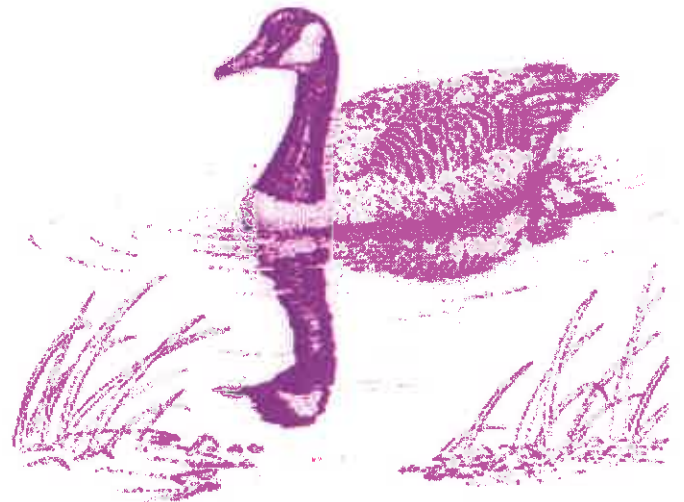


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**2003 Waterfowl Hunting Effort and Harvest
in the Lake Champlain and Adjacent Zones
in Vermont and New York**



October 2004

HDRU Series No. 04-8

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**2003 WATERFOWL HUNTING EFFORT AND HARVEST
IN THE LAKE CHAMPLAIN AND ADJACENT ZONES
IN VERMONT AND NEW YORK**

By

Tommy L. Brown and Jody W. Enck

HDRU Series Publ. 04-8

October 2004

EXECUTIVE SUMMARY

Introduction and Methods

Waterfowl management at the state level occurs within specified management zones. For each zone, state waterfowl managers establish season starting and ending dates and bag limits, within guidelines established by the U.S. Fish and Wildlife Service. The New York State Department of Environmental Conservation (NYSDEC) and Vermont Department of Fish and Wildlife (VTDFW) have a long-standing agreement to jointly decide on annual regulations for the Lake Champlain Zone that straddles the New York – Vermont border. To make informed decisions that will allow the greatest utilization of the resource within ecological limits and provide high levels of hunter satisfaction, a mail survey was conducted of 1,000 waterfowl hunters each in New York and Vermont to obtain information for the Lake Champlain, Northeastern New York, and Interior Vermont zones.

Sample names and addresses were obtained from persons who had registered with the federal harvest information program (HIP) as migratory bird hunters in 2003. We implemented the survey on 16 April 2004 using a 4-wave procedure. We asked hunters a series of general questions about their waterfowl hunting activities in 2003, total number of years they had hunted waterfowl, whether they hunted primarily for ducks, geese, or both, whether they had hunted for diving ducks, and also for harvest information. We then asked a series of questions about preferences for season opening dates and possible split seasons. We assessed participation in the September 27-28, 2003 Youth Hunting weekend. Finally, we asked for information about the use of motorized decoys and we assessed support for noon closures for goose hunting during October.

Results

The useable response rate for the survey was 54.3% for Vermont, and 63.4% for New York waterfowl hunters. Given this response, the maximum expected margin of error at the 95% confidence level for any question with dichotomous responses was $\pm 2.1\%$ for questions pertaining to the Lake Champlain Zone, $\pm 2.2\%$ for questions pertaining only to the Northeastern New York Zone, and $\pm 2.5\%$ for questions pertaining only to the Interior Vermont Zone.

The vast majority of respondents from both states were male (Vermont 95.5%, New York 97.1%), with Vermont hunters ($\bar{x} = 40.1$ years) averaging slightly younger than New York hunters ($\bar{x} = 43.5$ years). Slightly fewer Vermont respondents (81.5%) than New York respondents (91.0%) indicated they were waterfowl hunters. Of Vermont waterfowl hunters, 88.1% hunted waterfowl in 2003, while 92.5% of New York waterfowl hunters hunted waterfowl in 2003.

