WISCONSIN DEPARTMENT OF NATURAL RESOURCES

LAKE SUPERIOR CREEL REPORT 2022

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INTRODUCTION

The Wisconsin Department of Natural Resources (DNR) Lake Superior Fisheries Management Team conducts an annual creel survey of the open-water and ice fishing seasons in Wisconsin waters of Lake Superior spanning from Superior, WI (Douglas County) to Saxon Harbor (Iron County). In addition, DNR staff gather monthly harvest reports from all charter trips (Sport Trolling License) and mandatory daily reports from guided trips (Wisconsin Guide License) in Wisconsin waters of Lake Superior. This creel survey is a major undertaking for the DNR's Lake Superior Fisheries Management Team in terms of time and money. Approximately 5,000 seasonal employee hours (i.e., creel clerks) and hundreds of hours of permanent staff (e.g., processing data, reports, etc.) are required each year to effectively run the creel survey.

The harvest and data from this creel survey are important for numerous reasons. First, Lake Trout harvest estimates from management unit WI-2 are monitored closely to ensure the sport harvest does not exceed the portion of the quota allotted to sport fishing. Second, Lake Trout sport harvest, fishing effort and sizes of harvested Lake Trout are important inputs into a statistical catch-at-age model, which is used to estimate population size and ultimately set the Lake Trout total allowable catch in WI-2. Third, harvest estimates of all species from the creel survey are used to evaluate the effects of fishing regulation changes on sport fishing harvest. Lastly, harvest results are continually used to monitor "return-to-creel" rates of stocked fish and assess sport fishing preferences and the popularity of various fisheries.

METHODS

The sport fishery harvest in Wisconsin waters of Lake Superior was estimated during the normal Lake Trout sport fishing season (Dec. 1 through Sept. 30). Fishing effort, harvest and harvest rates were determined from 1) a series of randomized creel surveys during the ice fishing season (WI-2 only) and the open-water fishing season and 2) mandatory licensed charter and guided trip reporting.

In summary, a creel survey estimates fishing effort (hours) through a series of random vehicle/trailer counts at public access locations and then extrapolates those effort values to the total number of fishing days. Creel clerks interview anglers, which provides information such as the number of anglers in the party, time spent fishing, relative location fished, species targeted, number of fish harvested and biological characteristics (e.g., length, fin clips, etc.) of harvested fish. From this information, anglers are separated into various "fisheries" (see more details of different fisheries below) in order to appropriately allocate the estimated effort to various fisheries. Harvest rates (number of fish per angler hour) are also calculated from interview information; harvest rates and total effort are calculated for each fishery by day type (i.e., weekend/weekday) for each location (e.g., Ashland route) within each month. Harvest estimates are calculated by multiplying the harvest rate by the total effort (angler hours) within each of these groupings.

Harvested fish were identified and measured to the nearest tenth of an inch. Fin clips and any tags that were present were recorded. Maxillae (or a jaw bone) were also sampled from a subset of Lake Trout to obtain estimates of fish ages. The Wisconsin waters of Lake Superior are divided into two management units: WI-1 or the Western Arm (west of the line running north-south from Bark Point; 46 deg. 53.21 min. N, 91 deg. 11.16 min. W) and WI-2 or the Apostle Islands region (east of the Bark Point line; Figure 1). Creel results were separated by management unit.

Interview and count (effort) data were entered into a Microsoft Access database and subsequently run through a program in the statistical program R (R version 4.1.3) to obtain harvest and effort estimates. Original functions to calculate creel statistics and randomize creel schedules were developed by Dr. Derek Ogle of Northland College.

DECEMBER OPEN-WATER SURVEY

An open-water creel survey was conducted along the main shore from Dec. 1, 2021 – Dec. 31, 2021 (final ice up) at access points near Washburn and Bayfield. Trailer counts and interviews were obtained using a stratified, access-point survey method. Interviews were conducted in the same manner as the open-water survey method (below).

ICE CREEL SURVEY

An ice creel survey was conducted near Ashland (i.e., Second Landing-Long Bridge) from Dec. 18, 2021 to April 20, 2022 and near Washburn/Bayfield ("S" Curve-Bono Creek access through the northern most area of fishing activity) from Dec. 24, 2021 – April 20, 2022. Vehicle counts were obtained using a stratified, access-point survey method. Two separate vehicle counts were made daily, starting at approximately 9 a.m. and 2 p.m. for each site in each random route. Vehicles present in morning and afternoon checks were not counted twice. Interviews for the ice creel survey were conducted at the access point. Any number of anglers in a single vehicle was considered an angling party. Anglers interviewed in the ice fishery were separated into three different fisheries: Ice Shallow Water (less than 60 feet), Ice Deep Water- "Bobbing" (greater than or equal to 60 feet) and Northern Pike Ice Spearing.

OPEN-WATER SURVEY

In 2022, DNR staff conducted a single-loop time interval creel survey during the open-water fishing season on Wisconsin waters of Lake Superior. The following locations were surveyed (start date): Saxon (April 11), Ashland (May 9), Washburn (May 9), Apostle Islands (Bayfield, Red Cliff, Little Sand Bay; April 29), Cornucopia and Port Wing (April 29) and Superior (May 11). The open-water creel survey ended on Sept. 30, 2022.

Trailer counts and interviews were obtained using a randomized, single-loop time interval method (i.e., bus route). Using the time interval procedure, vehicles with boat trailers and harbor boats were counted at each access site. Boats going out to fish or returning from fishing were counted as a fraction of the time the clerk spent at the site (i.e., individual boat count = [creel shift in minutes – minutes at site] / creel shift in minutes). A boat beginning to fish was added to the initial count, and a boat stopping or returning from fishing was subtracted from the initial count.

Boats returning from fishing were interviewed at the access point. The total number of anglers on board was treated as an angler party, and parties were categorized by fishery. For example, if the boat was fishing for cool-water species such as Northern Pike, Walleye or Yellow Perch in a predominately cool-water area, it was recorded under the "Open-Water Cool" fishery. If the boat was trolling for trout and salmon (i.e., cold-water species), it was recorded under the "Open-Water Cold" fishery. If the boat was strictly practicing catch-and-release Smallmouth Bass fishing, it was recorded under the "Smallmouth Bass Only" fishery. If the boat was targeting Lake Whitefish by jigging, it was recorded under the "Open-Water Whitefish" fishery. These various fisheries are distinguished so that effort from the boat and trailer counts will accurately represent fishers on the water (e.g., Smallmouth Bass catch-and-release effort will not inflate Walleye harvest estimates). If the boat was fishing for "anything that bites," the area the boat fished would determine which fishery to place the interview. Finally, if the party was not fishing, it was placed in the category "Pleasure Boating," and that effort was not applied to harvest estimates.

