NEW YORK STATE | Department of Environmental Conservation

LAKE CHAMPLAIN ICE FISHING CREEL SURVEY
2021 PROGRESS REPORT
February 25, 2022

Kathy Hochul, Governor | Basil Seggos, Commissioner

Lake Champlain Ice Fishing Creel Survey, 2021 Progress Report

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Introduction

The information on ice fishing angler use characteristics for the New York side of Lake Champlain is outdated. The last ice fishing survey conducted by New York was in 1999, in coordination with Vermont Fish and Wildlife (NYSDEC 2000). This survey predates significant changes to species composition, fisheries management practices and environmental disturbances in the lake, including the introduction of aquatic invasive species, increased sediment and phosphorus inputs, and climate change. New York does not have the necessary information base to understand angler use and expectations to help guide management actions. Information needed includes preferred target species, catch and harvest rates, and angler opinions about the ice fishery. To obtain this information an ice fishing season creel survey was developed and conducted, with the goal of using it to help inform the development of a Fisheries Management Plan for the lake.

Methods

Angler interviews were conducted on four selected bays (King's, Willsboro, Bulwagga and South) on the New York shoreline of Lake Champlain from January 1 through March 21, 2021. Angler counts were also conducted at each site on every survey day. Angler effort will be estimated as angler days, using angler counts multiplied by the stratum specific mean trip length. Catch per unit effort will be reported as fish per angler hour. Anglers who had not yet completed their fishing trips were provided catch cards with the same interview questions and were asked to voluntarily submit them as a supplement to the direct contact survey to convert incomplete trips to completed trips wherever possible. For this report, only data collected during the interviews are presented. Catch card data will be incorporated in the assessment after the 2022 survey is completed. Complete survey methods, including the survey interview and catch card forms, can be found in the Lake Champlain Creel Survey Plan (Balk 2020). Analyses for this report focused on identifying angler's preferred target species, estimating catch and harvest rates for each species, rating angler satisfaction with the fishery, and documenting opinions on the lake and fishery.

Results

On 43 days from January 1 through March 21 clerks conducted 224 interviews; 40 were from northern bays and 184 were from southern bays. Seventy-three angler counts were conducted over the same period. Safe ice formed on South Bay first (January 1), then Bulwagga Bay (January 16), followed by King's Bay (January 23), and Willsboro Bay (February 6). Ice out occurred in the reverse order soon after the end of the creel survey. Most of the fishing effort occurred in the southern bays (66%) and on the weekends (70%). Overall, anglers were present fairly evenly throughout the day (60% AM, 40% PM); however, more anglers were fishing in the mornings on Bulwagga Bay (88%). Anglers were only encountered on Willsboro Bay in the mornings, and this was the only bay with more effort on weekdays (54%). Catch cards were given to 85 anglers, with 33 of them returned for a combined average return rate of 39% (Table 1).

Table 1. Catch cards given and returned during the 2021 Lake Champlain ice fishing season for each bay surveyed.

Bay	Catch cards given	Catch cards returned	Return rate (%)
King's Bay	10	3	30
Willsboro Bay	2	2	100
Bulwagga Bay	30	11	37
South Bay	43	17	40

Anglers fished for 3,586 hours on the four bays surveyed. Effort included 1,968 hours on South Bay, 800 hours on Bulwagga Bay, 735 hours on King's Bay, and 82 hours on Willsboro Bay.

Ice on Willsboro Bay was not fishable until February 6, two weeks later than the other bays, and the ice left sooner than the other bays (February 24), leaving fewer survey days. More effort was likely expended on the southern bays due to a longer fishable safe ice period and higher diversity of species. Angler effort was concentrated on weekend days for three of the bays: King's Bay (92%), Bulwagga Bay (73%), South Bay (80%). Willsboro weekend effort was only 41%; however, anglers were only interviewed on Willsboro Bay on 3 days during the month of February.

Campground and DEC boat launches were used by 86% of the anglers surveyed. Informal access points were used by the other 14% of anglers. South Bay boat launch received the most use with 106 anglers accessing the ice from this single point. The two Bulwagga Bay Campground beaches provided access to 78 anglers. King's Bay has no formal access, but 29 anglers used other means of getting on the ice, mostly from the King's Bay Wildlife Management Area. Willsboro Bay boat launch was the sole access point for this bay, providing access to 11 anglers.

Panfish (sunfish, crappie, and perch) were the primary targets of 68% of interviewed anglers (Table 2), with perch being the most targeted species (50%). Perch were the primary target at three of the four bays, the exception being South Bay where anglers targeted a variety of species. One hundred ninety-five anglers targeted perch this season. Crappie were the primary targets of 11% of anglers. Anglers don't often differentiate between yellow and white perch when talking to the creel clerk. We believe anglers are referring to yellow perch when they say "perch", and thus the results are representative of yellow perch. When anglers are targeting crappie, they also don't distinguish between the species when being interviewed and will keep either type. There was only one mention of white crappie by an angler as a secondary target. In this report, "crappie" represents both black crappie and white crappie.

Table 2. Species or species group targeted, listed by rank with percent of anglers targeting them during the 2021 Lake Champlain ice fishing season.

