories might be biased high. Of all respondents from both states only 8% indicated they hunted waterfowl occasionally or rarely. This is an important result for harvest managers to acknowledge because it substantiates hunters are active nearly every year, regardless of population changes, weather or other variables that fluctuate annually. In addition, it appears as a group hunters are split in terms of when they do most of their hunting. About half indicated mostly weekends and equal between weekdays and weekends.

Question five in section two revealed most waterfowl hunters hunt primarily for ducks or ducks and geese equally. Geese are not the primary species hunted for most waterfowlers however, geese may be more important as a resource in the Northeastern New York zone, relative to other hunting zones. Question eight in section two took a deeper look at the effort devoted to different waterfowl groups. Hunters revealed, from a days devoted perspective, priority is greatest for dabbling ducks, followed by Canada geese, diving ducks, then snow geese and mergansers. This finding is likely consistent with the type of birds most frequently encountered although mergansers and snow geese are abundant but apparently not targeted as frequently and probably for different reasons. For mergansers, limited hunting days are devoted to them likely because of their notoriety as poor table fare. Snow geese on the other hand have seen drastic population increases throughout their North American range (Abraham et al. 2005, Koons et al. 2014) however; they require more decoys and overall more effort (i.e., scouting, seeking land permission, etc.) to hunt. However, given their population status, range and the amount of time they spend in New York and Vermont each fall and spring, most hunters in each state likely underutilize snow goose hunting opportunities. Outreach efforts that promote snow goose hunting as a resource in northern New York and Vermont might be one way to attract new users while also helping to curtail burgeoning snow goose populations.

Season Structure and Preference

Questions one and two in this section asked hunters when they prefer duck and goose seasons to open, respectively. For duck season in Lake Champlain and Interior Vermont zones, responses were generally equivocal, between opening the first or second week in October. Hunters who believe ducks arrive later in the season likely contributed heavily to this result because they want to optimize late-season hunting days. Most Northeastern New York zone hunters preferred duck hunting season to open the first week in October. The likely rationale for an earlier October duck opener is the fear of losing late season days to freeze up, at least in the northeastern New York zone. By contrast, results for goose season were clearer as hunters generally prefer the season to open the first week in October, regardless of zone, likely because geese are typically abundant in early October. Goose season in the Northeastern New York zone for the 2017-2018 season is scheduled to open after the 3rd week in October (October 28th) a response only 11% of respondents preferred. However, the US Fish and Wildlife Service 'framework' does not allow State agencies to open the goose season any earlier than it currently is. Therefore, a change to open goose hunting earlier would necessitate a federal framework change and likely a concomitant closure earlier in the year, which may clash with interests of late season goose hunters.

We were surprised in the number of hunters who indicated they had no preference regarding when duck or goose season opened. For instance, in Vermont 35% of hunters indicated they had no preference when goose season opens in the Interior Vermont zone, which represents the same percentage of hunters who preferred the goose season to open the first week in October. In other instances, like NY residents who hunt in the Lake Champlain zone, no preference was the most common response for when the goose season should open. A post-

hoc review of responses revealed, for Vermont and New York residents, average age and averages years hunting waterfowl was less for hunters who indicated no preference versus those who did have a preference (Table 7). Clearly, hunters with more experience hunting waterfowl have developed their preferences for season dates over time. Our finding suggest less experienced and younger hunters don't necessarily have a preference when duck and goose seasons open, which may be useful information for managers as they set season dates.

Table 7. Average age and average years of waterfowl hunting experience for hunters who indicated they had no preference versus hunters who indicated they had a preference on when duck or goose season opened for Vermont and New York residents.

	VT Residents		NY Residents	
	No preference	Had a preference	No preference	Had a preference
Average age	36.6	44.6	42.2	46.6
Average years hunting	12.4	21.7	15.1	24.3

Question three in this section revealed most hunters prefer October to be the month when most days are open to waterfowl hunting. This pattern was especially clear for Vermont residents who hunt the Lake Champlain and Interior Vermont zones. For Vermont residents who hunt Lake Champlain zone there was a split between November and December regarding the month with the second most amount of days open. This contrasts greatly with Interior Vermont zone, where clearly most hunters prefer November to have more open days than December. This pattern (Lake Champlain zone open into December) is consistent with feedback from public meetings where hunters want to hunt “late-season” waterfowl on Lake Champlain where they congregate because inland waters are “iced-up”. This viewpoint is expressed at many public meetings and likely exists for many New York residents who hunt Lake Champlain, although our sample size ($n = 37$) was too small to detect this. As managers, yearly weather patterns are impossible to predict but worth considering because projections for this region are for milder autumn and winter weather (Hayhoe et al. 2008). In addition, waterfowl migration and stop-over duration is changing in some parts of North America (Schummer et al. 2010, Notaro et al. 2016). In years to come, managers should be prepared to accommodate a preference for hunting seasons to extend longer into the season, especially if waterfowl alter their migration timing and favorable hunting conditions exist.

Managers face many challenges when setting season dates and one including competition with other hunting seasons. Although some hunters hunt waterfowl exclusively, most participate in at least one other hunting season (US Department of Interior et al. 2011) and these seasons often overlap with each other. Our results for northeastern New York zone hunters revealed about 6 in 10 hunters find it important or very important the opening day of goose season is not the same opening day as deer season. Another and more recent challenge manager’s encounter is the potential conflict of waterfowl seasons overlapping with bass tournaments. Waterfowlers and anglers compete for similar locations; vegetated shallow water areas of lakes. Bass tournaments on Lake Champlain have increased in frequency and have started to extend longer into fall. In 2017 there is at least one fishing tournament on Lake Champlain scheduled for the 3rd week in October. According to our survey, about 40% of Lake Champlain zone waterfowl hunters indicated it is somewhat of a conflict when bass tournaments coincide with duck season while about 13% indicated they would not hunt when bass tournaments are held during duck season. Moving forward, fish and waterfowl managers should strive to manage these potential conflicts on Lake Champlain and potentially consider appropriate exclusion zones for each user group if conflicts arise.