Boats from chartered or guided trips were not counted in effort estimates at a site due to mandatory reporting (see below). Sailboats were also excluded from counts unless fishing gear (e.g., downriggers or rods) was present. The jurisdiction in which the boat fished was also determined. Saxon Harbor and ports within Superior, Wisconsin are considered boundary waters with Michigan and Minnesota, respectively. Effort and harvest of parties fishing in non-Wisconsin waters were not included in Wisconsin harvest estimates. Boats that fished both states' waters had half the total effort/harvest assigned to Wisconsin waters.

Anglers were also asked for their primary zip code of residence during interviews. A density map of the primary residence of anglers fishing Wisconsin waters of Lake Superior was created using a kernel density function in ArcGIS Pro.

CHARTER AND GUIDED TRIP REPORTING

Harvest estimates from chartered trips (Sport Trolling License) came from mandatory monthly reports that were initiated in 1973. Information on the number of anglers, hours fished, location (grid) and the number of various species harvested were included in the Sport Trolling License Monthly Report (Form 9400-249). Similarly, harvest, catch and effort information from guided trips (Wisconsin Guide License) were collected via an online daily reporting system.

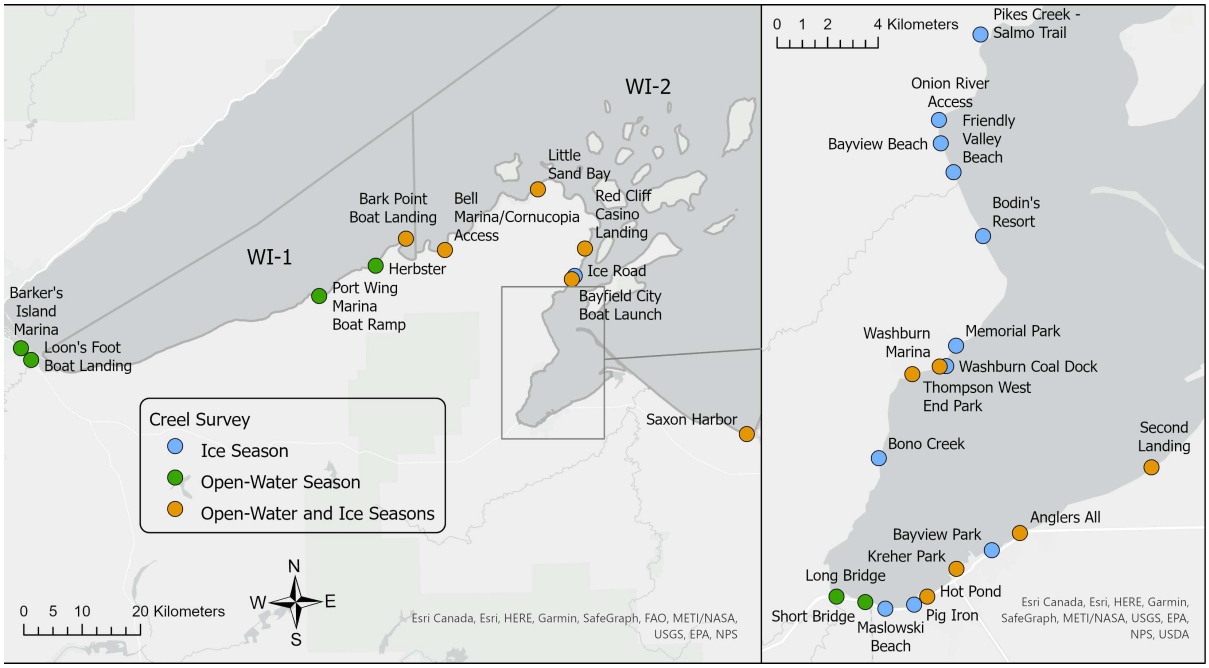

Figure 1. Wisconsin waters of Lake Superior, management units WI-1 and WI-2, and all ports sampled in the DNR Creel Survey (blue - ice season only; green - open-water season only; orange - both ice and open-water seasons).

RESULTS

ANGLER DEMOGRAPHICS

Primary residences were determined based on zip codes provided during creel interviews. The 2022 DNR Lake Superior Creel Survey included interviews of anglers residing in 19 different U.S. states and 123 U.S. counties (Figure 2). Approximately 79.9% of anglers were Wisconsin residents, and 18.0% were Minnesota residents. Lake Superior anglers were represented in 58 of 72 (81%) Wisconsin counties in 2022.

WI–1

The 2022 Lake Superior Creel Survey in WI-1 included 1,134 creel interviews of angler parties (2,539 anglers interviewed) resulting in an estimated 66,599 angler hours in WI-1, including chartered and guided trip reporting (Figure 3). The estimated harvest from all four fisheries in WI-1 was 8,657 fish (Figure 4). Walleye (3,586), Lake Trout (3,265) and Coho Salmon (1,076) accounted for 91.6% of the harvest. The total harvest rate was 0.1300 fish/hour (Figure 5). Walleye harvest rate was the highest (0.0538 fish/hour), followed by Lake Trout (0.0490 fish/hour) and Coho Salmon (0.0162 fish/hour).

The 2022 effort in WI-1 was a slight increase over last year's effort (64,415 angler hours) and 16% higher than the recent average effort (57,223 angler hours). The total fish harvest was 23.7% higher than last year's harvest (7,001) and similar to the recent average (8,360 fish). Walleye harvest doubled last year's harvest (1,749) and was 39.2% higher than the recent average (2,576 fish). Lake Trout harvest was similar to last year's harvest (3,282) and to the recent average (3,323 fish). Coho Salmon harvest estimate was 25.0% higher than last year's harvest (861) but 20.5% lower than the recent average (1,324 fish). Total harvest rate, Lake Trout harvest rate and Coho Salmon harvest rate were all lower than their respective recent averages, but the Walleye harvest rate was higher.

OPEN-WATER COLD

The Open-Water Cold fishery accounted for most of the effort in WI-1 with 38,110 angler hours (57.2% of the total fishing effort in WI-1). Anglers in the Open-Water Cold fishery harvested an estimated 4,745 total fish. Lake Trout (2,834), Coho Salmon (988) and Walleye (408) accounted for 89.1% of the harvest in this fishery. The total harvest rate was 0.1245 fish/hour. Lake trout harvest rate was highest (0.0744 fish/hour), followed by Coho Salmon (0.0259 fish/hour) and Walleye (0.0107 fish/hour).

The 2022 Open-Water Cold effort was higher than its recent average, but the total harvest and total harvest rate were lower than their respective recent averages. Lake Trout harvest was higher than the recent average, while the Lake Trout harvest rate was lower than the recent average. Coho Salmon harvest and harvest rate were both lower than their respective recent averages, but Walleye harvest and harvest rate were both higher than their recent averages.

OPEN-WATER COOL

The Open-Water Cool fishery accounted for 26,405 angler hours in WI-1 (39.6% of the total fishing effort in WI-1). Anglers in the Open-Water Cool fishery harvested 3,342 total fish. Walleye harvest (3,082) accounted for 92.2% of the harvest in this fishery. The total harvest rate was 0.1266 fish/hour, and the Walleye harvest rate was 0.1167 fish/hour.