Target species	Rank	Percent
perch	1	50
anything	2	15
northern pike	3	11
crappie	4	11
sunfish	5	7
walleye	6	3
lake trout	7	2
largemouth bass	8	0
pickerel	9	0

On King's Bay, 54% of the anglers (N=83) targeted perch, followed by northern pike (26%). Only 41 of the anglers on King's Bay had secondary targets; of those, 76% were perch and 22% were northern pike. Of the anglers (N=14) interviewed on Willsboro Bay, all targeted perch (100%). Only one angler had a secondary target of lake whitefish. On Bulwagga Bay, anglers (N=124) primarily targeted perch (90%), followed by lake trout (8%). There were no secondary targets. On South Bay, anglers (N=247) were primarily targeting multiple species, including "anything" (28%), crappie (23%), northern pike (21%), and perch (15%). Fewer anglers primarily targeted sunfish (7%) or walleye (5%). Secondary targets were reported by 216 anglers. Secondary targets included crappie (54%), sunfish (24%), and perch (19%).

Interviewed anglers caught 1,929 fish and harvested 52% of them. Mean catch rate for all species was 0.86 fish per angler hour. Mean harvest rate for all species was 0.45 fish per angler hour (Table 3).

Table 3. Total angler effort, catch and harvest for all fish species by bay during the 2021 Lake Champlain ice fishing season.

Bay	Hours fished	No. fish caught	No. fish harvested	Catch rate (fish/hour)	Harvest rate (fish/hour)
Bulwagga	432	869	382	2.01	0.88
King's Bay	397	172	117	0.43	0.29
South Bay	1049	551	324	0.53	0.31
Willsboro Bay	51	71	50	1.39	0.98
Grand Total	1929	1663	873	0.86	0.45

Perch were the most targeted fish in the 2021 ice fishing season, followed by northern pink and crappie. Perch represented 70% of the fish harvested. Yellow perch catch rate was estimated at 3.3 fish/hour, with anglers harvesting at a rate of 1.6 fish/hour (Table 4).

Table 4. Catch rates by target species for the 2021 Lake Champlain ice fishing season.

Target Species	Angler hours	No. fish caught	No. fish kept	Catch Rate (fish/hour)	Harvest Rate (fish/hour)
sunfish	48.9	277	179	5.7	3.7
perch	348.8	1134	550	3.3	1.6
crappie	99.3	170	121	1.7	1.2
anything	72.7	55	14	0.8	0.2
pickerel	9.8	3	0	0.3	0.0
largemouth bass	7.7	2	0	0.3	0.0
lake trout	16.5	3	0	0.2	0.0
northern pike	134.3	17	8	0.1	0.1
walleye	27.4	2	1	0.1	0.0
Total	765.3	1663	873	2.2	1.1

Catch rates for yellow perch differed between the bays surveyed, with the best catch rate at Bulwagga Bay (Table 5).

Table 5. Targeted angler effort and catch and harvest totals for perch by bay during the 2021 Lake Champlain ice fishing season.

Site	Angler hours	Perch caught	Perch harvested	Catch rate (fish/hour)	Harvest rate (fish/hour)
Bulwagga Bay	236	856	380	3.6	1.6
King's Bay	44	138	87	3.1	2.0
South Bay	49	69	33	1.4	0.7
Willsboro Bay	36	71	50	2.0	1.4

Sunfish catch rate was the highest of the targeted species at 5.7 fish/hour. Perch had the next highest catch rate (3.3 fish/hour), followed by crappie (1.7 fish/hour). Largemouth bass were often caught as bycatch (0.3 fish/hour), but all were reported released, indicating that anglers were following the winter catch and release regulations. Most anglers who had caught bass seemed surprised when asked if they had harvested any and would quote the regulation to the clerk. All crappie were caught at South Bay.

Northern pike effort was relatively high at 151 angler hours, but catch rate was very low (0.14 fish/hour) as was harvest rate (0.10). Effort for northern pike was focused on King's Bay and South Bay only. Anglers were not very successful at either bay; King's Bay had some catch (0.14 fish/hour) and South Bay had a catch rate of just 0.07 fish/hour (Table 6).

Table 6. Targeted angler effort and catch and harvest totals for northern pike by site during the 2021 Lake Champlain ice fishing season.

Site	Targeted angler hours	Northern pike caught	Northern pike kept	Catch Rate (fish/hour)	Harvest Rate (fish/hour)
King's Bay	83	12	8	0.14	0.1
South Bay	68	5	0	0.07	0

Of the 170 anglers who responded to the question "*How would you rate your fishing experience today?"*, about 28% of them responded positively (choosing either 4 or 5 on a scale of 1-5) (Figure 1). About 45% of all anglers were dissatisfied with their daily fishing experience – combined ratings of 1 and 2. About one quarter of the anglers surveyed did not answer this question (23%). Responses differed by Bay: anglers on Bulwagga and King's Bay followed this pattern, whereas those on Willsboro Bay were generally dissatisfied (82%) (Note that this is based on only 11 interviews at Willsboro Bay). Fewer anglers on South Bay were dissatisfied (29%).