In both states, about one-third of respondents hunted primarily for ducks (Vermont 36.8%, New York 36.9%). A relatively small percentage of Vermont hunters (7.4%) and New York hunters (12.5%) hunt primarily for geese. One-half or more of respondents from each state hunted both ducks and geese (Vermont 55.9%, New York 50.7%). A greater percentage of

Vermont hunters (42.5%) than New York hunters (27.8%) hunted for diving ducks (scaup, goldeneye, bufflehead, etc.).

Of Vermont hunters, 78.9% hunted in the Interior Vermont zone, and 73.3% hunted in the Lake Champlain zone. Of New York hunters, 88.5% hunted in the Northeastern New York zone, and 55.8% hunted in the Lake Champlain zone. Few Vermont hunters hunted in the Northeastern New York zone, and similarly, few New York hunters hunted in the Interior Vermont zone.

Most Vermont hunters (83.3%) harvested ≥ 1 duck somewhere in Vermont and/or New York, and 57.1% harvested ≥ 1 goose. Vermont hunters harvested an average of 13.6 ducks (range = 0-161) and 5.3 geese (range = 0-90) in 2003. Similarly, 79.5% of New York's 2003 waterfowl hunters harvested ≥ 1 duck somewhere in Vermont and/or New York in 2003, and 55.9% harvested ≥ 1 goose. New Yorkers harvested an average of 10.7 ducks (range = 0-100) and 5.8 geese (range = 0-250).

Of the responding waterfowl hunters, 17.5% from Vermont and 11.7% from New York participated in the September 27-28 Youth Hunting Weekend. Vermont respondents who guided youths reported that the total duck harvest by these youths averaged 2.8 ducks (range = 0-16; 67.2% reported 0 ducks harvested by youths). New York respondents who guided youths reported an average of 2.4 ducks (range = 0-24; 62.1% reported 0 ducks harvested by youths). Despite the overall lack of participation in the Youth Hunting Weekend, a high percentage of Vermont (89.3%) and New York hunters (93.0%) support having a special Youth Hunting Weekend.

A plurality of Vermont hunters prefer opening day in the Lake Champlain Zone to be during the second week in October, whereas about one-half of New York hunters prefer an opening date during the first week in October. For the Interior Vermont Zone, most Vermont hunters (55%) preferred an early opening date. Regardless of when opening day occurs, about three-quarters of Vermont hunters prefer the same opening date for the Lake Champlain and Interior Vermont Zones. New York hunters were more split about whether opening day for the Lake Champlain and Northeastern New York zones should be the same or different, although a slight majority preferred the same opening date.

We found mixed opinions from both Vermont and New York hunters with respect to whether the Lake Champlain Zone should have a straight season or a split season. If the season were split, a slight majority of hunters from both states preferred a one-week closure (as opposed to a two week closure) between splits. For the Interior Vermont Zone, a large majority of hunters preferred a straight season. If the season were split for the Interior Vermont Zone, most hunters preferred only a one week closure between splits.

Among Lake Champlain Zone hunters from Vermont, 47% hunted diving ducks. Among New Yorkers who hunt Lake Champlain, 38% hunted diving ducks. In both states, respondents who hunt diving ducks preferred later opening dates for Lake Champlain, compared to those who did not hunt diving ducks. Also, in both states, a majority of respondents who do not hunt diving

ducks prefer a straight season for Lake Champlain, and a majority of those who hunt diving ducks prefer a split season.

Regarding a weekday versus weekend opening, a majority of Vermont hunters (64.8%) preferred a Wednesday opener, while most New York hunters (55.8%) preferred a Saturday opening date..

Only a minority of hunters from either state used motorized (spinning wing) decoys (34.1% Vermont; 16.4% New York). However, most hunters (69.7% for Vermont; 75.3% for New York) did not support a ban on use of these controversial hunting tools.