The 2022 Open-Water Cold effort, total fish harvest, total harvest rate, Walleye harvest and Walleye harvest rate were all higher than the respective rates last year and their respective recent averages in 2022.

CHARTER

The charter fishery accounted for 1,972 angler hours in WI-1 (3.0% of the total fishing effort in WI-1). Anglers in the charter fishery harvested 542 fish. Lake Trout (373), Coho Salmon (69) and Walleye (68) accounted for 94.1% of the harvest. The total harvest rate was 0.2748 fish/hour. The Lake Trout harvest rate was highest (0.1891 fish/hour), followed by Coho Salmon (0.0350 fish/hour) and Walleye (0.0345 fish/hour).

The 2022 Charter effort and total fish harvested declined for the fourth year in a row in WI-1. Effort, total harvest, total harvest rate, Lake Trout harvest, Lake Trout harvest rate, Coho Salmon harvest and Coho Salmon harvest rate were all lower than their respective recent averages. Walleye harvest and Walleye harvest rate were higher than their respective recent averages.

Please refer to the DNR Lake Superior Charter Fishing Report 2022 for a more detailed account of the 2022 charter fishery.

GUIDE

Starting in January 2022, all licensed guides who take clients on trips on Lake Superior or its tributaries were required to report effort and harvest online daily. The Guide fishery accounted for 112 angler hours (0.2% of the total fishing effort in WI-1) on Lake Superior proper in WI-1. Anglers in the Guide fishery harvested 28 Walleye. The Walleye harvest rate was 0.25 fish/hour.

WI–2

The 2022 Lake Superior Creel Survey in WI-2 included 1,062 creel interviews of angler parties (2,735 anglers interviewed) resulting in an estimated 254,805 angler hours, including chartered and guided trip reporting (Figure 3). The estimated harvest was 57,737 fish (Figure 4). Lake Trout (13,405), Lake Whitefish (12,885), Coho Salmon (7,917), Yellow Perch (7,457), Splake (3,739) and Brown Trout (3,569) were the top six species harvested and accounted for 84.8% of the harvest. The total harvest rate was 0.2266 fish/hour (Figure 5). Lake Trout harvest rate was highest (0.0526 fish/hour), followed by Lake Whitefish (0.0506 fish/hour), Coho Salmon (0.0311 fish/hour), Yellow Perch (0.0293 fish/hour), Splake (0.0147 fish/hour) and Brown Trout (0.0140 fish/hour).

The 2022 total effort, total fish harvest, Lake Trout harvest and harvest rate, Lake Whitefish harvest and harvest rate, Coho Salmon harvest and harvest rate, Splake harvest and harvest rate, and Brown Trout harvest were all higher than their respective recent averages in WI-2. Total harvest rate, Yellow Perch harvest and harvest rate, and Brown Trout harvest rate were lower than their respective recent averages.

DECEMBER OPEN-WATER

The December Open-Water fishery accounted for 470 angler hours in WI-2 (0.2% of the total fishing effort in WI-2). Anglers in this fishery harvested 234 fish (0.4% of the total harvest in WI-2). Coho Salmon harvest was the highest with 131 fish (56.0% of the total harvest), followed by Splake (74), Brown Trout (17), Lake Trout (9) and Lake Whitefish (3). The total harvest rate was 0.4979 fish/hour. This was the highest harvest rate of all fisheries sampled in WI-2.

The 2022 December Open-Water effort and total fish harvested were lower than their respective recent averages. However, the total harvest rate was slightly higher than the recent average of 0.4807 fish/hour.

ICE < 60 FEET - SHALLOW

The Ice < 60 feet – Shallow fishery accounted for 84,885 angler hours in WI-2 (33.3% of the total fishing effort in WI-2). Anglers in this fishery harvested 27,708 total fish (48.0% of the total harvest). Lake Whitefish (7,035), Yellow Perch (6,817), Rainbow Smelt (3,491), Coho Salmon (3,230), Splake (2,877) and Brown Trout (2,036) were the top six species harvested and accounted for 92.0% of the total harvest in this fishery. The total harvest rate was 0.3264 fish/hour. Lake Whitefish harvest rate was the highest (0.0829 fish/hour), followed by Yellow Perch (0.0803 fish/hour), Rainbow Smelt (0.0411 fish/hour), Coho Salmon (0.0381 fish/hour), Splake (0.0339 fish/hour) and Brown Trout (0.0240 fish/hour).

The 2022 Ice < 60 feet – Shallow fishery total effort and harvest and harvest rates for Lake Whitefish, Coho Salmon and Splake were higher than their respective recent averages. However, total, Yellow Perch and Rainbow Smelt harvest and harvest rates were all lower than their respective recent averages.

ICE ≥ 60 FEET - BOBBING

The Ice ≥ 60 feet - Bobbing fishery accounted for 28,942 angler hours in WI-2 (11.4% of the total fishing effort in WI-2). Anglers in this fishery harvested 5,549 fish or 9.6% of the total harvest. Lake Whitefish (3,308) and Lake Trout (1,586) accounted for 88.2% of the harvest in this fishery. The total harvest rate was 0.1917 fish/hour. Lake Whitefish harvest rate was highest (0.1143 fish/hour) followed by Lake Trout (0.0548 fish/hour).

The 2022 Ice ≥ 60 feet - Bobbing fishery total effort and harvest, Lake Whitefish and Lake Trout harvest were all higher than their respective recent averages. However, the harvest rates of these species were all lower than their respective recent averages.

OPEN-WATER COLD

The Open-Water Cold fishery accounted for 80,537 angler hours in WI-2 (31.6% of the total fishing effort in WI-2). Anglers in this fishery harvested 15,111 total fish (26.2% of the total harvest in WI-2). Lake Trout (8,704), Coho Salmon (3,945) and Brown Trout (1,225) were the top three species harvested and accounted for 91.8% of the harvest in this fishery. The total harvest rate was 0.1876 fish/hour. Lake Trout harvest rate was the highest (0.1081 fish/hour) followed by Coho Salmon (0.0490 fish/hour) and Brown Trout (0.0152 fish/hour).

The 2022 Open-Water Cold fishery effort, total fish harvest, total harvest rate, Coho Salmon estimated harvest, Brown Trout estimated harvest and Brown Trout harvest rate were lower than their respective recent averages. However, Lake Trout estimated harvest, Lake Trout harvest rate and Coho Salmon harvest rate were higher than their respective recent averages.

OPEN-WATER COOL

The Open-Water Cool fishery accounted for 25,515 angler hours in WI-2 (10.0% of the total fishing effort in WI-2). Anglers in this fishery harvested 2,659 total fish (4.6% of the total harvest in WI-2). Walleye (1,482), Yellow Perch (585) and Northern Pike (450) were the top three species harvested and accounted for 94.7% of the total harvest in this fishery. The total harvest rate was 0.1042 fish/hour. Walleye harvest rate was highest (0.0581 fish/hour), followed by Yellow Perch (0.0229 fish/hour) and Northern Pike (0.0176 fish/hour).