There were differences regarding where Vermont and New York residents learned about changes to waterfowl hunting regulations. Residents from both states rarely (i.e., < 7% of total) learned about changes from

social media. For New York residents, the New York Department of Conservation website was the most common (36% of total) location where hunters learned of changes followed by friends (23%) and the state waterfowl syllabus (23%). Vermonters learned about hunting regulation changes from the state waterfowl syllabus (40% of total) most commonly followed by Vermont's fish and wildlife agency website (30%). The waterfowl syllabus appears to be more effective at reaching hunters in Vermont relative to New York and this might be related to the amount printed and available for distribution. Vermont prints about 22,000 copies of the waterfowl syllabus each year (a reduction in recent years) and these get distributed to post offices, license agents and interagency departments (D. Sausville personal communication). Unless there are budgetary issues, managers should continue to use all these outlets as they collectively spread important information to a diverse hunting constituency.

Hunter Accessibility and Satisfaction

Accessibility of lands for waterfowlers is an important component of hunter satisfaction (US Department of Interior et al. 2011). Here, our survey revealed the biggest difference between Vermont and New York hunters was the discrepancy with hunting on state-owned public land. Fifty five percent of Vermont hunters indicated state-owned public land was the type of land they hunted most often while only 36% of New York hunters indicated this. The likely explanation is most Vermont hunters (67%) hunted Lake Champlain zone and most lands here are public with state ownership. Only 12% of New York hunters indicated they hunted Lake Champlain zone, thus most of their time is spend hunting inland where apparently they hunt private lands with permission (46%) most frequently. Leases are not a large component of hunting lands in either state and scarcity of federal property (except Missisquoi and Silvio O. Conte National Wildlife Refuges) means the majority of hunters are not typically using federally owned lands for hunting waterfowl. Accessible state owned public lands are important for waterfowl hunters in both states and managers should recognize the value of supporting and enhancing these areas.

Crowding and the density of other hunters around them is another factor that strongly influences waterfowl hunter's experience and satisfaction level (Heberlein 2002, Brunke and Hunt 2007). More than 50% of hunters in both Vermont and New York indicated their experience was not worse with some hunters around or there were not enough waterfowl hunters around (i.e., under-crowded). More hunters chose the latter category than "so many hunters I will leave or not come back". Thirty eight percent of Vermont hunters indicated there were enough hunters around their experience declined while only 25% of New York hunters chose this category. Generally, our survey revealed overcrowding is a not a common description of hunting on public lands in either Vermont or New York for most hunters although some people did believe less people would have increased their experience. It will be important for managers to continue to assess quality of hunting, crowding, pressure and the overall satisfaction of hunters.

We asked hunters to list reasons why they do not get to hunt waterfowl as much as they would like. Managers in both states are apparently doing a fine job with reducing regulation complexity and providing access to public lands as these were among the least commonly selected reasons for not hunting as much as they would like. New York hunters were more likely to select competition with other hunting seasons than Vermont Hunters. Hunters in both states commonly selected (second and third most common choice in VT and NY, respectively) not enough waterfowl as a reason they don't hunt waterfowl as much as they would like. While it is difficult for managers to directly control waterfowl populations in these hunting zones, paradoxically, many continental waterfowl populations are near record high numbers. Hunters are always eager to see more quarry but should also realize the distribution and abundance of waterfowl throughout New York and Vermont during open hunting season is related to many other variables such as weather, habitat suitability and local hunting pressure. More

information and further study is needed to understand the relationship between continental waterfowl populations, statewide waterfowl populations and the linkage to hunter harvest, satisfaction and recruitment.

Temporal Comparisons

Our survey is consistent with others of waterfowl hunters (Enck et al. 1993, US Dept. of Interior et al. 2011, Carver 2015) by revealing the average age of hunters is increasing over time and that most participants are male. Average age of hunters in our survey was in the mid-40s for both states and increased by more than 4 years for Vermont hunters and almost 2 years for New York hunters since 2004 (Brown and Enck 2004). We were surprised by this age increase relative to 2004 because we stratified the distribution of surveys relative to six different age groups for men and women (see Methods); whereas, the previous survey did not account for age of hunters. Even after we evenly distributed the surveys across age groups, we still detected an increase in average age of hunters and this signal likely would have been stronger had our methods matched the former survey. Regardless of methodology, it is clear, similar to other states and Flyways, the average age of waterfowl hunters in Vermont and New York is increasing.

About 8% of respondents in our survey were female which is up by about 5% compared to 2004. However because we specifically sent surveys to women (as identified in the HIP database) and the previous survey did not, these results are probably not directly comparable or indicate an increase in women hunters. The majority of waterfowl hunters in Vermont and New York are male. Recruitment of new and young people as well as females to waterfowling remains a vital endeavor for the future of waterfowl and hunting conservation in general. New York and Vermont waterfowl managers should continue to try to understand factors that influences waterfowl hunter recruitment and retention and avoid setting regulations that cater to only one demographic.

One of the more interesting temporal comparison findings pertains to preferences for opening day of waterfowl hunting. Most Vermont and New York waterfowl hunters' preferences for opening days stayed consistent from 2004 through 2015 for Lake Champlain and Interior Vermont zones. One exception occurred for the Interior Vermont zone where about 55% (most common response) of Vermont hunters in 2004 preferred the season to begin the first week in October while in 2015 only 29% (second most common response) hunters preferred the opener to occur the first week. This shift is likely the reality or perception that waterfowl are arriving later compounded by favorable weather conditions persisting longer into the hunting season. Regardless of the mechanism, it is clear hunters are beginning to shift their preference for opening day in the Interior Vermont zone later in the year.