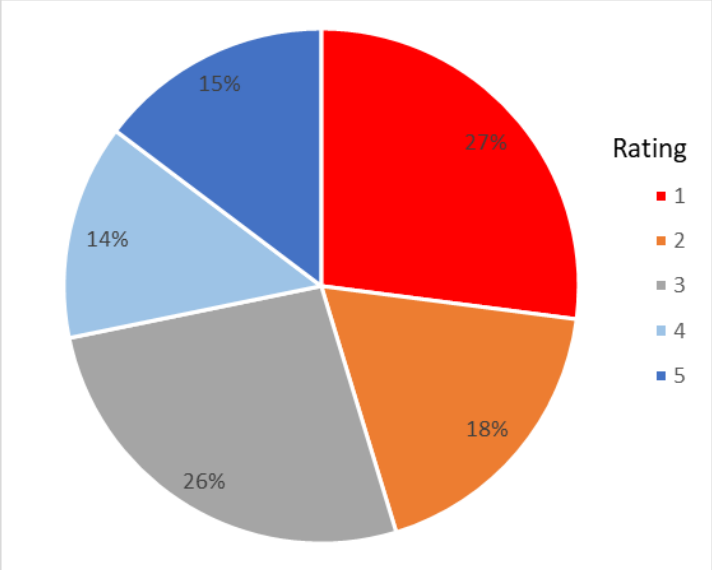


Figure 1. Angler rating of their fishing experience on the day of the interview. (Blue = good, red = bad, grey = neutral)

Of the 131 anglers who responded to the question "*How would you rate your satisfaction with ice fishing on Lake Champlain this year?*", about 40% of them were indicated that they were satisfied and 26% were dissatisfied (Figure 2). The 11 anglers at Willsboro Bay were less satisfied than anglers at the other bays in terms of their fishing experience for the year (63% dissatisfied). About 42% of the anglers surveyed did not answer this question.

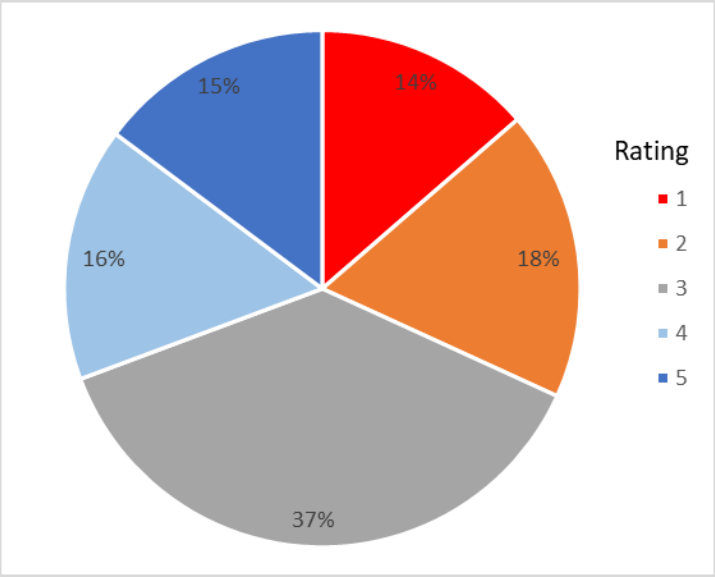


Figure 2. Angler rating their fishing experience this year for all Lake Champlain bays. (Blue = good, red = bad, grey = neutral)

Of the 93 anglers who responded to the question *"How would you rate your satisfaction with ice fishing in Lake Champlain this year for your target species?"* 31% were satisfied and 32% were dissatisfied (Figure 3). Sixty percent of anglers interviewed did not answer this question. The Willsboro Bay anglers were less satisfied than anglers on other bays in terms of satisfaction with catching their target species (75% dissatisfied), but again, this is based on a sample size of 11 anglers.

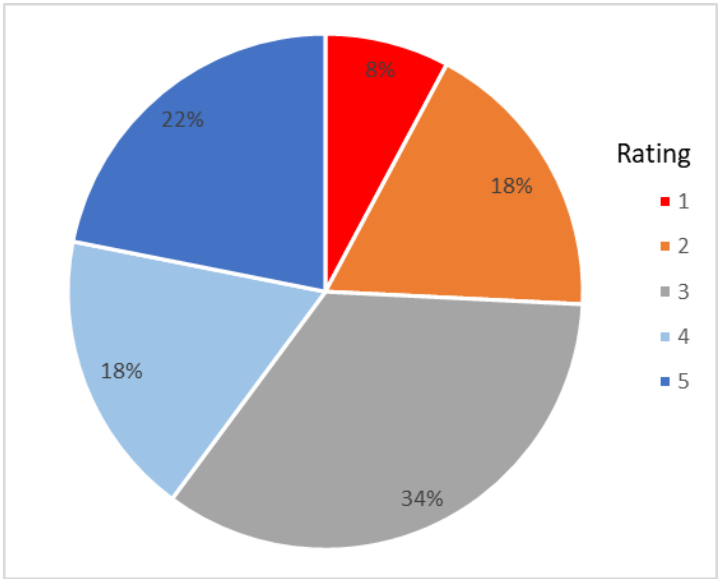


Figure 3. Angler rating of their satisfaction with their ice fishing experience this year for their target species.

Of the 33 anglers who responded to the question "*How would you rate your satisfaction with ice fishing in Lake Champlain this year for your second target species?"* 36% satisfied and 36% dissatisfied (Figure 4). This question was not answered by 85% of the anglers interviewed.