Finally, with regard to half-day hunting (noon closure) for geese during the month of October, a majority of Vermont hunters (58.9%) supported half-day goose hunting, although only 43.5% of goose specialists supported early closure. New York hunters were split with respect to those who supported half-day hunting (49.0%) and those who did not (51.0%). Only 32.2% of goose hunting specialists in New York supported the early closure.

Discussion and Conclusions

All respondents were not waterfowl hunters, although the samples from both states were drawn from persons who had registered with the federal HIP data base. This discrepancy could result from confusion by hunters when they filled out their license application form, or from people who thought they would hunt waterfowl but did not.

About one-half of hunters in both states were generalists who hunted both ducks and geese. Among those who specialized in only ducks or geese, about four times as many respondents from both states hunt primarily for ducks (~37%) as hunt primarily for geese (7-12%).

Despite limited participation in the Youth Hunting Weekend, we found strong support among hunters in both states for continuation of that opportunity for youths. Continent-wide, waterfowl managers have been concerned about decreasing participation in waterfowl hunting and most states have adopted new opportunities for youths in an effort to recruit new hunters. However, it seems unlikely that the Youth Hunting Weekend had significant influence on recruitment in the Lake Champlain area because of the low percentage of participating hunters.

We also have no information about the degree to which use of motorized decoys affected harvest. In both states, users of these decoys averaged higher harvests for both ducks and geese, compared to non-users. However, avid hunters who are likely to harvest the most waterfowl also are more likely than casual hunters to try new technology.

Respondents from the two states had different preferences for the waterfowl hunting season. A slight majority of New York hunters preferred opening date in the Lake Champlain Zone to be the first week in October, but a plurality of Vermont hunters preferred the second week in October. A slight majority of Vermont hunters preferred a split season in that zone, with about one-half of New York hunters preferring a straight season. A majority of Vermont hunter

preferred a Wednesday opener in general, but a majority of New York hunters preferred Saturday. Finally, a majority of Vermont hunters supported half-day goose hunting during October, but about one-half of New York hunters did not. These differences in preferences may be largely because of tradition. New York has traditionally opened waterfowl seasons on Saturday, while Vermont has often opened its seasons on Wednesday.

In determining seasons, where there are not clear-cut preferences across all hunters, the challenge is for managers to balance the needs of the majority of hunters with those who specialize in certain types of waterfowl hunting. For example, the needs of puddle duck hunters, which may comprise a majority of waterfowl hunters, must be balanced against the needs of diving duck hunters, who need a later season.

The data seem more clear-cut with respect to three kinds of regulations. First, Vermont hunters clearly preferred that the Interior Vermont Zone open on the same date as the Lake Champlain Zone, that the Interior zone open the first week in October, and that it be a straight season. Second, hunters in both states clearly supported the continuation of special hunting opportunities for youths. However, we caution managers to have realistic expectations about levels of participation by current waterfowl hunters as guides and mentors, and about the limited influence of such opportunities on recruitment of new hunters. Third, despite relatively low use of motorized decoys by hunters in either state, hunters do not support a ban on such decoys.

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INTRODUCTION

Waterfowl management at the state level occurs within specified management zones (U.S. Fish and Wildlife Service 1988). For each zone, state waterfowl managers establish season starting and ending dates and bag limits, within guidelines established by the U.S. Fish and Wildlife Service. Various data are needed annually to help establish these zone-specific regulations, including effort and harvest data from hunters. Although the U.S. Fish and Wildlife Service collects data annually at the state level through the federal Harvest Information Program (see USFWS website, <http://hip.fws.gov/>), those data do not provide information on hunter preference on a zone by zone basis within a state.

The New York State Department of Environmental Conservation (NYSDEC) and Vermont Department of Fish and Wildlife (VTDFW) have a long-standing agreement to jointly decide on annual regulations for the Lake Champlain Zone that straddles the New York – Vermont border. To make informed decisions that will allow the greatest utilization of the resource within ecological limits and provide high levels of hunter satisfaction, information is needed about hunter preferences about regulations and opinions about potential, new opportunities. The purpose of this project was to obtain this information for the Lake Champlain and adjacent zones in VT and NY.