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Appendix A Initial Post Card



Dear Waterfowl Hunter,

You are one of a group of hunters randomly selected to provide information about your waterfowl hunting activities in New York and/or Vermont. This study, jointly conducted by the Vermont Fish and Wildlife Department, New York Department of Environmental Conservation and the State University of New York at Plattsburgh is an effort to learn about waterfowl hunting activities in northern New York and Vermont. Results of this study will help waterfowl managers make decisions to improve hunting opportunities and to better manage duck and goose populations.

In about 2 weeks you will receive the questionnaire in the mail. Please complete the survey by December 13th and return it by placing it in the stamped envelope included. **Your participation and responses are completely voluntary. By responding you will help effectively manage waterfowl hunting in northern New York and Vermont.**

If you have questions please contact us.

Jake Straub Assistant Professor
jstra009@plattsburgh.edu 518.564.4112

Curt Gervich Associate Professor
cgerv001@plattsburgh.edu 518.564.4030

Appendix B Waterfowl Hunting Survey
**2015 Waterfowl
Hunting Survey**



Plattsburgh
STATE UNIVERSITY OF NEW YORK



Center for Earth and Environmental Science
State University of New York Plattsburgh
Plattsburgh, NY 12901

ABOUT THIS QUESTIONNAIRE

You are one of a group of hunters randomly selected to provide information about your waterfowl hunting activities in New York and/or Vermont. This study, jointly conducted by the Vermont Fish and Wildlife Department, New York Department of Environmental Conservation and the State University of New York at Plattsburgh is an effort to learn about waterfowl hunting activities in northern New York and Vermont. Your responses will help waterfowl managers make decisions to improve hunting opportunities and to better manage duck and goose populations.

DIRECTIONS FOR FILLING OUT THIS QUESTIONNAIRE

- We need to hear from EVERYONE who receives this questionnaire. If you do not hunt waterfowl, simply check no to questions 1 and 2, go to the last page to complete the background information section, and return your questionnaire.
- All answers will be treated confidentially. Your name will NEVER be associated with the information you provide.
- Please complete this questionnaire by December 13th. Then simply seal it using the materials provided and mail it. Return postage has been provided.
- If you are under 18 please have your parents provide permission for you to participate in this survey by signing here _____

If you have questions please contact us.

Jake Straub
Assistant Professor
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518.564.4112

Curt Gervich
Associate Professor
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**WE THANK YOU FOR YOUR COMMITMENT TO
WATERFOWL MANAGEMENT!**

Section 1. Waterfowl Hunting Effort and Harvest Please provide the following information so that waterfowl biologists may better estimate waterfowl harvests in New York and Vermont.

1. Did you hunt waterfowl (ducks or geese) in New York at any time during the past five hunting seasons (including the 2015 season)?

_____ Yes _____ No

2. Did you hunt waterfowl (ducks or geese) in Vermont at any time during the past five hunting seasons (including the 2015 season)?

_____ Yes _____ No

If you answered no to both these questions please skip to the background information section and complete it.

3. What zone(s) have you hunted waterfowl in during the last 5 years, and on average, how many days did you spend hunting in each zone each year? (*Check all zones that you hunted in*)

_____ Lake Champlain Zone _____ Avg days hunted /year

_____ Northeastern NY Zone _____ Avg days hunted /year

_____ Interior Vermont Zone _____ Avg days hunted /year

_____ Connecticut River Zone _____ Avg days hunted /year

4. Which of the following best describes how often you hunt waterfowl? (*Circle one*)

Every year

Most years

Occasional Years

Rarely

5. Do you hunt *primarily* for (*check one*):

- Ducks
- Geese
- Ducks & Geese equally

6. When do you do most of your waterfowl hunting? (*check one*)

- Mostly on Weekdays
- Mostly on Weekends
- Equally Between Weekdays and Weekends

7. Do you find waterfowl bag limit regulations difficult to understand? (*check one*)

- Yes
- No

8. In an average hunting season how many days do you devote to the waterfowl listed below? (*Put check marks in the space that is applicable.*)

	0 Days	1 Day	2-4 Days	5-10 Days	>10 Days
Dabbling Ducks					
Diving Ducks					
Mergansers					
Canada Geese					
Snow Geese					
Brant					

Section 2. Season Structure and Preference Please provide the following information regarding season structure so that managers can better align seasons with hunter's preferences.

1. When do you prefer the following **duck** hunting seasons to open? (*Check one for each zone*)

Lake Champlain Zone

- October (1-7)
- October (8-14)
- October (15-21)
- After 21st of October
- No preference

Interior Vermont Zone

- October (1-7)
- October (8-14)
- October (15-21)
- After 21st of October
- No preference

Northeastern New York Zone

- October (1-7)
- October (8-14)
- October (15-21)
- After 21st of October
- No preference

Connecticut River Zone

- October (1-7)
- October (8-14)
- October (15-21)
- After 21st of October
- No preference

2. When do you prefer the following **goose** hunting seasons to open? (*Check one for each zone*)

Lake Champlain Zone

- October (1-7)
- October (8-14)
- October (15-21)
- After 21st of October
- No preference

Interior Vermont Zone

- October (1-7)
- October (8-14)
- October (15-21)
- After 21st of October
- No preference

Northeastern New York Zone

- October (1-7)
- October (8-14)
- October (15-21)
- After 21st of October
- No preference

Connecticut River Zone

- October (1-7)
- October (8-14)
- October (15-21)
- After 21st of October
- No preference