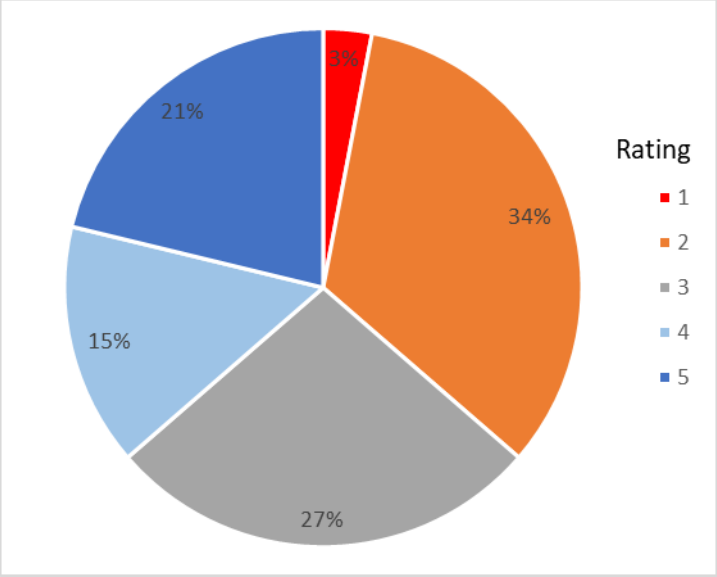


Figure 4. Angler ratings of their ice fishing experience this year for their secondary target species.

There were 164 anglers who responded to the question "*How many days per year do you typically ice fish for Yellow perch in Lake Champlain?"* Of these, 27 anglers (16%) spent 0 days fishing for yellow perch; these were not included in Figure 5. Of the anglers who fish for yellow perch (N=137), about half (53%) of them said they typically fish for 1-10 days in a year. Another 26% of these anglers fish for 11-20 days in a year. The remaining 20% fish for 20 or more days in a year, with the most being 200 days fished by an individual angler.

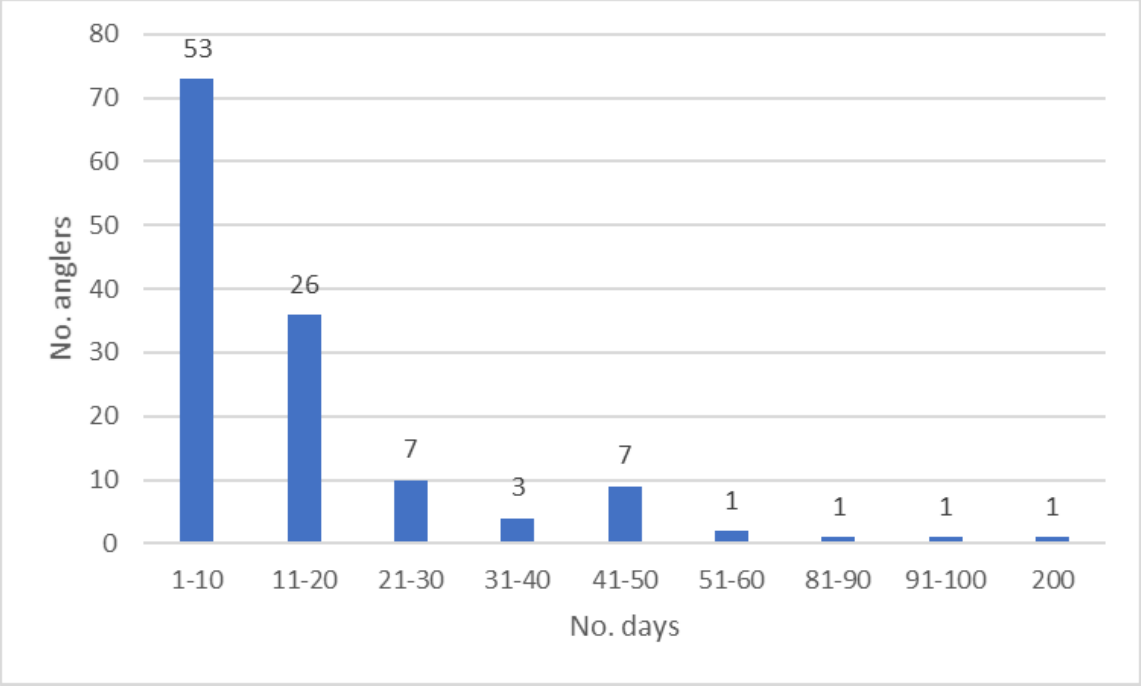


Figure 5. Number of days anglers target yellow perch in Lake Champlain during the 2021 ice fishing season.

Anglers who fished for yellow perch were asked to rate their satisfaction with yellow perch fishing in Lake Champlain this year (N=108). About 22% of them were satisfied and 35% were dissatisfied.

There were 101 “other” comments from 83 angler parties (182 anglers). Most of the comments were negative in nature (73%), typically expressing things anglers want to see improved or changed on the lake.

Some anglers expressed concerns about overharvesting and selling of fish on Lake Champlain [N=7]. Anglers described the yellow perch population as declining [N=4] and some mentioned a reduction in size of yellow perch [N=5]. A couple of anglers commented on the negative effects of bass tournaments on the fishery [N=2]. Three anglers think longnose gar are overpopulated in the lake. One angler believes white perch are overpopulated in the lake. Some anglers wanted stocking, or more stocking, of walleye [N=17], lake trout [N=2], rainbow smelt [N=7] and sauger [N=1]. One angler wanted fewer salmon stocked because they pushed out walleye.