METHODS

Survey Implementation

We assessed hunters' effort, harvest, and regulatory preferences through a mail survey of a random sample of 1,000 hunters from both VT and NY. Sample names and addresses were obtained from persons who had registered with the federal harvest information program (HIP) as migratory bird hunters in 2003. We implemented the survey on 16 April 2004 using Salant and Dillman's (1994) revised 4-wave procedure. We did not attempt to contact mail survey non-respondents by telephone to assess non-response bias.

Effort and Harvest Data

We asked hunters a series of general questions about their waterfowl hunting activities in 2003. After screening respondents to ensure they were waterfowl hunters we assessed whether they had hunted waterfowl in 2003, total number of years they had hunted waterfowl, whether they hunted primarily for ducks, geese, or both, and whether they had hunted for diving ducks. Finally, we asked how many ducks and how many geese they had harvested.

Regulatory Preference Data

We asked a series of questions about hunters' preferences for regulations in the Lake Champlain Zone and the adjacent Interior Vermont Zone, and Northeastern New York Zone (Appendix A). First, we asked if they had hunted in that particular zone. For the Lake Champlain and Interior Vermont Zones, we asked which week of October they preferred for the

opening date, whether they preferred a straight or split season, and preference for length of closure if the season was split. For the Northeastern New York Zone, we asked how many days they hunted in that zone and other zones.

We assessed participation in, and attitude toward, the September 27-28 Youth Hunting Weekend with a series of three questions. We asked how many youths they had guided that weekend (i.e., 0, 1, 2, >2), and how many ducks the youths had harvested that weekend. Finally, we asked whether they supported having a special youth hunting weekend.

We also assessed some state-specific preferences. We asked Vermont hunters whether they preferred duck season to open on a Wednesday or a Saturday, and whether they preferred the Interior Vermont Zone and Lake Champlain Zone to open on the same day or different days. We asked New York hunters whether they preferred duck season to open on a Wednesday or a Saturday, and whether they would prefer the Lake Champlain and Northeastern New York zones to open on the same day or on different days.

Finally, we asked hunters whether they used a motorized (spinning wing) decoy, whether they believed motorized decoys should be banned, and whether they would support half-day hunting (noon closures) for geese during October.

RESULTS

Response Rates and Characteristics of Respondents by State

The Vermont sample had 41 undeliverable questionnaires due to bad addresses, 3 unusable returned questionnaires, and 521 useable responses for a response rate of 54.3%. The New York sample had 54 undeliverable questionnaires due to bad addresses, 1 unusable returned questionnaire, and 600 useable responses for a response rate of 63.4%.

Given these response rates, the maximum expected margin of error at the 95% confidence level for any question with dichotomous responses was $\pm 2.1\%$ for questions pertaining to the Lake Champlain Zone, $\pm 2.2\%$ for questions pertaining only to the Northeastern New York Zone, and $\pm 2.5\%$ for questions pertaining only to the Interior Vermont Zone. For example, if 100 different samples of the same size were taken from the population of hunters in Vermont, 95 times out of 100 the results obtained would vary no more than ± 2.5 percentage points from the results that would be obtained if the entire population of Vermont hunters answered the question.

The vast majority of respondents from both states were male (Vermont 95.5%, New York 97.1%). Vermont hunters ($\bar{x} = 40.1$ years; range = 10-66) were slightly younger on average than New York hunters ($\bar{x} = 43.5$ years; range = 10-82). Slightly fewer Vermont respondents (81.5%) indicated they were waterfowl hunters, compared to New York respondents (91.0%). Of Vermont waterfowl hunters, 88.1% hunted waterfowl in 2003. Among New York waterfowl hunters, 92.5% hunted waterfowl in 2003.