3. Which month would you prefer to have the most waterfowl hunting days open? (*Check one month for each zone*)

Lake Champlain Zone

- October
- November
- December
- No Preference

Northeastern New York Zone

- October
- November
- December
- No Preference

Interior Vermont Zone

- October
- November
- December
- No Preference

Connecticut River Zone

- October
- November
- December
- No Preference

4. Do you prefer a straight or split **duck** season? (Straight season opens and runs with no interruption up to 60 days. Split season opens, closes for some time, then opens again, totaling 60 days). (*Check one for each zone*)

Lake Champlain Zone

- Straight
- Split
- No Preference

Northeastern New York Zone

- Straight
- Split
- No Preference

Interior Vermont Zone

- Straight
- Split
- No Preference

Connecticut River Zone

- Straight
- Split
- No Preference

5. Do you prefer a straight or split **goose** season? (Straight season opens and runs with no interruption up to 50 days. Split season opens, closes for some time, then opens again, totaling 50 days). (*Check one for each zone*)

Lake Champlain Zone

- Straight
 Split
 No Preference

Northeastern New York Zone

- Straight
 Split
 No Preference

Interior Vermont Zone

- Straight
 Split
 No Preference

Connecticut River Zone

- Straight
 Split
 No Preference

6. If the duck season is split, what is your preference for the length of the closure? (*check one*)
- Less than 1 week
 1 week
 2 weeks
 More than 2 weeks

7. For Northeastern NY Zone Hunters only: How important is it that the opening day of goose season is **not** on the same opening day as deer season. (*Circle One*)

Not Important

Important

Very Important

8. For Lake Champlain Zone Hunters Only: How much of a conflict is it when bass tournaments are held during duck season on Lake Champlain. (*Circle One*)

Not a Conflict

**Somewhat of a
Conflict**

**So much of a
conflict I won't
hunt**

Information on *resident* and *migratory* Canada geese

New York and Vermont have two distinct populations of Canada geese: *resident* and *migratory*. Migratory Canada geese breed in Canada and typically arrive in NY and VT in early October. This migratory population of Canada geese has remained stable (no large increase or decrease) over the last 15 years. **Resident Canada geese breed throughout these 2 states and populations of this group have increased dramatically prompting wildlife managers to initiate an ‘early’ resident Canada goose season in September. Because of populations of resident Canada geese is large and increasing, daily bag limits are more liberal compared to those later in the season.**

9. For Lake Champlain and Interior Vermont Zone Hunters only:

Would you prefer *Resident* Canada goose season start September 1st or after the Labor Day weekend? (*Check One*)

- September 1st
 After Labor Day

10. What day of the week do you prefer *migratory* **goose** season to open? (*Check One*)

- Wednesday
 Saturday
 No preference

11. What day of the week do you prefer **duck** season to open? (*Check One*)

- Wednesday
 Saturday
 No preference

12. Where do you learn about any changes to the waterfowl hunting regulations? (**check all that apply**)

- | | |
|--|---|
| <input type="checkbox"/> Waterfowl syllabus | <input type="checkbox"/> Social Media |
| <input type="checkbox"/> Newspaper | <input type="checkbox"/> Friends/Hunting Partners |
| <input type="checkbox"/> Fish and Wildlife Agency Websites | <input type="checkbox"/> Other (please list): |

Section 3. Hunting Accessibility and Satisfaction Please provide the following information regarding hunting accessibility and preferences.

1. Which type of land do you hunt most often for waterfowl?
(check one)
 - Private land owned by me
 - Private land owned by someone who gave permission
 - Private land under lease
 - Public State land/water
 - Public Federal land / water

2. If you hunt waterfowl on **public** lands, how would you best describe, on average, the amount of other people hunting waterfowl on the same lands? *(check one)*
 - Not enough hunters around me
 - Some hunters around but not enough to make my experience worse
 - Enough hunters around that my experience starts to decline
 - So many hunters that my experience is barely worth making the trip
 - So many hunters that I will leave or not come back.

3. Were you satisfied with the Zone boundary change between the Lake Champlain Zone and Interior Vermont Zone in 2011?
(check one)
 - Yes
 - No
 - No opinion

4. Were you satisfied with the Zone boundary change between New York's Northeastern Zone and Southeastern Zone in 2011? *(check one)*
 - Yes
 - No
 - No opinion

5. If you do not get to waterfowl hunt as much as you would like, what is/are the reasons? (*Select as many that are applicable*)

- No enough free time (family/work commitments, etc.)
- Weather
- Financial cost
- Conflicts with other hunting seasons
- Access to private lands
- Access to public lands
- Regulations too complex
- Not enough waterfowl
- Other – Explain:

6. In your opinion, what would most improve your overall waterfowl hunting experience? **Please rank the options below from most important (1) to least important (6) for improving your hunting experience.**

- Different Boundary Zone lines
- Different start and close dates
- Greater accessibility to hunting lands
- More youth hunting opportunities
- No Split season
- Reduced bag limit complexity

7. How satisfied have you been with your waterfowl hunting experience in the past 5 years? (*Circle One*)

No Opinion	Not Satisfied	Somewhat Satisfied	Satisfied	Very Satisfied
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Section 4. Background information The following questions allow us to understand more about the people involved in waterfowl hunting in New York and Vermont. All responses are kept confidential.

1. How many years total have you hunted waterfowl? _____
2. How many years total have you hunter waterfowl in NY? _____
3. How many years total have you hunter waterfowl in VT? _____
4. Please give your age _____ years
5. What is your gender?
_____ Male
_____ Female
6. What State do you reside? _____
7. For statistical purposes only, please indicate which of the following categories apply to your **total** household income for the last 12 months. (*Please check only one*)
_____ Less than \$24,999
_____ \$25,000-\$49,999
_____ \$50,000-\$74,999
_____ \$75,000-\$99,999
_____ \$100,000 or more
_____ prefer not to answer
8. For statistical purposes only, what is the highest level of education you have completed? (*Please check only one*)
_____ Some High School
_____ High School Diploma
_____ Associate's Degree (2 Years) or some College
_____ Bachelor's Degree (4Years)
_____ Master's Degree
_____ PhD or Doctoral Degree
_____ prefer not to answer

End of questionnaire. Thank you for your time and commitment to the waterfowl resource. Please feel free to offer any comments you believe would be helpful.