The 2022 Open-Water Cool fishery effort and total fish harvest were lower than their respective recent averages. However, the total harvest rate, Walleye harvest and Walleye harvest rate were higher than their respective recent averages.

OPEN-WATER WHITEFISH

The Open-Water Whitefish fishery accounted for 3,775 angler hours in WI-2 (1.5% of the total fishing effort in WI-2). Anglers in this fishery harvested 2,259 fish (3.9% of the total harvest in WI-2). Lake Whitefish represented the highest catch with a harvest of 2,159 and a harvest rate of 0.5719 fish/hour. The effort, Lake Whitefish harvest and harvest rate were the lowest since the 2020 when the Open-Water Whitefish fishery was separated into its own fishery.

SMALLMOUTH BASS ONLY

The Smallmouth Bass Only fishery accounted for 15,560 angler hours in WI-2 (6.1% of the total fishing effort in WI-2). This effort was below the average effort since 2019 (17,809 angler hours). Most of this effort occurs in May and June from anglers fishing the eastern side of Chequamegon Bay. No Smallmouth Bass harvest was observed during the 2022 survey.

CHARTER

The charter fishery accounted for 9,946 angler hours in WI-2 (3.9% of the total fishing effort in WI-2). This represented the highest amount of effort in the charter fishery in WI-2 since 2000. Anglers in this fishery harvested 3,202 fish (5.5% of the total harvest in WI-2). Lake Trout (2,534), Coho Salmon (370) and Brown Trout (175) accounted for 96.2% of the harvest in this fishery. The total harvest rate was 0.3219 fish/hour. Lake Trout harvest rate was the highest (0.2548 fish/hour) followed by Coho Salmon (0.0372 fish/hour) and Brown Trout (0.0176 fish/hour).

The 2022 charter effort, total harvest, Lake Trout harvest, total harvest rate and Lake Trout harvest rate were all higher their respective recent averages.

Please refer to the DNR Lake Superior Charter Fishing Report 2022 for a more detailed account of the 2022 charter fishery.

GUIDE

Starting in January 2022, all licensed guides who take clients on trips on Lake Superior or its tributaries were required to report effort and harvest online daily. The guide fishery accounted for 5,175 angler hours in WI-2 (2.0% of the total fishing effort in WI-2). Anglers in this fishery harvested 988 fish (1.7% of the total harvest in WI-2). Lake Whitefish (305), Lake Trout (214), Coho Salmon (112), Brown Trout (70) and Burbot (66) were the top five species harvested and accounted for 77.6% of the total harvest in this fishery. The total harvest rate was 0.1909 fish/hour. Lake Whitefish was the highest (0.0589 fish/hour), followed by Lake Trout (0.0414 fish/hour), Coho Salmon (0.0216 fish/hour), Brown Trout (0.0135 fish/hour) and Burbot (0.0128 fish/hour).

LAKE TROUT FISHERY

WI-1

Daily bag limit: 3, minimum length limit: 15 inches, only one > 25 inches

The estimated Lake Trout harvest by sport anglers fishing in WI-1 was 3,265 fish (Figure 6). This was similar to last year's harvest of 3,282 fish but slightly lower than the long-term average (i.e., since 2006; Figure 7). The Open-Water Cold fishery represented the highest harvest (2,834), followed by the Charter (373) and the Open-Water Cool fisheries (58).

The total Lake Trout harvest rate in WI-1 was 0.0490 fish/hour. The Charter fishery had the highest Lake Trout harvest rate (0.1891 fish/hour) followed by the Open-Water Cold fishery (0.0744 fish/hour) and the Open-Water Cool fishery (0.0022 fish/hour). The Lake Trout harvest rates for all three fisheries were lower than their respective recent averages.

WI-2

Daily bag limit: 2, minimum length limit: 15 inches, only one > 25 inches

Overall, ice conditions were good, so anglers were able to reach deeper preferred waters for Lake Trout bobbing, leading to a typical winter Lake Trout harvest. The open-water season started out slow as water temperatures were slow to rise, but July-September Lake Trout fishing was steady.

The estimated Lake Trout harvest by sport anglers fishing in WI-2 was 13,405 fish (Figure 6). This was slightly higher than the recent average (i.e., since 2006; Figure 7). The Open-Water Cold Fishery represented the highest Lake Trout harvest (8,704), followed by the Charter fishery (2,534), Ice $\geq$ 60 feet - Bobbing (1,586), Ice < 60 feet – Shallow (309), Guide (214), Open- Water Whitefish (49) and the December Open-Water fisheries (9).

The total Lake Trout harvest rate was 0.0526 fish/hour. This was higher than the recent average (0.0514 fish/hour). The Charter fishery had the highest Lake Trout harvest rate of all fisheries in the WI-2 (0.2548 fish/hour: Figure 8). This was similar to the long-term average (i.e., since 2000). The Open-Water Cold fishery represented the second-highest Lake Trout harvest rate in 2022 (0.1081 fish/hour), which was higher than last year and the long-term average (i.e., since 2006; Figure 7). The Ice $\geq$ 60 feet - Bobbing fishery had the third-highest Lake Trout harvest rate (0.0548 fish/hour).

ACKNOWLEDGEMENTS

We thank the creel clerks. They work hard obtaining accurate data for the survey, and they also play an important role by having positive interactions with the public. Their effort is greatly appreciated. The creel clerks involved for this report were: Devin Engel (December Open Water, Winter Creel: Washburn – Red Cliff Open-Water: Bayfield, Little Sand Bay, Red Cliff; Cornucopia, Port Wing), Dean Kolpin and Jared Myers (Open-Water: Saxon), Emily Hutler (Open-Water: Ashland, Washburn), and Reed Kostelny (Open-Water: Superior). I would also like to thank Dr. Derek Ogle, formerly of Northland College, who developed the functions to calculate creel statistics and randomize creel schedules in the statistical program R.

Note: For more detailed breakdowns of the DNR Lake Superior Creel Survey results, please refer to the Lake Superior Supplemental Creel Report 2022.

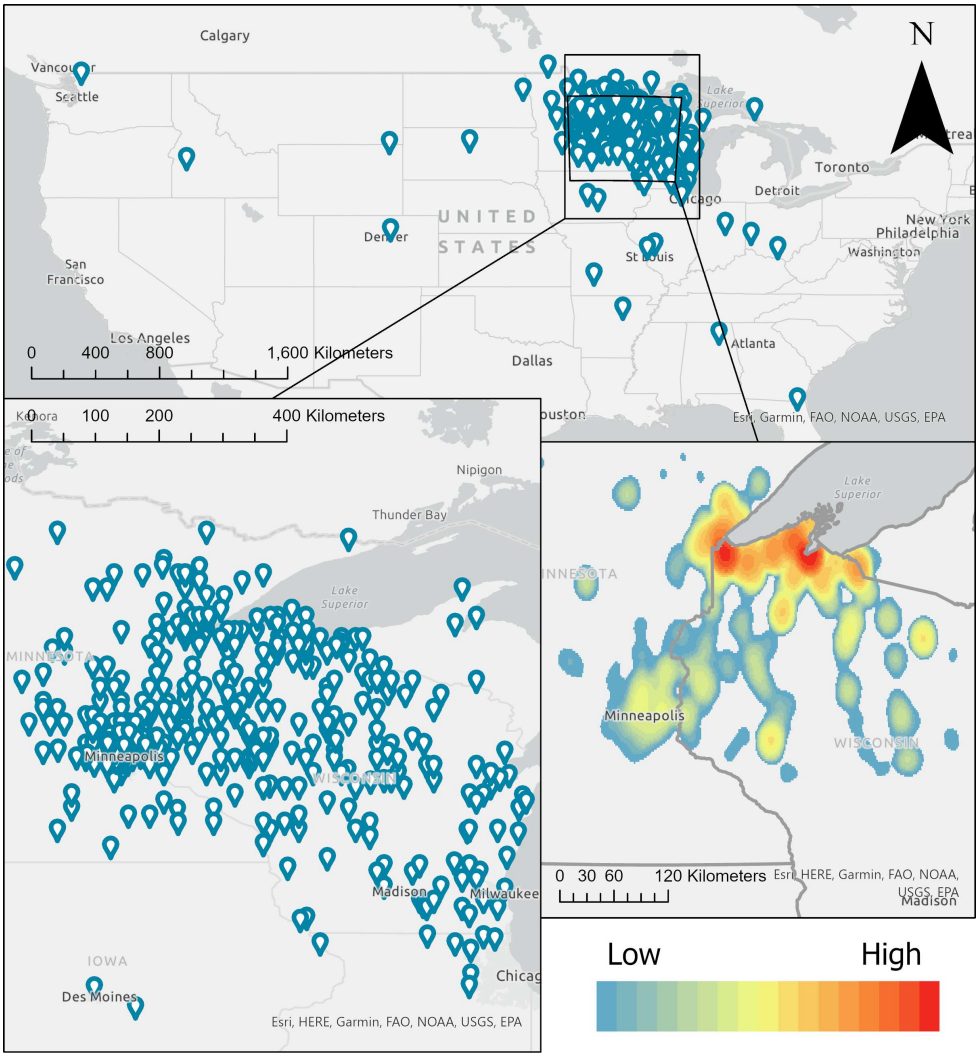

Figure 2. Bottom-left and top maps: individual zip code locations of angler primary residences observed during the 2022 Lake Superior Creel Survey. Bottom-right map: Density of primary residences of Lake Superior anglers interviewed in the 2022 Creel Survey fishing Wisconsin waters. Red shades represent areas of higher density and blue shades represent areas of lower density. Residences were determined based on zip codes provided during creel interviews.

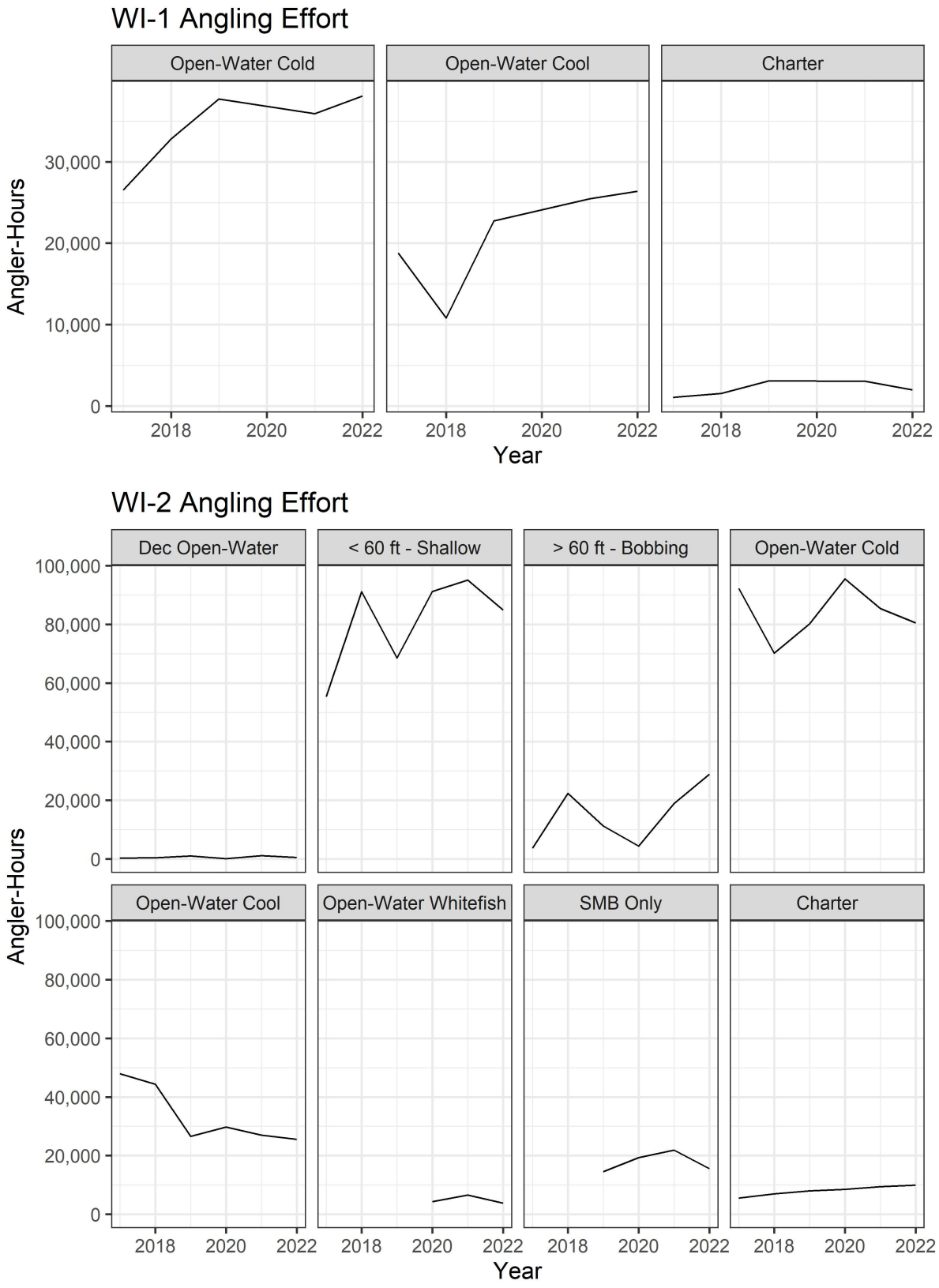

Figure 3. Total estimated fishing effort (angler hours) by each fishery sampled in the DNR Creel Survey within each management unit (WI-1 and WI-2) from 2017 to 2022.