In both states, at least 50% of respondents hunted both ducks and geese (Vermont 55.9%, New York 50.7%). About one-third hunted primarily for ducks (Vermont 36.8%, New York 36.9%). A relatively small percentage of Vermont hunters (7.4%) and New York hunters (12.5%) hunted primarily for geese. A greater percentage of Vermont hunters (42.5%) than New York hunters (27.8%) hunted for diving ducks (scaup, goldeneye, bufflehead, etc.).

Effort and Harvest Data by State

Participation by Zone:

In 2003, a higher percentage of hunters from the Vermont sample than from the New York sample hunted in the Lake Champlain Zone (Table 1). Not surprisingly, a high percentage of hunters from each state hunted in the adjacent waterfowl management zone in their home state. A small minority of hunters from both states hunted in the other state, in the management zone adjacent to the Lake Champlain Zone.

Table 1. Numbers and percentages of Vermont and New York waterfowl hunters who hunted in the bi-state Lake Champlain Zone and adjacent waterfowl management zones in Vermont and New York in 2003, based on mail surveys of hunters.

<u>Management Zone</u>	<u>Vermont hunters</u>		<u>New York hunters</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Hunted in Lake Champlain Zone	299	73.3	289	55.8
Hunted in Interior Vermont Zone	321	78.9	11	2.3
Hunted in Northeastern NY Zone	36	8.9	471	88.5
Days hunted NE NY Zone	\bar{x} = 6.0, range 1-20		\bar{x} = 7.9, range 1-60	
Days hunted other NY Zones	\bar{x} = 2.2, range 0-45		\bar{x} = 5.5, range 0-40	

Total Waterfowl Harvest:

Most Vermont respondents (83.3%) who hunted waterfowl in 2003 harvested ≥ 1 duck somewhere in Vermont and/or New York, and 57.1% harvested ≥ 1 goose. Vermont hunters harvested an average of 13.6 ducks (range = 0-161) and 5.3 geese (range = 0-90) in 2003. Similarly, 79.5% of New York respondents who hunted waterfowl in 2003 harvested ≥ 1 duck somewhere in Vermont and/or New York in 2003, and 55.9% harvested ≥ 1 goose. New Yorkers harvested an average of 10.7 ducks (range = 0-100) and 5.8 geese (range = 0-250).

Participation and Harvest During Youth Hunting Weekend:

Of the responding waterfowl hunters, 17.5% from Vermont and 11.7% from New York participated in the September 27-28 Youth Hunting Weekend (Table 2). Vermont respondents who guided youths reported that the total duck harvest by these youths averaged 2.8 ducks (range = 0-16; 67.2% reported 0 ducks harvested by youths). New York respondents who guided youths reported an average of 2.4 ducks (range = 0-24; 62.1% reported 0 ducks harvested by youths). Despite the overall lack of participation in the Youth Hunting Weekend, a high percentage of Vermont (89.3%) and New York hunters (93.0%) support having a special Youth Hunting Weekend. In Vermont, nearly all participants (98.5%) supported it, and among supporters, 20% participated. In New York, 95% of participants supported having a Youth hunt, while only 13% of supporters participated in it.

Table 2. Numbers and percentages of Vermont and New York waterfowl hunters who guided youths during the September 27-28 Youth Hunting Weekend in 2003, based on mail surveys of hunters.

<u>Level of participation</u>	<u>Vermont hunters</u>		<u>New York hunters</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Participated	64	17.5	56	11.7
Guided 1 youth	43	11.3	44	9.2
Guided 2 youths	23	6.0	10	2.1
Guided >2 youths	1	0.3	2	0.4

Regulatory Preferences by State

Zone-specific Preferences:

A plurality of Vermont hunters prefer opening day in the Lake Champlain Zone to be during the second week in October whereas about one-half of New York hunters prefer an opening date during the first week in October (Table 3). For the Interior Vermont Zone, a majority of Vermont hunters (55%) preferred an early opening date. Regardless of when opening date occurs, about three-quarters of Vermont hunters prefer the same opening date for the Lake Champlain and Interior Vermont Zones (Table 4). New York hunters were more split about whether opening date for the Lake Champlain and Northeastern New York zones should be the same or different, although a slight majority preferred the same opening date.