If you wish to receive a copy of the survey results please **PRINT** your e-mail address below.

Email: _____

**THANK YOU FOR YOUR TIME AND
ASSISTANCE**

To return this questionnaire, seal it using the materials provided and drop it in the nearest mailbox. Postage has been provided.

Appendix C Follow-up postcard



Dear Waterfowl Hunter,

Recently you were mailed a questionnaire about your waterfowl hunting activities in New York and/or Vermont. **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.

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Appendix D Hunter Comments

In my opinion I feel that the early goose season limits are too liberal & think a 5 bird limit across the board is respectful... the birds that migrate through northern NY in early October are local geese at another area just north normally. I also purchase & possess a Canadian hunting license that has seasons that open a week prior to ours & and continues on til' the 2nd week in January with their goose season remaining open the whole time w/ more liberal bag limits through their regular season! Which doesn't make sense seeing how we hunt the same birds! Thanks for doing this research!

Vermont has an issue attracting snow geese to Addison and those that come are very difficult to decoy in as they know where the refuge boundaries are and are always well out of range when they leave them. Also, the duck migration seems to occur later each year. With the understanding that hunter safety is important would it be possible to extend the duck season on the Lake Champlain flyway later into December if as in the case of this winter (12/2015) the weather remains warm. As the seasons are set per August this could be done on a season by season basis which the extension of the season broadcast thru media and state websites.

One of the problems with VT lake zone is the fact that people have decided to turn bays such as Converse Bay in Charlotte VT into their private mooring sailing clubs. Thus sail boats are moored

back in the bay and we cannot set up without placing them in shot lines. I think these should be a limit to how close to shore people can drop a mooring anchor and leave their boats.

We hunt waterfowl - in New York Northeastern zone - opening week - due to travel and expense - not being able to hunt geese this week or two is not fair to hunters. The September Canada goose season should be changed to the last weeks of September & the first weeks of waterfowl season. Thank you.

Current seasons are too early for ducks. If split season continues lengthen split or have one day dark (no hunt) so we can get into late December.

More ducks and geese come thru Vermont!

Wetland and wildlife conservation seems to be one of the only things government actually does right because of the enlistment of scientists and professionals. NOT politicians. Thank you for continued research and commitment to our best natural resource.

This survey was sent to my brother, Ian Deyo, who has not hunted waterfowl with any regularity. I filled it out in an effort to provide you with additional data. -Seth Deyo

Trouble duck hunting this year- worst ever!

Expanded goose hunting opportunities at Dead Creek. Offer reciprocal VT/NY hunting license/stamp.

I feel like 2 splits would benefit those who live and hunt on the St. Lawrence River to allow hunting until late Dec./early Jan (North of RT. 37 only). 1) Split in Oct. 2) Split in early Nov. - allow hunters opportunity to harvest geese in 1st part of duck season. Restrict access to upper and lower lakes management area instead of open all 60 days model after Wilson Hill i.e. close it during the week to allow birds to rest

The Northeastern zone, if not all of NY, should have a "late" Canada goose season. This season should coincide with the late snow goose season when the migration returns. This would serve two purposes: 1) Reduce the numbers of resident geese, helping to control their numbers. 2) Provide additional opportunities for hunters. During the late snow goose season, I observe large amounts of Canada geese returning only to wrestle for space as their numbers have grown with the majority of their offspring now vying for space.

I believe the bag limit should be lowered to 4 ducks of any species. And second season the limit for geese should be 5 instead of 3.

I hunt exclusively in NY. Not familiar with the situation in Vermont.

I feel in my experience duck hunting - the colder it gets the more ducks in the area. My suggestion is making a second split during rifle season for two weeks and those two weeks to the end of the season. The most amount of ducks in the state are from December 10/11 until January 20/21.

A longer split is needed in the Lake Champlain Zone. Late season hunting has been fair to poor in recent years due to global warming and lack of ice and snow. Winter conditions are needed to move diving ducks down from Canada. The season needs to remain open until Jan. 1, at least. I often see large numbers of ducks on the lake in late December, after the season closes and into January.

I see a large lack of geese in this flyway. Farmers in this area have gone to cutting crops and plowing their fields immediately leaving no food source. I do not see the number of geese on the Addison Reserve that I used to. I believe the flyway has moved west over NY.

This survey does not seem to fit my hunting opportunities (hunt in Southeastern Zone)
I found this year that starting the Vermont season on a weekend was detrimental to mid/late season. Too many people were able to come out and scare off ducks. More regulation and presence needs to be added to waterfowl hunting hotspots. Goose season should have no split but start later (mid/late September).

Over the last few years the overall weather has been too warm until December 1st - season ends too soon. All the good hunting starts around Thanksgiving and I would like it to end a week later in 2016 to try it out (Lake Champlain Zone). I say December 24 for 2016. We need to give this a try. I also think because there is no good way to estimate the goldeneye population that for the next 3 years we should reduce the daily limit to 4. There does not seem to be the numbers there were 3-5 years ago. Is there an overharvest? I am not unhappy that the mallard limit is 4. There are more mallards than goldeneyes.

Seems like the birds are leaving before season. Some places get shot up on youth weekend not by youth hunters!!!

Early goose season in September should be longer. Close and open late fall. They make quite a mess all around.

Ducks and goose need to go until the end of December like it used to go. Why do we only get 60 days and Canada gets 9-15 - 12-13.

I believe that split season should be done away with, open it and leave it open, if we can take 15 geese early season why can't limit be at least 5 during regular.