Several anglers expressed concerns over Aquatic Invasive Species (AIS) in Lake Champlain. They complained that water chestnut weed harvesting is destroying young-of-year fish habitat [N=6] or that aquatic vegetation is taking over the lake [N=1]. A few anglers commented that sea lamprey wounding rates were low this year [N=4]. One angler wanted DEC to address spiny water flea in the lake and two anglers wanted DEC to investigate tench in South Bay.

Some anglers said they like the access provided on Lake Champlain; they rated it higher than Vermont’s access and higher than access in other parts of the state [N=8]. Seven anglers requested more access to the lake.

Regulations were commented on during the ice fishing survey. A few anglers want other anglers to release large walleye and larger fish, in general [N=4]. One angler each wants a maximum length limit on walleye of 28 inches, a length limit on crappie of 10 inches, the northern pike minimum length increased to 30 inches and a bag limit for yellow perch. Two anglers wanted to be able to catch their own bait and want clearer NY and VT bait regulations. One angler wanted to reduce the number of tip-ups allowed per person when ice fishing and another thinks the bass season should be open during the winter.

Other comments were about yellow perch and the number of white grubs found in them; some think they have more this year [N=4] and some think they have fewer [N=3]. Several anglers said fishing was better in the past [N=4] and fishing was slow the day they were interviewed [N=3]. Some anglers commented on the amount of garbage left at the access points [N=6]. One angler said double crested cormorants were a nuisance and another wants the docks to be installed sooner. Two anglers were concerned with pollution in the lake.

Twenty positive comments were received about the fishery (from 44 anglers). These anglers said the fishery is great and they are glad to see DEC doing angler interviews. For some, it was their first time on the lake, and they said they will definitely be back. Anglers enjoy the diversity of fish in the lake and the consistency of the fishery. A few anglers commented on how other anglers are respectful on the lake.

Only anglers that responded that they had kept fish (22%) were asked if they would be willing to allow the clerk to measure their catch. Of the anglers asked, 60% of them agreed to let the clerk measure their catch. Those that chose not to have their catch measured typically appeared impatient to get out on the ice or to go home. The clerks measured 108 fish, with a majority being yellow perch (82%). The most common sized perch measured were between 7.5 to 9 inches total length (Table 7). The eight northern pike measured ranged between 18.4 to 36 inches, all over the statewide minimum of 18 inches. The average length of yellow perch measured was 8.4 inches. Compared to the lengths of yellow perch measured in 2015 (Figure 6), this year’s length frequency shows a shift toward the larger size classes (Figure 7).

Table 7. Number of fish measured, listed by species.

Species	Number	Size range (inches)
Yellow perch	89	4.8 - 12.5
Northern pike	8	18.4 - 36
Black crappie	4	10 - 11.5
White crappie	4	9.4 - 11.8
Chain pickerel	1	12
Walleye	1	3

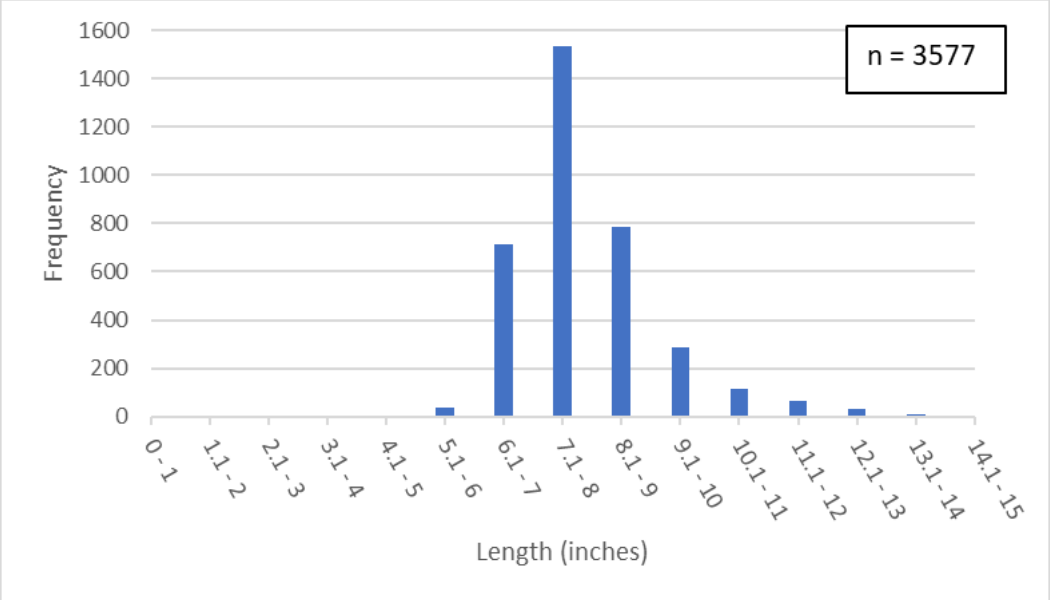


Figure 6. Length frequency of yellow perch harvested from Lake Champlain during the 2015 ice fishing season (Good 2016).