Table 3. Preferences of Vermont and New York waterfowl hunters for opening dates in the Lake Champlain and Interior Vermont waterfowl management zones, based on mail surveys of hunters.

<u>Preferences for opening dates</u>	<u>Vermont hunters</u>		<u>New York hunters</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Lake Champlain Zone				
1 st week in October	116	39.1	147	51.0
2 nd week in October	139	46.8	101	35.1
3 rd week in October	42	14.1	40	13.9
Interior Vermont Zone				
1 st week in October	183	55.3	5	33.3
2 nd week in October	118	35.6	8	53.4
3 rd week in October	30	9.1	2	13.3

Table 4. Preferences of Vermont and New York waterfowl hunters for whether the opening date in the Lake Champlain Zone should be the same or different from the opening date in Interior Vermont and Northeastern New York Zones, based on mail surveys of hunters.

<u>Zones being compared</u>	<u>Vermont hunters</u>		<u>New York hunters</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Lake Champlain and Interior Vermont				
same opening date	301	72.5	46	70.8
different opening date	114	27.5	19	29.2
Lake Champlain and Northeastern NY				
same opening date	53	73.6	298	58.8
different opening date	19	26.4	209	41.2

We found mixed opinions from both Vermont and New York hunters with respect to whether the Lake Champlain Zone should have a straight season or a split season (Table 5). If the season were split, a slight majority of hunters from both states preferred a one week closure (as opposed to a two week closure) between splits. For the Interior Vermont Zone, a large majority of

hunters preferred a straight season. If the season were split for the Interior Vermont Zone, most hunters preferred only a one week closure between splits.

Table 5. Preferences of Vermont and New York waterfowl hunters for whether the waterfowl hunting season for Lake Champlain and Interior Vermont Zones should be a straight season or a split season, based on mail surveys of hunters.

<u>Waterfowl management zone</u>	<u>Vermont hunters</u>		<u>New York hunters</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Lake Champlain Zone				
prefer straight season	139	46.8	148	51.2
prefer split season	158	53.2	141	48.8
if split, preferred length of closure				
1 week	158	55.8	147	53.6
2 weeks	125	44.2	127	46.4
Interior Vermont Zone				
prefer straight season	264	79.5	10	71.4
prefer split season	68	20.5	4	28.6
if split, preferred length of closure				
1 week	208	70.7	9	69.2
2 weeks	86	29.3	4	30.8

Among Lake Champlain Zone hunters from Vermont, 47% hunted diving ducks. Among New Yorkers who hunted Lake Champlain, 38% hunted diving ducks. In both states, respondents who hunted diving ducks preferred later opening dates for Lake Champlain, compared to those who did not hunt diving ducks. Also in both states, a majority of respondents who did not hunt diving ducks preferred a straight season for Lake Champlain, and a majority of those who hunted diving ducks preferred a split season.

General Opinions and Preferences:

In terms of general opinions about opening day being on a weekday or a weekend, we found different preferences between Vermont and New York hunters. A majority of Vermont hunters (64.8%) preferred a Wednesday opener, while most New York hunters (55.8%) preferred for the season to open on Saturday.

Only a minority of hunters from either state used motorized (spinning wing) decoys (34.1% Vermont; 16.4% New York). However, most hunters did not support a ban on use of these controversial hunting tools (69.7% Vermont; 75.3% New York). In Vermont, 43% of non-users supported a ban, compared to only 7% of those who used motorized decoys. In New York, 30% of non-users supported a ban, and only 1 person who used motorized decoys supported a ban on them.