I get New York and Vermont licenses primarily to support conservation efforts, like yours. Health now prohibits me from most forms of hunting. Thank you!

The 2015 season was an anomaly due to seasonally high temperatures that prevented normal migration. However, it was an extreme example of a trend that has been existing for the past 5 years. October waterfowl hunts are typically in 50-60 degree temperatures. I would prefer to see the season in Northern NY extended or delayed into more December to capture migration on open bodies of water such as the St. Lawrence River.

Don't believe we need a split season. Open up shooting cormorants. Can't see shooting swans. Don't close goose season (the split), season is confusing when duck is open, goose should be too... Just like other hunting season, open from day one until closing date.

The Western season in NY should extend into the St. Lawrence River Valley region for late season duck hunting.

Put Plan 2014 in effect

I feel that the duck season in the Northeast Zone in New York should be the same as the Southern Zone of New York. This year was a washout of a season because of weather and every year when our season is closed here is when all the birds are here. I would much rather wait two

more weeks to duck hunt and get the extra time at the end of December then have it at the beginning of October when it is 60 degrees outside. The guys I hunt with all travel to the Western New York zone to hunt at end of December when the season is closed to home and if we had that extra season here we wouldn't have to travel to hunt the same duck we could hunt here. It's just like if next year's season is as warm and no waterfowl migrating down from Canada because of the weather New York state should do something about extending the season for another 30 days. We as hunters pay a lot of money to hunt and when you can't even use your hunting license to the fullest. It's frustrating and I am sure there are many more people from NY that feel this way and NY should step up and help the hunters who are probably the biggest money spenders in the state when there are seasons like this past season.

There are far too many duck hunters anywhere you go on Lake Champlain. There are far too many guides hunting every day of the open season killing our ducks and geese for profit. There are far too many TV shows promoting duck hunting for profit. Get rid of half the hunters and we'll have good duck hunting again.

We could use places where We could sight our gun in -Nice to have an email sent to the hunters (email the hunters a few days before it opens) telling them when and what season is; a don't forget email and hunting tips - I have to keep checking to see what dates are open sometimes I see a duck and think it may not be in season so I don't kill it; same with geese - private land, somehow

have a list of them we could ask them to responsibly hunt and have the state give the land owner tax breaks or something

Where we hunt in Southern Champlain backwaters- the ratio of wood ducks to mallards is 10-15 to one. A little less on the green-winged teal. You fill your limit on wood ducks and sit there watching them sail over your head. When I was a young man the wood ducks were quite endangered - since then they have done very well. Perhaps a 5-6 bird limit is in order.

The last 20 years most of the places I used to hunt is now posted and they will not give me permission to hunt.

Steel shot makes it hard to kill ducks. Cost of duck stamp and no lead shells are getting expensive. I would hunt ducks in December if it did not close.

NY goose season ends just as geese are plentiful and geese season doesn't open again until deer season starts, making my waterfowl hunting season less than ideal. Thank you.

Yes, I would like Canadian Goose hunting at least go to the end of duck season. After all, that's why you have the September season. 2) Like reason for both geese and ducks go till the end of December still good hunting on Champlain

Duck and goose season should be open at the same time. This way one would have a better opportunity to get different species. Goose season opens too late in this area.

With this fall being warmer than normal there were fewer ducks and geese. Today December 17 there still are geese in the area. They normally are gone in late November. If the warm weather trend continues in the future, season dates are going to have to be later.

Please get the snow geese back. Drastic decline in Vermont, all snow is landing in New York state. Need to draw them back.

When farms are purchased by Poultry Farms of Chazy, NY, the land to hunt on is no longer available to hunt. I have lost at least 8 farms to hunt on. When they have around 8,000 acres of cow it is like a huge refuge system in Clinton County. Snow goose hunting is very hard to find land available. The guides are more numerous and pay a good price to leave the land. I received the questionnaire on December 21.

Years ago goose hunting opened the first week of October. Now it open the third week of October in the Northeast region. Goose hunting is the best between September 15 to October 3. Our season is closed for the majority of this time. Many hunters in my area feel this is done only so the politicians and people in Chesapeake Bay area have geese that are not decoyed or shot at to hunt. When I was a kid everybody hunted geese. Now there is only a handful of people that hunt

geese. I feel the season should start around October 15 and remain open until December 1. Thank you.

For this survey there were some items that were left off. A big item for us is the lack of birds on the major flyway (Hudson River). We hunt the southeastern and northeastern zone on the Hudson River. In the past 4 years duck and goose numbers have been down exponentially from 2007 and forward. This is about the time the dredging started in our section of the river. This is probably the number one factor to why our hunting experience has become terrible. Season can change but this is a moot point if the birds are not in the region. Before the 2010 we were averaging 80+ ducks a year. Now we are lucky if we get 15+ a year. As for this survey of hunter enjoyment, food for thought we go out on opening day of duck season to the same location every year, in the past we had to show up at 4-5 in the morning for a spot because there were so many hunters on the Hudson. Now we could show up 5 minutes prior and be okay. No birds has definitely led to less hunters in our location. We have altered our hunting location due to this, finding more success off the river on Cassayuna, Carters, and Battenkill. My father and I do work over at carter's pond banding black ducks and wood ducks. As for hunting spots off of the Hudson there has been no change and have been pretty solid.

For deer hunting you need to drastically reduce the days of hunting, way over hunted

Open a season on invasive exotic species like cormorants they are useless and create all kinds of problems. Killing island habitat, increase nitrogen loading in the ecosystem, and damage to fish populations.