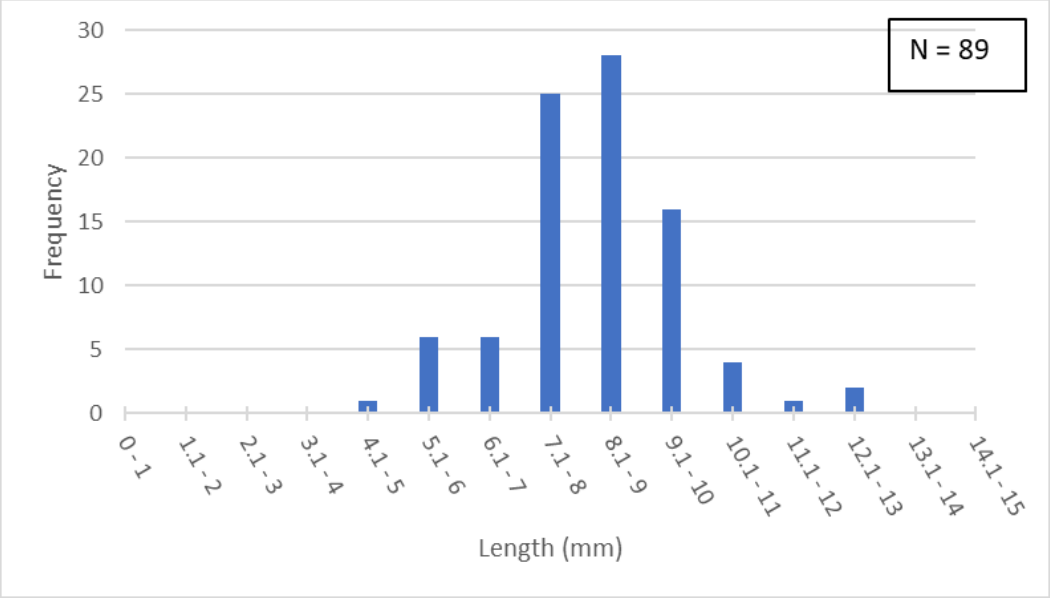
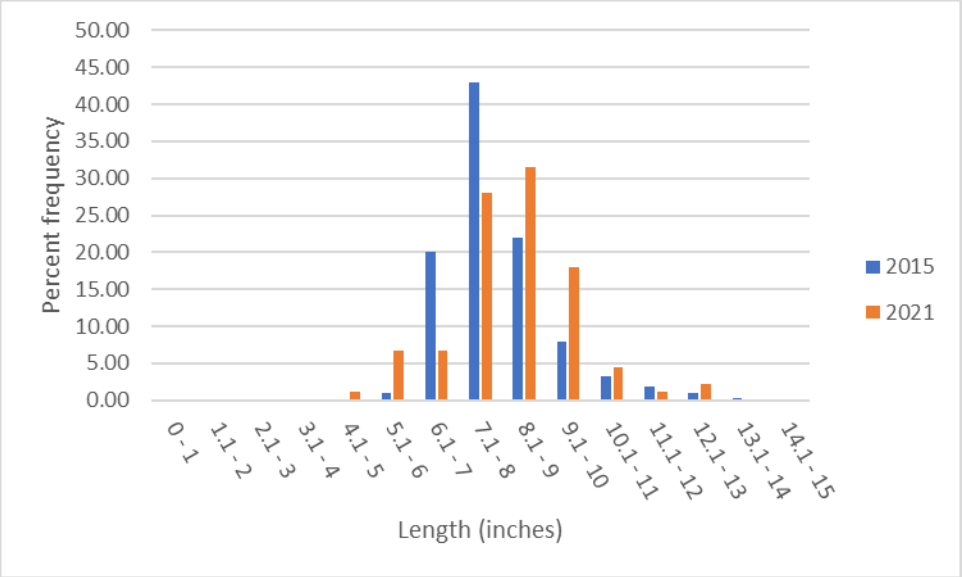


Figure 7. Length frequency of yellow perch harvested from Lake Champlain during the 2021 ice fishing season.

Percent frequency was also plotted to account for the large difference in numbers caught between these years and allow for some comparison (Figure 8). The percentage of yellow perch in each size class appear similar for these survey years. In 2021, the figure suggests that there are actually more perch in the 8-10 inch range than were observed in 2015.



Discussion

We anticipated yellow perch being the primary target species for the Lake Champlain ice fishery and it was targeted by 50% of the anglers interviewed. We found that “anything” and crappie were targeted more often than anticipated. Northern pike were also targeted fairly heavily. It was also anticipated that more fishing effort would occur on South Bay due to the shallow depth of the bay and the expectation that it would freeze soonest and stay frozen longest. The northern bays are deeper and more exposed to the wave action of the open lake, which usually prevents them from freezing as quickly as the more protected South Bay and hastens ice out, effectively shortening the ice fishing season. South Bay was fished on 40% of the surveyed dates; Bulwagga 25%; King’s Bay 29% and Willsboro just 6%.

On Willsboro Bay, ice formed later and the ice left sooner than the other bays, leaving just three survey days. This likely had a negative influence on angler’s satisfaction with their fishing experience. This and the limited number of interviews (N=11) should be kept in mind when viewing their ratings of the fishery. Based on angler testimony, this was not a typical year for Willsboro Bay; safe ice is usually available longer. This bay seems to be primarily a morning fishery based on clerk observations. From observations during scouting in January and the clerk’s daily drives, Rouse’s Point or Deep Bay could serve as an alternative northern survey site, if needed. Scouting surveys should be conducted in January 2022 to choose the 2 northern bays, based on where safe ice forms first, to maximize the number of interviews.