Among Vermont hunters, 39% of generalists, 33% of those who hunted primarily ducks, and 13% of those who hunted primarily geese used motorized decoys. Among New York hunters, 20% of generalists, 14% of duck hunters, and 5% of goose hunters used the decoys. Hunters who used the decoys were more successful, on average, compared to those who did not use them. In Vermont, users harvested an average of 20.2 ducks and 7.9 geese, compared to 8.7 ducks and 3.6 geese for non-users. Similarly, in New York, users harvested an average of 20.1 ducks and 8.5 geese, compared to 7.7 ducks and 4.7 geese for non-users.

Finally, we found differences among the two states with respect to support for half-day hunting (noon closure) for geese during the month of October. A majority of Vermont hunters (58.9%) supported half-day goose hunting, although only 43.5% of goose specialists supported early closure. New York hunters were split with respect to those who supported half-day hunting (49.0%) and those who did not (51.0%). Only 32.2% of goose hunting specialists in New York supported the early closure.

DISCUSSION AND CONCLUSIONS

All respondents were not waterfowl hunters, although the samples from both states were drawn from persons who had registered with the federal HIP data base. This discrepancy could result from confusion by hunters when they filled out their license application form, or from people who thought they would hunt waterfowl but did not.

About one-half of hunters in both states were generalists who hunted both ducks and geese. Among those who specialized in only ducks or geese, about four times as many respondents from both states hunted primarily for ducks (~37%) as hunted primarily for geese (7-12%). This propensity for duck hunting among specialists is similar to that found for New York hunters statewide by Enck et al. (1990). The consistency of this pattern over ~15 years suggests that hunters' primary focus on ducks likely reflects differences in habitats used by the two types of waterfowl (and their general availability to hunters), equipment needs, and hunting techniques between duck and goose hunting, rather than any changes in duck versus goose hunting opportunities over the last decade. For example, hunters consistently had 30-day duck seasons from 1988 to 1993, with a slow expansion to the current 60-day season. Conversely, the season for migrant Canada geese was closed abruptly from 1995 to 1998, with a slow expansion to the current 45-day season.

Despite limited participation in the Youth Hunting Weekend, we found strong support among hunters in both states for continuation of that opportunity for youths. Continent-wide, waterfowl managers have been concerned about decreasing participation in waterfowl hunting

(Case 2004), and most states have adopted new opportunities for youths in an effort to recruit new hunters. However, it seems unlikely that the Youth Hunting Weekend had significant influence on recruitment in the Lake Champlain area because of the low percentage of participating hunters. We have no information about whether these youths were new to waterfowl hunting, were family members of the respondents, or were invited to participate in other hunting trips in 2003.

We also have no information about the degree to which use of motorized decoys affected harvest. In both states, users of these decoys averaged higher harvests for both ducks and geese, compared to non-users. However, avid hunters who are likely to harvest the most waterfowl also are more likely than casual hunters to try new technology (Miller 2002). It is quite likely that those hunters would have recorded higher harvests regardless of whether they used motorized decoys.

Respondents from the two states had different preferences for timing of the opening date in the Lake Champlain Zone, whether that zone should have a straight or a split season, whether opening day (in general) should be Wednesday or Saturday, and whether they supported half-day hunting for geese during October. A slight majority of New York hunters preferred opening date in the Lake Champlain Zone to be the first week in October, but a plurality of Vermont hunters preferred the second week in October. A slight majority of Vermont hunters preferred a split season in that zone, with about one-half of New York hunters preferring a straight season. A majority of Vermont hunter preferred a Wednesday opener in general, but a majority of New York hunters preferred Saturday. Finally, a majority of Vermont hunters supported half-day goose hunting during October, but about one-half of New York hunters did not. These differences in preferences may be largely because of tradition. New York has traditionally opened waterfowl seasons on Saturday, while Vermont has often opened its seasons on Wednesday.

Our findings suggest that waterfowl managers in the two states may have some difficult decisions, especially with respect to the Lake Champlain zone, where there are split preferences as to whether that zone has a straight or a split season, and even whether the closure between splits is one or two weeks. At a broader level, the challenge is for managers to balance the needs of the majority of hunters with those who specialize in certain types of waterfowl hunting. For example, the needs of puddle duck hunters, which may comprise a majority of waterfowl hunters, must be balanced against the needs of diving duck hunters, who need a later season.

The data seem more clear-cut with respect to three kinds of regulations. First, Vermont hunters clearly preferred that the Interior Vermont Zone open on the same date as the Lake Champlain Zone, that the Interior zone open the first week in October, and that it be a straight season. Second, hunters in both states clearly supported the continuation of special hunting opportunities for youths. However, we caution managers to have realistic expectations about levels of participation by current waterfowl hunters as guides and mentors, and about the limited influence of such opportunities on recruitment of new hunters. Third, despite relatively low use of motorized decoys by hunters in either state, hunters do not support a ban on such decoys.

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Appendix A. 2003 Waterfowl Hunting Survey

1. Are you a waterfowl hunter?

No ⇒ Please stop here and return questionnaire.

Yes ⇒ Please continue.

2. Did you hunt waterfowl in 2003?

Yes

No

3. How many years have you hunted waterfowl?

Years

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

Ducks

Geese

Both

5. Do you hunt for diving ducks (scaup, goldeneye, bufflehead, etc.)?

Yes

No

6. In your hunting in Vermont and/or New York in 2003,

a. How many ducks did you harvest?

b. How many geese did you harvest?

The following questions allow you to evaluate the waterfowl seasons used in 2003 by management zone.

Lake Champlain Zone

7. Do you hunt in the *Lake Champlain Zone*?

Yes ⇒ If yes, please continue to question 8.

No ⇒ Please go to Question 11 - Interior Vermont Zone.

8. When do you prefer the opening date for the *Lake Champlain Zone* duck season to be?

1st week of October (1-7)

2nd week of October (8-14)

3rd week of October (15-21)

9. Do you prefer a straight or split duck season for the *Lake Champlain Zone*?

Straight

Split

10. If the *Lake Champlain Zone* duck season is a split season, what is your preference for the length of the closure period?

1 week

2 weeks

II. Interior Vermont Zone

11. Do you hunt in the *Interior Vermont Zone*?

Yes ⇒ If yes, please continue to question 12.

No ⇒ Please go to Question 15 - Northeastern New York Zone.

12. When do you prefer the opening date for the *Interior Vermont Zone* duck season to be?

1st week of October (1-7)

2nd week of October (8-14)

3rd week of October (15-21)

13. Do you prefer a straight or split duck season for the *Interior Vermont Zone*?

Straight

Split

14. If the *Interior Vermont Zone* duck season is a split season, what is your preference for the length of the closure period?

1 week

2 weeks

III. Northeastern New York Zone

15. Do you hunt waterfowl in the *Northeastern New York Zone*?

Yes

No

16. How many days did you hunt *in NY*:
- a. in the *Northeastern Zone*? ____ Days
 - b. in Other Zones? ____ Days

IV. Youth Day

17. How many youths did you guide during the September 27-28 Youth Hunting Weekend?
(Youth hunters - please go to Question 20 - General Opinions About the Seasons)
- ____ 1 youth
 - ____ 2 youths
 - ____ More than 2 youths
 - ____ Did not participate (please go to Question 19.)
18. How many ducks did they harvest?
- ____ Ducks
19. Do you support having a special youth hunting weekend?
- ____ Yes
 - ____ No

V. General Opinions About the Seasons

20. What day do you prefer duck season to open on?
- ____ Wednesday
 - ____ Saturday
21. For Vermont Hunters: Do you prefer the *Interior Vermont Zone* and the *Lake Champlain Zone* to open on the same day or on different days?
- ____ Same
 - ____ Different
22. For New York Hunters: Do you prefer the *Lake Champlain Zone* and the *Northeastern New York Zone* to open on the same day or on different days?
- ____ Same
 - ____ Different
23. Do you use a motorized (spinning wing) decoy?
- ____ Yes
 - ____ No