We have hunted the same area in Bridgeport (Stoney Cove) for all our 40 years. There used to be 5 of us, now down to 3. The past 3 years have not been very productive (average 7 ducks for 6 days). There are not as many waterfowl flying over us as in past years, we notice many more on the New York side. The Dead Creek Waterfowl Management Area has seen fewer and fewer ducks and geese in the last 3 years (at least in our opinion). I do not know what has changed, but something definitely has. It seems to me that our bag limits are too low when compared to others south of us. We let birds fly by and they get shot in southern states. Youth Day (deer season too) if we are teaching our youths about hunting then they should have to experience the same season and regulations that we do. Let them hunt opening day with their parents and have to put up with frightened waterfowl within the first 15 minutes. Hard to get a bird to come in after being shot at for an hour or so.

I mostly hunt waterfowl in the Long Island Zone, which the survey did not apply to

The bag limit for Canada geese should be more than three for the regular season

I find the biggest obstacles to getting out and hunting were geese and ducks to be time and nearly land. Being a young professional and having many ties out of state makes it difficult to find time to hunt. Having a place to go nearby (I currently drive 40 minutes to a spot on Champlain or even longer to the Connecticut River) would greatly improve odds of getting out. Also, finding non-posted land is difficult. I would also like to thank the survey's coordinators and Vermont Fish and Wildlife and New York DEC for their time and effort in improving waterfowl hunting. And properly managing game and non-game populations. Thanks!

Ducks never come down in 2015 prior to end of season in Washington County, New York.

The New York State and Federal Waterfowl Hunting regulations, and hunting regulations in general, are outrageously skewed in favor of the farmer. If, as I do, one lives in a farming community, if you are not a farmer, or friends with a farmer and have permission to hunt their cornfields/spread manure- you are at a distinct disadvantage. Things for which I would be arrested and have my guns/licenses confiscated, be inaccredited for, or pay a hefty fine- my next door neighbor with a "farm" (4 cows and a barn), can do with impunity- hunt over bait (spread manure, corn fields, etc.) put up electric fences (which only get turned on during deer season) etc. Successful hunters around here have access to farmland. The rest of us (like me), can only sit on our vacant pond and panic and hope for the occasional passing shot as the waterfowl pile into the neighboring manure spread fields. It is not a fair playing field- one set of rules for farmers and another for the rest of us. I don't want to be a farmer- but I'd like an equal chance.

Won't buy duck stamps again too expensive got to be a rich persons game.

The Missisquoi Refuge needs to be returned to the Lake Champlain Zone; we need a split season. We need a 5 day opening season and then a non-hunting 'nesting' period of 12 days. This is important to avoid total burnout. This would mimic nesting periods provided on state and federal lands, such as Mud Creek, Charcoal Creek, and Long Man's where hunting is only allowed 2-3 days per week.

I am an avid small game and deer hunter. I hunt all season long in Vermont, from September to March. I do not, however, hunt waterfowl. Thank you for all your effort to provide viable hunting opportunities. –Jerry

I believe hunting a split season takes away hunting time when waterfowl are still around. Later in the season if the lake freezes the ducks leave. So the season may still be open but there are no waterfowl. They have left the Northern areas especially. Also I believe you could increase the totals ducks taken to 7, but this can only be 1 extra drake mallard. currently it is 4 mallards. In Vermont 2 drakes 2 hen total of 6 duck mallards are abundant so it would not hurt population. I did not receive this until December 29.

Season for ducks should extend into early January for Lake Zone Vermont. Barely had a season this year. Same Interior. Nature can decide if it freezes or not on the smaller bodies of water. Additional items that would improve hunting: improved management and care of some of the federally controlled areas; improved management of state controlled Mud Creek area in Vermont. Biggest issue in the last 5 years has been lack of ducks. Changes in weather and farming practices in Vermont and primarily Canada seem to be making a big impact on our number of birds or our ability to hold birds.

There seems to be a definite lack of the numbers of geese and especially ducks in the areas I hunt over the last 6-7 years. Trespassing on private and posted lands seems to be increasing with hunting regulations not being observed, and lack of following bag limits. This is affecting not only waterfowl, but all game species. We need stricter and more stronger fines for the offender. Poaching has gotten very frequent since I started hunting 40+ years ago.

Most of my waterfowl hunting interest is in and around Lake Champlain as I live in Addison County. I also travel to Virginia to hunt waterfowl. A couple thoughts: I enjoy early Vermont duck season (weather and abundant ducks), but observe, in my opinion, overhunting/shooting and see frustration when ducks are forced to leave and competitions between hunters is highest for hunting area. Lake Champlain Zone best when divers/ late season paddle ducks migrate in - need cold weather/temperature, which often don't come until waterfowl season closes. Strongly urge resource managers consider pushing back the season in LC Zone to December 31st.

Comparing waterfowl hunting opportunities in VT to other states (Virginia, Maryland, etc.) on east coast- I really appreciate the ample opportunities to access/hunt abundant habitats in and around Lake Champlain and not to the exclusion of the average hunter (caused in some states by blind laws and private land leases). Thanks for allowing me to participate in this survey.

The change in agricultural practice in Vermont has ruined Interior duck and goose season. Also the increase in duck stamp cost has made it not worth going (\$15 to \$25)

Be able to use good shot Interior Vermont steel shot that has too many lost ducks.

Season in Northern Zone should have a two week shutdown between the September and October seasons. One month shutdown too long. Often the last ten days of the season freezes roost waters and birds head south. Beginning September season on September 1 is not beneficial. 25 days is too long for the September season. Often crops are not cut yet and you're pressuring the same birds which makes hunting them difficult, which defeats the purpose of reducing the local population.

I think your waterfowl stamps are a little bit too expensive..

Need to have waterfowl season go later in the year in Vermont. More waterfowl after two weeks into season ends when the weather finally cools down. Get rid of the early season or the first part of the "split" and tack it on to the end of December.

How will we have access to the results of this survey, they should be accessible. Could there be a link on the federal syllabus?