The catch rate for all fish appears to be lower than in the past. The 2021 overall catch rate was 0.86 fish/hour and the harvest rate was 0.45 fish/hour. The 1991 Lake Champlain ice fishing survey – North Lake found catch rate for all species to be 6.1 fish/hour and the harvest rate was 6.0 fish/hour (Chipman 1992). However, the species targeted have changed significantly over the years; therefore, the data do not lend themselves to comparison in terms of overall catch rates.

In 1991, the primary target was rainbow smelt, then lake trout, then yellow perch.
In 2015, the primary target was yellow perch, then anything, then sunfish.
In 2021, the primary target was yellow perch, then northern pike, then crappie.

For yellow perch, the catch rate for all bays was 3.1 fish/hour and harvest rate was 1.5 fish/hour. The highest targeted perch catch rate was 3.6 fish/hour at Bulwagga Bay, with a harvest rate of 1.6 fish/hour. These rates fall short of historically reported catch rates.

> The 2015 Lake Champlain ice fishing survey (North Lake) found yellow perch catch rate to be 16 fish/hour; harvest rate was 11 fish/hour (Pientka 2016).
> The 2015 South Lake survey found a yellow perch catch rate of 12.2 fish/hour; harvest rate of 8 fish/hour (Good 2016).
> The 1999 Lake Champlain ice fishing survey found yellow perch catch rate to be 18 fish/hour; harvest rate was 11 fish/hour (Strait 2000).

Compared to other lakes in the state, our ice fishing catch rates for yellow perch are also low.

> An Irondequoit Bay ice fishing survey from December 2007 to March 2008 found yellow perch catch rate to be 5.4 fish/hour (Sanderson 2009).
> The catch rate from an ice fishing survey on Sodus Bay from December 2008 to March 2009 was 4.4 fish/hour (Sanderson 2010).

Northern pike accounted for 25% of the angler effort with a catch rate of just 0.11 fish/hour. Compared to previous surveys on Lake Champlain, this is a higher catch rate.

> The 2015 South Lake survey found 15% of anglers targeting northern pike with a catch rate of 0.03 fish/hour (Good 2016).

The 2021 northern pike catch rate for Lake Champlain is a little lower than for other lakes in the state, but on par.

> The 2009 Sodus Bay angler survey reported a northern pike catch rate of 0.16 fish/hour (Sanderson 2010). The Irondequoit Bay angler survey showed a northern pike catch rate of 0.22 fish/hour (Sanderson 2009).

The high non-response rate for opinion questions 6 – 9 (Figure 8) was a clear indication that the survey had too many questions; many anglers were not willing to answer the full survey questionnaire.

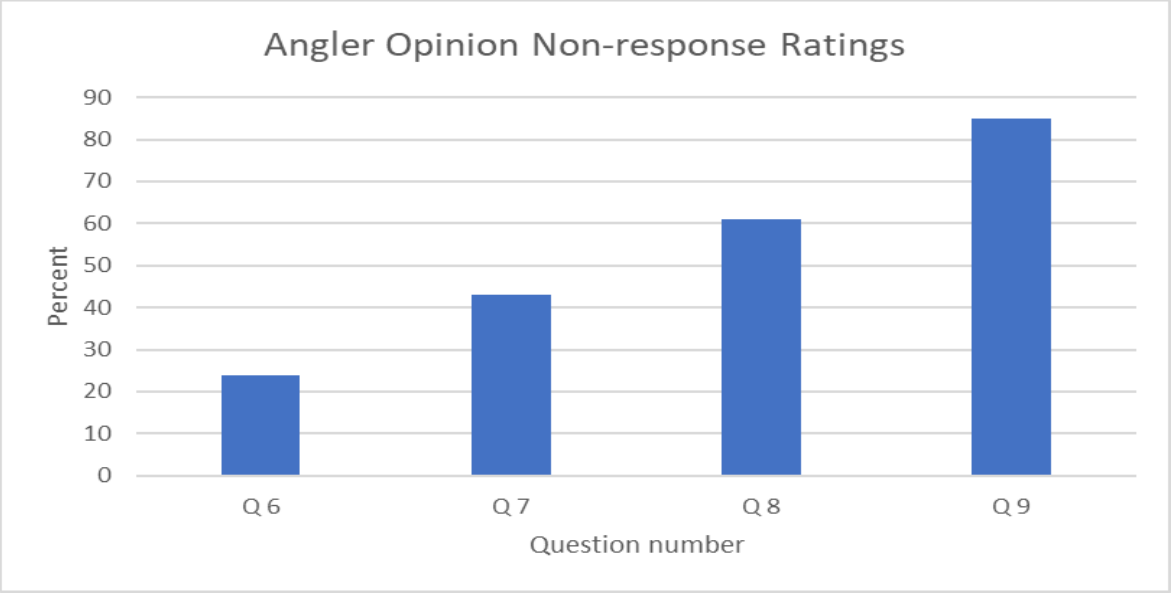


Figure 8. Percent of interviewed anglers that did not answer opinion questions 6-9.

Catch cards could increase the number of interviews used in this assessment by 15%. Complete trip data from catch cards will be included in the 2-year summary.