Note: In WI-1, the Superior creel route was not completed in 2020. In WI-2, averages of "Open-Water" fisheries (does not include Charter) from 2017 to 2019 were used to estimate April, May and June values in 2020. Both of these changes were due to COVID-19 restrictions.

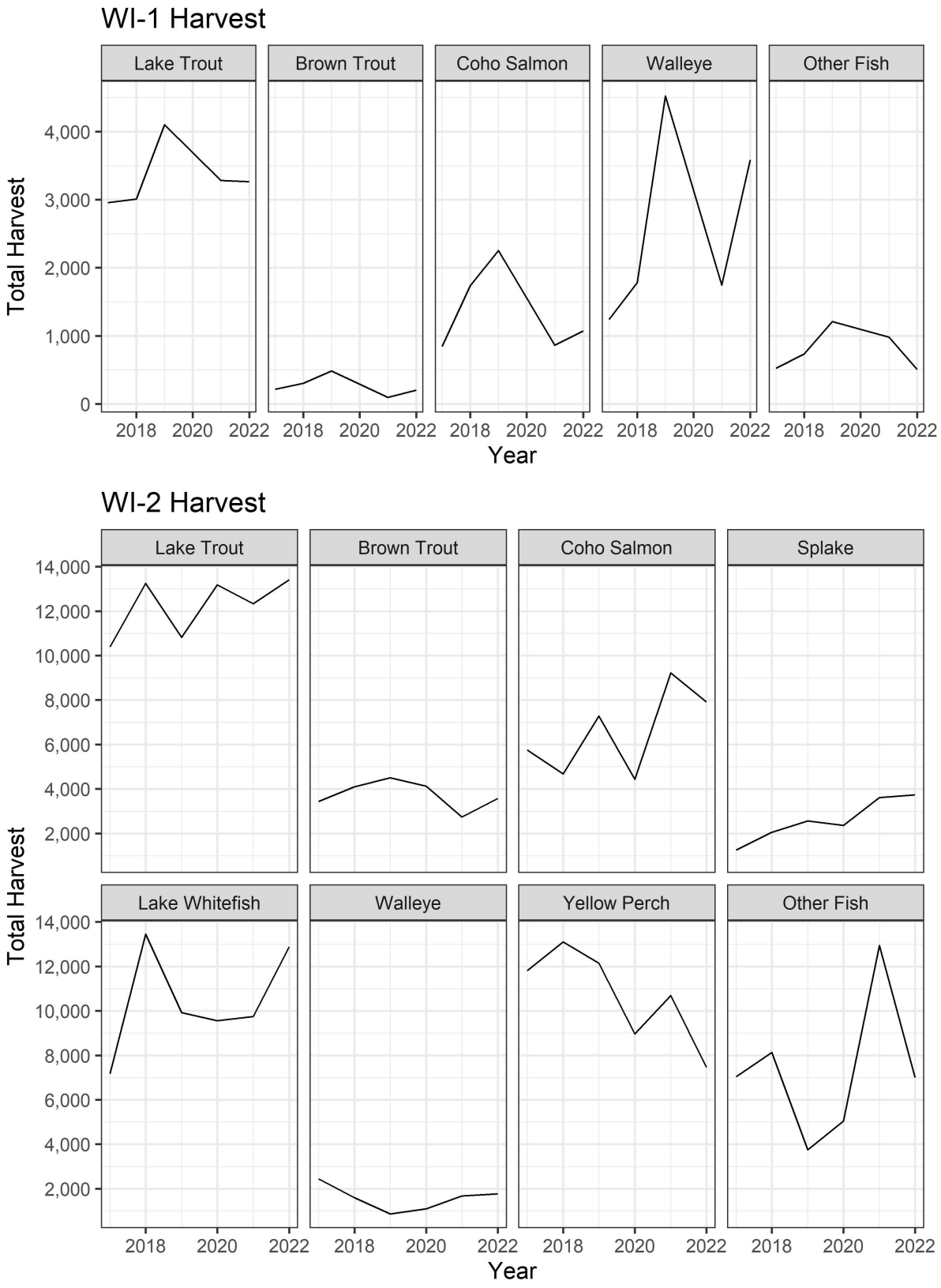

Figure 4. Total estimated harvest of the main species in the DNR Creel Survey within each management unit (WI-1 and WI-2) from 2017 to 2022. All other species are represented into the "Other Fish" category.
Note: In WI-1, the Superior creel route was not completed in 2020. In WI-2, averages of "Open-Water" fisheries (does not include Charter) from 2017 to 2019 were used to estimate April, May and June values in 2020. Both of these changes were due to COVID-19 restrictions.

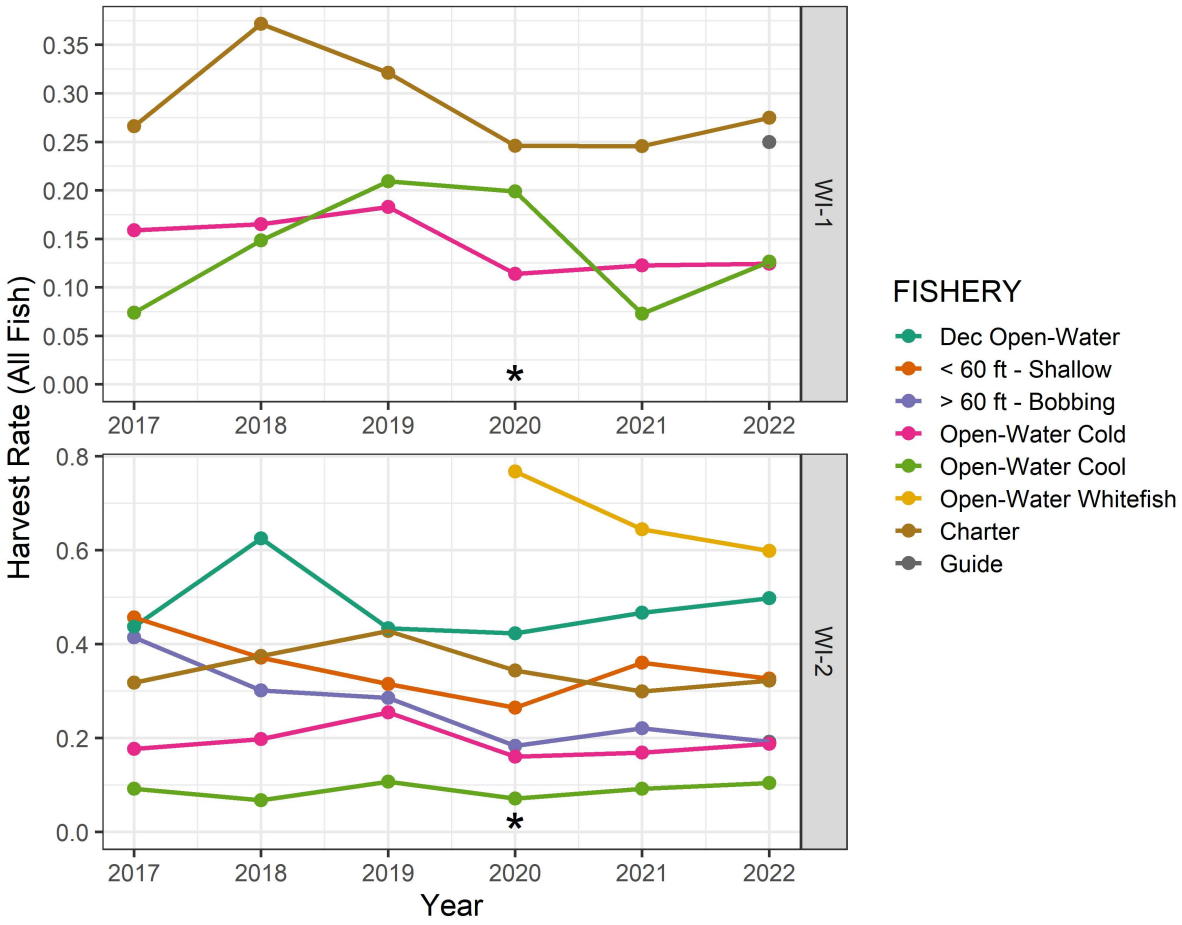

Figure 5. Estimated harvest rate (fish per angler hour) of all fish within each fishery sampled in the DNR Creel Survey within each management unit (WI-1 and WI-2) from 2017 to 2022.
Note: In WI-1, the Superior creel route was not completed in 2020. In WI-2, averages of "Open-Water" fisheries (does not include Charter) from 2017 to 2019 were used to estimate April, May and June values in 2020. Both of these changes were due to COVID-19 restrictions.

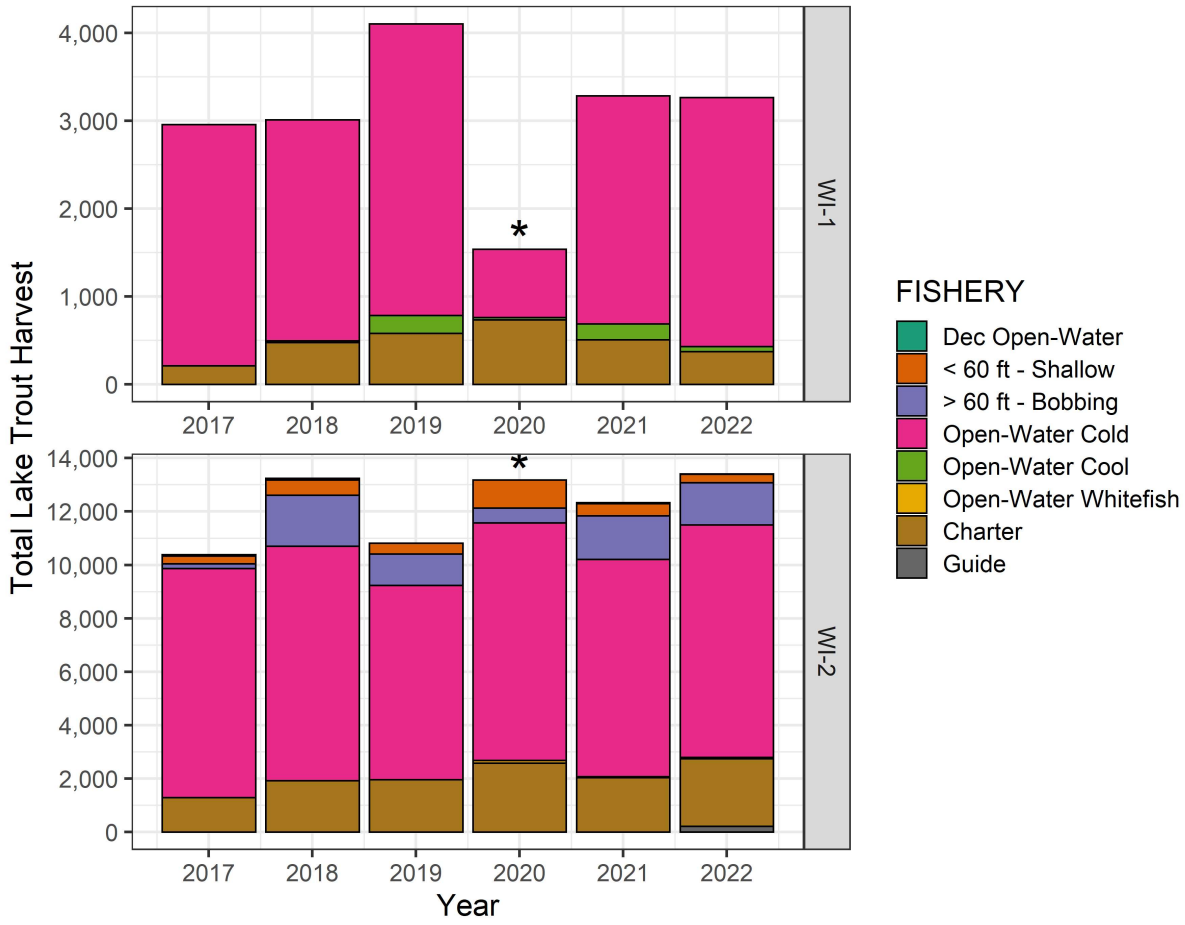

Figure 6. Total estimated harvest of Lake Trout by each fishery sampled in the DNR Creel Survey within each management unit (WI-1 and WI-2) from 2017 to 2022.

Note: In WI-1, the Superior creel route was not completed in 2020. In WI-2, averages of "Open-Water" fisheries (does not include Charter) from 2017 to 2019 were used to estimate April, May and June values in 2020. Both of these changes were due to COVID-19 restrictions.

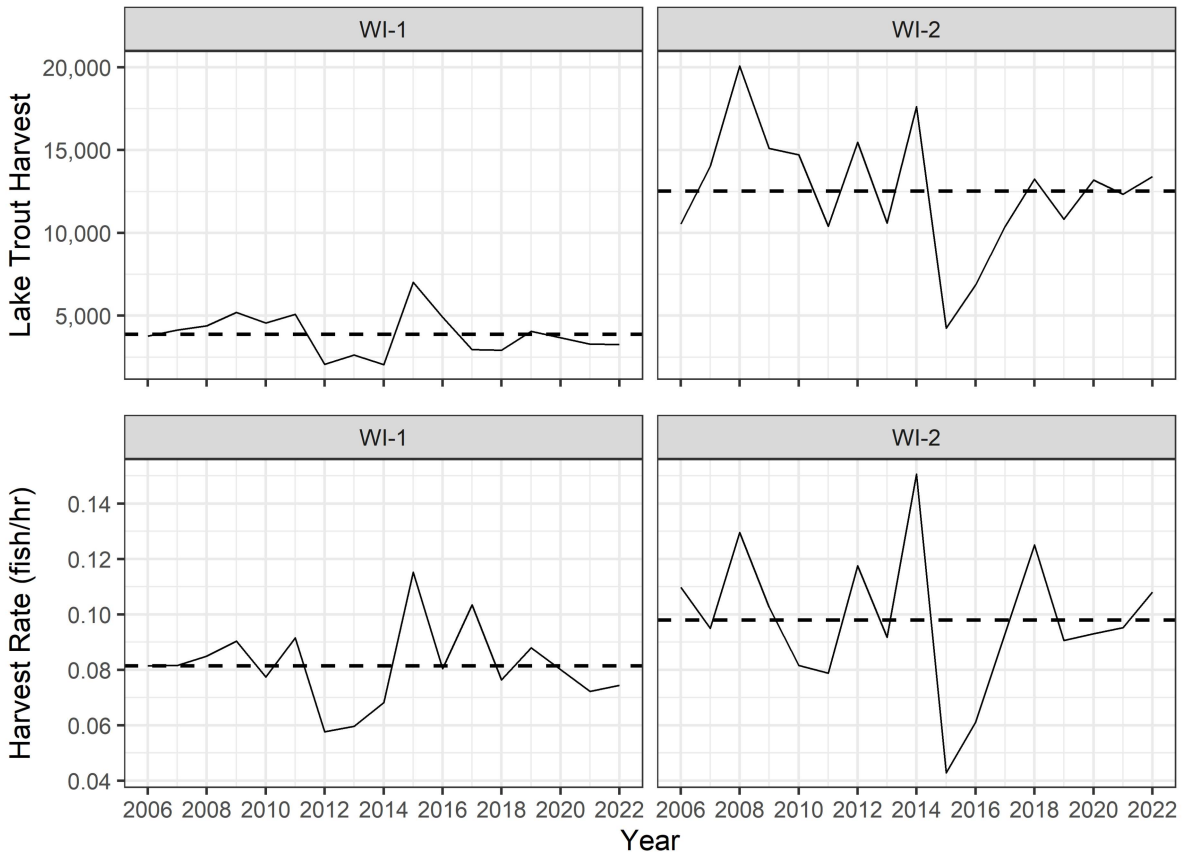

Figure 7. Estimated Lake Trout harvest (top) and harvest rate (bottom; fish per angler hour) in management unit WI-1 (left) and WI-2 (right) from 2006 to 2022. Total harvest is from all fisheries sampled in the DNR Creel Survey, and the harvest rate is from the Open-Water Cold fishery. Dashed lines are average values from throughout the time series.
Note: In WI-1, the Superior creel route was not completed in 2020. In WI-2, averages of "Open-Water" fisheries (does not include Charter) from 2017 to 2019 were used to estimate April, May and June values in 2020. Both of these changes were due to COVID-19 restrictions.

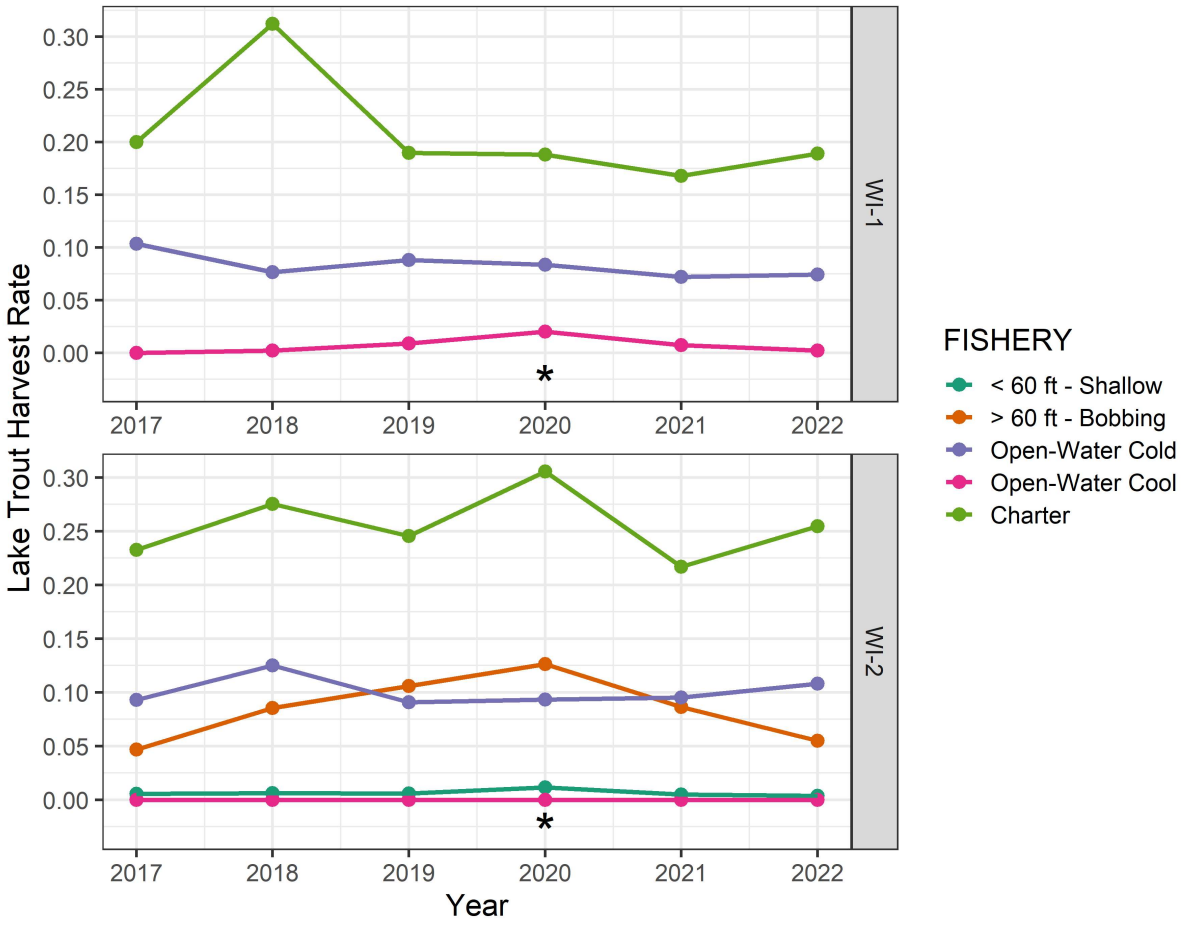

Figure 8. Estimated harvest rate (fish per angler hour) of Lake Trout by fishery sampled in the DNR Creel Survey within each management unit (WI-1 and WI-2) from 2017 to 2022.

Note: In WI-1, the Superior creel route was not completed in 2020. In WI-2, averages of "Open-Water" fisheries (does not include Charter) from 2017 to 2019 were used to estimate April, May and June values in 2020. Both of these changes were due to COVID-19 restrictions.