Everybody had a disappointing end to the season this year (2015) due to the warm weather. I fear an overreaction to this "trend" and I anticipate a lot of hunters pushing to go later into December. I am not opposed to this, but some years the winter comes in on time and makes hunting difficult. The season dates have been ironed out through years of trial and error and should be considered to be "on average" assessment. A lot of these hunters that will make a case to go later need to be aware of how dangerous Lake Champlain can be. Another point I would like to make is seeing unplugged guns and electric calling during Vermont resident goose season. If we can determine that the population is still on the rise, and the population is too much, let's act now before we have as much as an issue as Southern New York. Through unplugged guns and electric calling, the 8 bird per day per hunter would be much more obtainable. I'm so happy to see and participate in surveys about waterfowl hunting and conducted locally. I applaud your effort of reaching out. When we see this anticipated "knee jerk" response to hunting later into December, we need to be prepared with historical data of weather temperatures. A change in season dates could very well be

in our future due to weather patterns, but I don't think we need to panic and make a decision based on one or two years. Thanks again for all you do.

Snow goose season should be extended to after mid-April. At the northernmost portions of the state, and on cold years, the snow geese are still migrating but the season has closed. Also, snow geese prefer farm land and there is not enough public land of this type. In addition, the number of decoys required to attract snow geese is cost-prohibitive. Here are some ideas to increase the number of snow goose hunters. 1) Increase public lands, or offer farmers a cash payment voucher for every hunter they allow to hunt on their land. Many western states do this with deer hunting. 2) On state lands, provide a state-owned decoy spread which can be reserved on a first come, first serve basis for a daily fee. Essentially "renting" the decoys. 3) Permit the taking of snow geese using a .22 LR over land only and forbid wing shooting. There are risks with this, so it would have to be implemented with safety in mind. 4) Extend snow goose season in Northernmost zones until May 1.

This would be better online. Love the split hunt for snow geese. Maybe consider that on Canada's to reduce local populations.

I believe the resident goose season should open on the same day as regular goose season, while also having liberal limits for the first two weeks. Many resident geese could be harvested.

1) Oneida Lake specifically needs to be moved back to the Southeastern Zone. 2) Opening 1st week of October is useless. You are hunting a lake still actively being fished for bass, perch, and walleye. 3) Only local mallards on lake 1st week of October and once shot at they stay in marinas. 4) Lake freezing later, swamps freeze later. Flight duck mallard and diver and geese come in at least two weeks later. 5) I hunted 25 times and my blind with two-three people, took a total of 5 ducks this year. No geese. But today there are ducks and geese all over the lake. Season ended the 13th of December. Thinking of not bothering with blind at all next year. 6) Keep nuisance geese open until end of September.

Move the season later into the year in the Northeastern New York Zone. We should end the first split and have it start up after Christmas and go into early January. There were very few ducks around this year and many of the past years have been similar.

To raise the number of resident geese that are harvested by hunters, give the hunters more time to do so. I rarely see other goose hunters out, duck hunters, yes. (D2.W.M.V.VT) (P/Q W.M.V. VT) Usually it is my group vs. hundreds of geese that jump from spot to spot. One flock E2 we take a band or two every year out of the same flock. Thanks, and keep up the good work.

Goose Season: Split season- 1st the bag limit is 5 geese to reduce resident geese. Most reside in non-hunting areas like parks, golf courses, etc... that few are harvested. 2nd season bag limit reduced to 3 birds. At this season is still mostly resident birds that are now coming to cut corn

fields. Reduction of resident geese is best at this season. 3rd season is mostly migratory geese and is fine. Note in increase of bag limit of 2nd split to 5 would work better to reduce residents.

I would most like to see a consistent Wednesday opener for Lake Champlain. I feel this gives hunters an "extra" opening day. It must also impact positively, motels, restaurants, businesses, etc. As waterfowl hunters "flock" to Lake Champlain to benefit from the Wednesday opener. This survey could have been done by email and saved a few trees and postage costs. Thank you for your concern enough to collect this data from waterfowl hunters. Sometimes I feel we are a forgotten group of hunters.

I mainly hunt Southeastern zone for ducks. The October season catches the woodies and teal, but the late season always closes before mallards show up in good numbers. Early goose should start about 3 weeks later. I like to hunt cut corn fields and most seasons I only hunt last 3 or 4 days after the corn is cut.

I think goose season should be earlier so we can hunt when the migrating Canada Geese are in the area! Also electronic callers would be great during regular season.

Return by 12/13? Received it around Christmas. Statistical sample size will be smaller if hunters don't bother because it's already late. Why split snow geese season in Lake Champlain Zone?

Those of us who hunt mostly in corn fields depend on the harvest season and hunting season dates.

I had to get a HIP number for hunting woodcock, which are secondary to grouse - what I was hunting for.

There is an overabundance of wildlife in our WMA due to proper harvesting and conservation.

Duck members are down-to many geese, bag limit should be kept at 5 the entire open season- more wildlife sanctuaries and pressures are needed in and around hunting areas where some waterfowl can make their migration without stress-hunting times should change from 1/2 hour before sunset to sunrise to sunset

This was not received 21 DEC due to mailing hold up

Sorry it was late I moved and it was late getting to me

Would prefer that the NE NY zone hunting season extended longer into December rather than starting the first Saturday of October. Maybe start the second or third Saturday of October and freeing up more time in December. After all the duck hunting is supposed to be in cold weather pursuit. Rather hunt in ice than mosquitoes.

to help with resident Canada geese population, would a spring season be beneficial?

THIS HAS NOTHING TO DO WITH HUNTING DO NOT SEND AGAIN

The biggest improvements for waterfowl is better access to regulations in print with mail then those of us that apply for hip# or put them in more locations and get them printed earlier in the season.

I love to hunt waterfowl with my dad and my older brothers it is a family event same as fishing and deer hunting. I would love to continue waterfowl hunting for years to come.