Cumberland Bay was originally selected as one of the northern bays, but early scouting and angler counts found little angler activity. Cumberland Bay set up with poor ice by the end of January, which may have deterred anglers from using this typically popular bay. Ice on Willsboro Bay was not fishable until February 6, two weeks later than the other bays, and the ice left sooner than the other bays (February 24), leaving fewer survey days. Due to the slow ice formation, creel clerks conducted scouting missions to look for alternative sites on a couple of days in January. Rouse's Point or Deep Bay could be alternate sites for the northern bays. They did not find enough anglers at alternative survey sites in the south to suggest an increase in surveys.

Conclusions and Recommendations for 2022

- Only ask one opinion question in the 2022 survey. *The 2021 and 2022 Ice Fishing Creel Survey Questionnaires are found at the end of this report (Appendices 1 and 2).* Anglers were visibly less interested in answering more than 5 questions in the survey; they wanted to get out on the lake or pack up and leave. We can see from the increasing non-response to the opinion questions #6-11 that most stopped answering questions after #5 (Figure 9). The non-response rate increased from 24% at Question 6 to 86% at Question 9.
- Catch cards were an effective method in this survey and should continue to be given out.
- Remove from the 2021 Questionnaire:

  Q 1. Have you already been interviewed this winter? The season is too short and we found very few repeat interviews.

  Q 4. From where did you access the ice today?

  > King's Bay has no formal access, but there is a decent ice fishery. Most anglers park near King's Bay Wildlife Management Area on the side of one of the roads and walk out onto the ice. There is one location on the shore where anglers drag their sleds onto the ice. Interestingly, only 2 anglers mentioned concerns about access. Region 5 Fisheries will work with Wildlife and/or Operations to discuss improving access for ice fishing at this location.

  Q 7. On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your satisfaction with ice fishing on Lake Champlain this year?

  > → Combine Q 7 and Q 8 so the question reads, On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your satisfaction with ice fishing for [target] on Lake Champlain this year?
  >
  > We should not ask this at the start of the season. It is unlikely we will get a positive response early on and more likely we will get NA responses, which are not useful.

  Q 9. On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your satisfaction with ice fishing in Lake Champlain this year for __[second target]__? Most anglers were fishing for one target.

  Q 11. On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your satisfaction with yellow perch fishing in Lake Champlain this year?

- Collect more Yellow perch length data from angler catches to better track trends

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Appendix 1. 2021 Ice Fishing Creel Survey Questionnaire

Clerk: _____ Bay: _____ Interview #: _____

Date: _____/_____/2021 (circle) Weekday / Weekend Time: ___:___ # anglers in party: _____

1. Have you already been interviewed this winter? Yes / No
2. What time did you START fishing today? _____: _____AM / PM **Catch card given:** Y / N
3. What time did you STOP fishing today? _____: _____AM / PM
4. From where did you access the ice today? _____ [launch, marina, private]
5. What species were you fishing for today? Number

   Target 1: _____ Caught: _____ Kept: _____

   Target 2: _____ Caught: _____ Kept: _____

   Other 1: _____ Caught: _____ Kept: _____

   Other 2: _____ Caught: _____ Kept: _____

Angler opinion questions: [Circle angler's response]

6. On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your fishing experience today?

   1 2 3 4 5

7. On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your satisfaction with ice fishing on Lake Champlain this year?

   1 2 3 4 5 NA

8. On a scale of 1 to 5, with 1 being the worst and 5 being the best. How would you rate your satisfaction with ice fishing in Lake Champlain this year for_[record target species]_____?

   1 2 3 4 5

9. On a scale of 1 to 5, with 1 being the worst and 5 being the best. How would you rate your satisfaction with ice fishing in Lake Champlain this year for_[record 2nd target species]_____?

   1 2 3 4 5 NA

10. How many days per year do you typically ice fish for Yellow Perch in Lake Champlain? _____
11. [If they answer 1 or more to Q 10, ask:] On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your satisfaction with Yellow Perch fishing in Lake Champlain this year?

    1 2 3 4 5

12. Do you have any comments or concerns about the fishery?

    _____

    _____

    _____

13. Can I measure the fish you kept? Y / N [Record kept species on Fish form]

Appendix 2. 2022 Ice Fishing Creel Survey Questionnaire

Clerk: _____ Bay: _____ Interview #: _____

Date: _____/_____/2022 Weekday / Weekend [circle] Time: _____:_____ # anglers in party: _____

1. What time did you START fishing today? _____: _____AM / PM

2. What time did you STOP fishing today? _____: _____AM / PM **or** Catch card given: Y / N [circle]

3. What species were you fishing for today? Number

   Target 1: _____ Caught: _____ Kept: _____

   Target 2: _____ Caught: _____ Kept: _____

   Other 1: _____ Caught: _____ Kept: _____

   Other 2: _____ Caught: _____ Kept: _____

   Other 3: _____ Caught: _____ Kept: _____

4. On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your fishing experience today?

   1 2 3 4 5 NA [Circle angler's response]

5. On a scale of 1 to 5, with 1 being the worst and 5 being the best, how would you rate your satisfaction with ice fishing for __[target]__on Lake Champlain so far this year?

   1 2 3 4 5 NA [Circle angler's response]

6. How many days per year do you typically ice fish for Yellow Perch in Lake Champlain? _____

7. Do you have any comments or concerns about the fishery?

   _____

   _____

   _____

8. Can I measure the fish you kept? Y / N

Fish No.	Species	Length (mm)	Fin Clips
1			
2			
3			
4			
5			

Notes: