

Lake Ontario Fishing Boat Survey Summary Report 2024

NYS Department of Environmental Conservation, Lake Ontario Fisheries

This report summarizes Lake Ontario fishing quality during 2024 and presents results in four lake management areas compared with averages from the previous ten years. According to anglers surveyed, highlights include:

- Chinook Salmon fishing was outstanding in 2024 with mean catch rates ranking the 2nd highest on record in 39 years of conducting the survey. From April-July, Chinook catch rates were nearly double the 10-year average in all four lake management areas. Although Chinook fishing cooled off in August and September due to unstable temperature and windy lake conditions, this fishing season will be recorded as one of the all-time best.
- Chinook Salmon size has been trending lower recently, likely due to the high numbers of salmon and trout in the lake, however, mean weight of age-3 Chinook in August was still 19.2 lbs. with some fish weighing over 30 lbs. A trophy 37 lb. Chinook was caught in June.
- Brown Trout catch rates were 32% above the 10-year average for the whole season. In spring when browns are targeted most, catch rates in 2024 ranked the 8th highest in the series, with rates at- or above average in three of the four lake management areas.
- Coho Salmon are especially present in the west lake management area during spring and in the east lake management area during August and September. Catch rates for this species ranked 33% above the 10-year average in 2024.
- Atlantic Salmon are caught less frequently than other species; however, this native species adds to the amazing diversity of trophy salmon and trout available in Lake Ontario and provides a unique catch of a lifetime for lucky anglers. Catch rates for Atlantic salmon have increased in recent years and were 16% above average in 2024.
- Rainbow Trout and Lake Trout catch rates for were down in 2024; however, catch rates for these species can be affected by good Chinook fishing since they are targeted less when Kings are available. Steelhead catch rates were about average in the west lake management area where they are especially targeted by some anglers.
- Sea Lamprey are an invasive parasite that attaches to fish and can kill them or affect their growth. The number of sea lamprey observed by anglers increased slightly compared with 2023 but was well below the record levels observed in 2022.

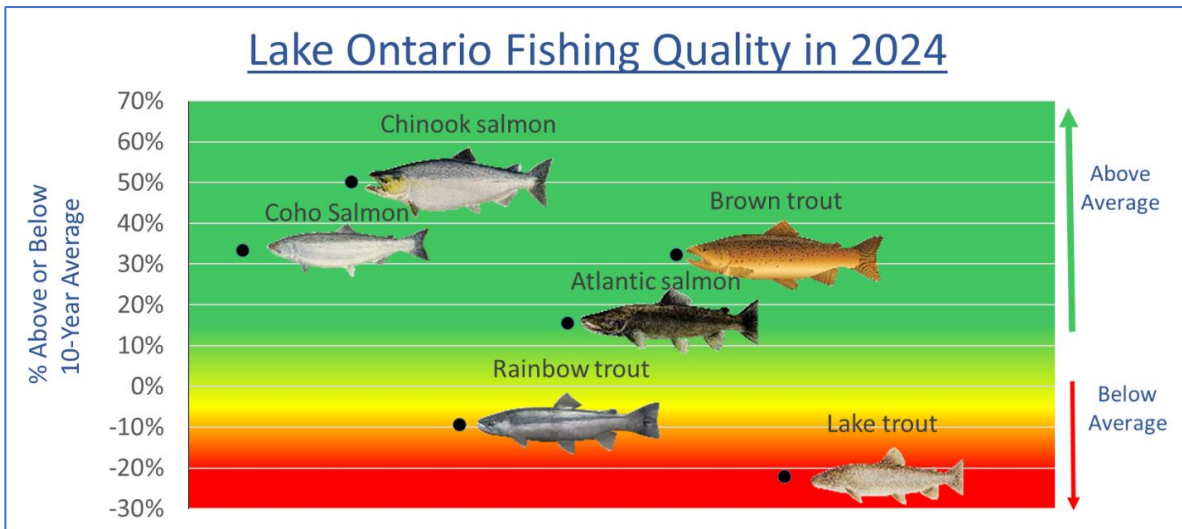


Figure 1. Summary of sportfishing quality for salmon and trout in New York waters of Lake Ontario in 2024.

Introduction

Lake Ontario provides anglers a diverse world-class trout and salmon fishery. The six salmonine species monitored in DEC’s fishing boat survey are the most sought-after fish in Lake Ontario and provide anglers with exceptional fishing opportunities throughout the open lake season and in tributaries all year, bringing an estimated \$564 million dollars annually to local economies.

The NYSDEC Lake Ontario Fishing Boat Survey has been conducted annually since 1985 to track angler effort, harvest, catch rate, fish size, lamprey abundance, and to collect other important information for management of the Lake Ontario fishery. In 2024, the Lake Ontario fishing boat survey was conducted at 20 channels from Niagara River to Henderson Harbor. From April 15-September 15, two survey teams conducted 226 site visits and interviewed 1,615 trout and salmon boats and 5,789 anglers; 40% were fishing on charter boats.

Chinook Growth and Condition

Chinook salmon is the top predator in Lake Ontario and their growth is sustained by sufficient prey fish in balance with predator fish populations. The weight of Age-3 Chinook in August is tracked as an indicator of predator/prey balance. Currently, populations of alewife, the main prey fish in Lake Ontario, are relatively high compared with recent years of monitoring (Weidel et al. 2024). Chinook populations are also relatively high as indicated by angler catch rates and river returns. As a result, the average size of age-3 Chinook in August 2024 was 19.2 lbs., which was 2.3 lbs. below the long-term average (Figure 2). Chinook weight increased by about ½ pound compared with 2023 and is currently 0.8 lbs. above the fisheries management objective of maintaining Chinook salmon weight at or above the level observed in 2007.

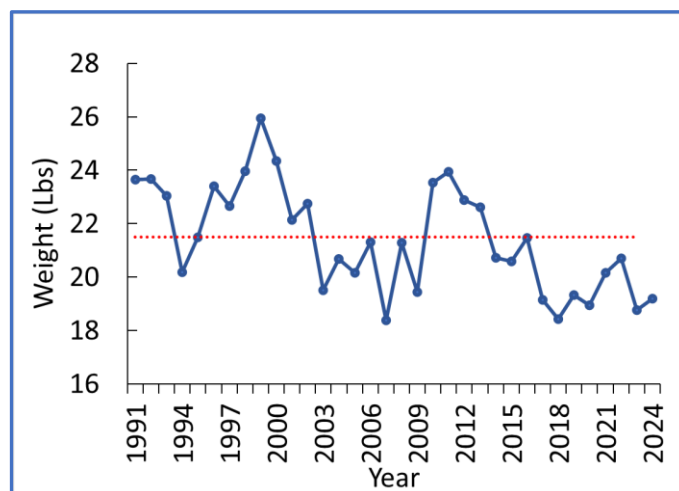


Figure 2. Average weight of age-3 Chinook in August from 1991-2024

Sea Lamprey Abundance

Sea lamprey is an invasive species of parasitic fish that attaches to fish and can kill them or affect their growth. During the boat survey, anglers are asked whether they observed any lamprey attached to fish during their fishing trip, and to which species the lampreys were attached. Fisheries managers track the number of lampreys observed per trout and salmon caught to inform sea lamprey control programs (Figure 3). In 2024, the number of sea lamprey per trout and salmon caught increased slightly compared to 2023 and was above the long-term average, however still well below the record high number of lampreys observed in 2022 associated with an interruption of the sea lamprey control program in 2020 due to COVID.

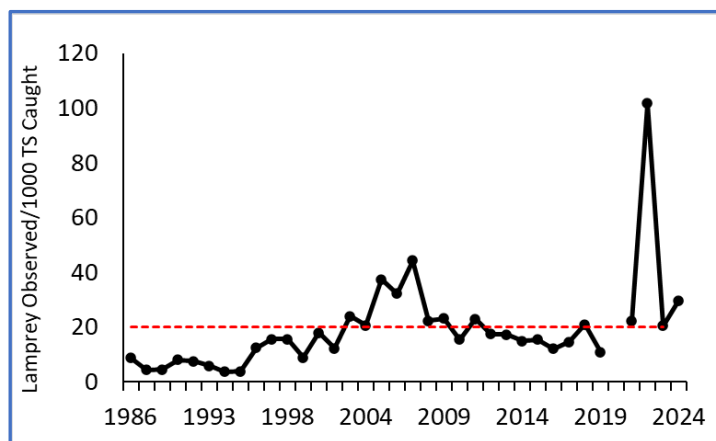


Figure 3. Number of sea lamprey observed per 1,000 salmon and trout caught.

Fishing Quality in 2024

Chinook salmon mean catch rates in 2024 were 50% above the recent 10-year average and ranked the 2nd highest on record in the 39-year survey. Lake-wide seasonal catch rates have been among the highest observed in six of the last seven years and are more than double the long-term average.

Brown trout are especially targeted by anglers in the spring and at other times in the season when Chinook salmon are not available. In spring 2024, mean catch rates for brown trout were 15% above the recent 10-year average despite excellent Chinook fishing. In August, anglers targeted browns more due to windy conditions and lower Chinook catch rates, resulting in mean catch rates for browns that were almost double the recent 10-year average in that month. For the whole season, brown trout fishing quality ranked 7th overall and 32% above the 10-year average.

Lake trout provide reliable catches throughout the season and are often targeted by anglers when other preferred species are not available. In 2024 catch rates for lake trout were 23% below average, likely due to excellent Chinook fishing throughout most of the season.

Steelhead are typically caught offshore and are especially targeted by anglers in the west in summer but add to the diversity of species available at other times and areas throughout the lake. In 2024, steelhead catch rates in the west in June and July were equal to the 10-year average and 9% below average lake-wide.

Coho salmon are a smaller component of the NY Lake Ontario fishery, especially caught in the west in the spring and in the east in fall. In 2024, catch rates were below average in the west, but higher in summer and fall in other areas. Overall, coho catches were 33% above the 10-year average.

Atlantic Salmon are caught less frequently than other species; however, this native species adds to the amazing diversity of trophy salmon and trout available in Lake Ontario and provides a unique catch of a lifetime for lucky anglers. Catch rates for Atlantic salmon have increased in recent years and were 16% above average in 2024.

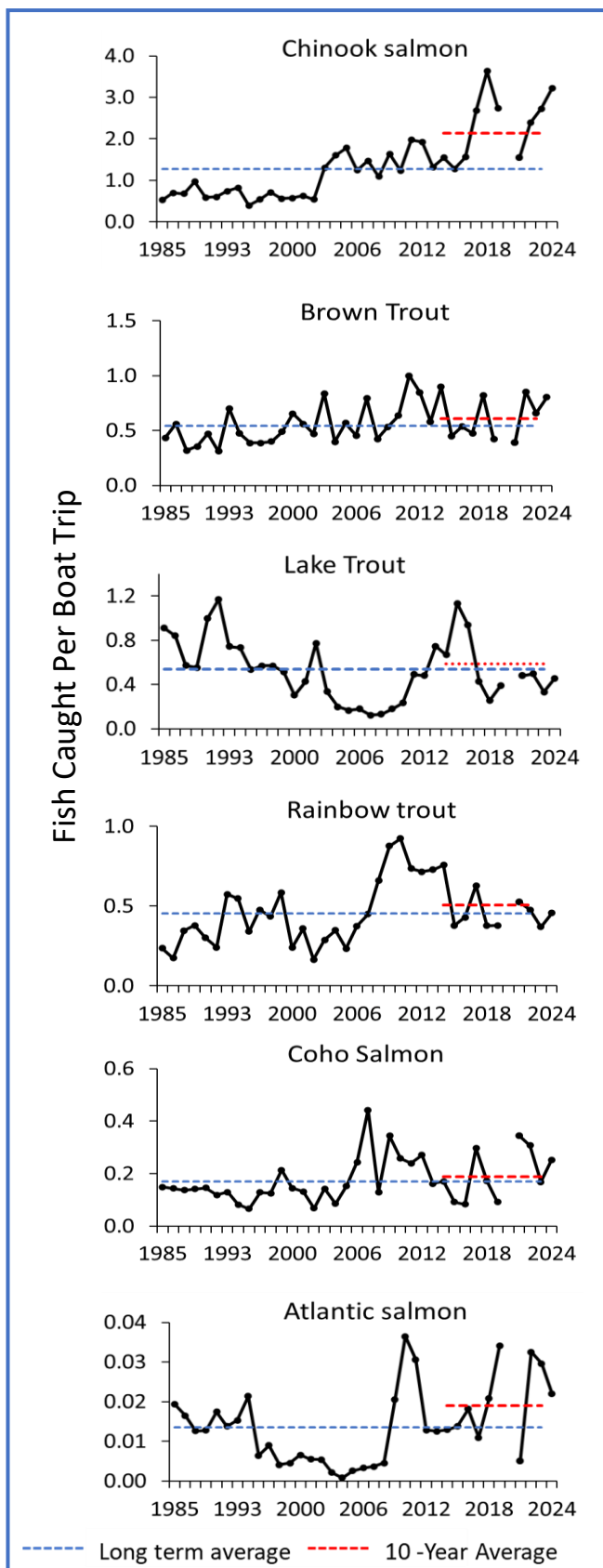


Figure 4. Fish caught per boat trip from 1985-2024 for six species of trout and salmon in NY waters of Lake Ontario.

April/May Fishing Report

Summary: Chinook salmon fishing quality was outstanding in April-May 2024 with average or above average Chinook salmon catch rates in all lake management areas (Figure 5). In spring, Chinook salmon are usually concentrated in the west area, but in 2024, Chinook salmon were available in all lake management areas, with catch rates averaging 2-4 times higher than normal depending on the area, and some boats reporting catches as high as 30 Chinook salmon per trip. Although the spring started off hot for Chinook in the west area too, anglers reported that the annual transition period came early, and fishing quality cooled off in late May ultimately leading to average catch rates of 2.7 fish per boat trip for the spring period which is near the 10-year average there. Brown trout are typically targeted by anglers during spring in the nearshore in Lake Ontario, especially when Chinook are not available (Figure 4). In 2024, anglers got out early due to warm winter conditions and reported excellent brown fishing before the fishing boat survey began in April, and then may have targeted brown trout less in April and May due to excellent early Chinook fishing. Nonetheless, spring brown trout fishing quality in 2024 ranked 8th in the 39-year survey overall. Some boats reported as many as 20 browns caught per trip with mean catch rates of about 2 fish per trip over all lake management areas and near or above the ten-year average in three of four lake management areas (Figure 5). Brown trout catch rates were down slightly in the west central area (by 16%) where Chinook fishing was exceptional. Lake trout were the 3rd most frequently caught species in spring 2024. Catch rates were near the ten-year average in east central and east areas and below average in west and west central areas, roughly adding 1 fish per boat trip lake wide. For other species, Coho salmon and Steelhead also contributed to catches in the spring, mostly in the west where Steelhead catch rates were slightly above average and Coho catch rates were slightly below average (Figure 5). Atlantic salmon catch rates in the spring were at- or above the ten-year average in all lake management areas and 32% above average lake-wide.

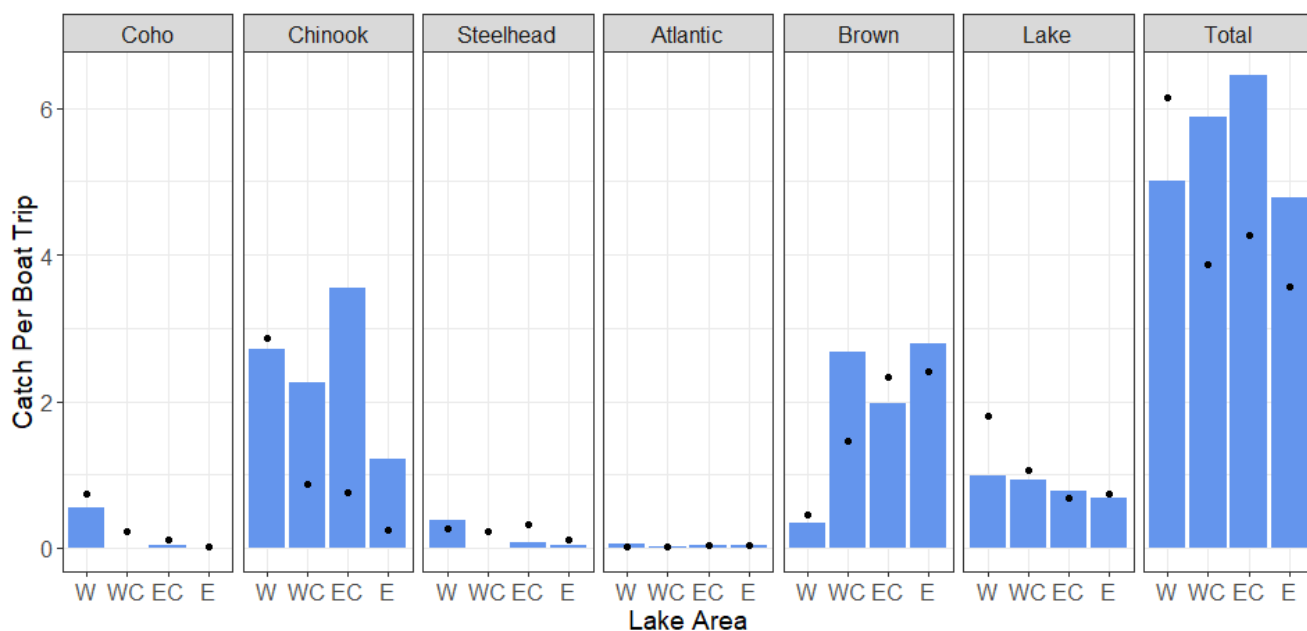


Figure 5. Average catch rate per boat trip for anglers targeting trout and salmon, April 15-May 31, 2024 (blue bars) compared with previous 10-year average catch rates (black dots) in four lake management areas of Lake Ontario including west (W), west central (WC), east central (EC) and east (E).

Lake management area	Number of Interviews	Percent of Trips with at least one fish	Catch Per Boat Trip						
			Coho Salmon	Chinook Salmon	Steelhead Trout	Atlantic Salmon	Brown Trout	Lake Trout	Total
West	159	77%	0.55	2.71	0.38	0.05	0.35	0.98	5.0
West Central	39	82%	0.00	2.26	0.00	0.03	2.67	0.92	5.9
East Central	100	81%	0.04	3.54	0.08	0.04	1.97	0.77	6.4
East	106	79%	0.00	1.22	0.03	0.05	2.79	0.69	4.8

Cells highlighted in green are above average, yellow are near average, and red are below average.

West Lake Management Area (Niagara-Point Breeze): Although the spring started off hot for Chinook, some anglers reported that the annual transition period came early and fishing quality cooled off in late May, ultimately leading to average catch rates of 2.7 fish per boat trip for the whole period. For other species, catch rates for rainbow trout (up 43%) and especially Atlantic salmon (up 112%) were above the ten-year average. Brown trout and lake trout average catch rates were down in this lake area, but good fishing for Chinook came early in April which may have affected catch rates for these species (i.e., more anglers targeted and caught kings, rather than lakers and browns). Anglers caught at least one trout and salmon per trip in 77% of the boats interviewed.

West Central Management Area (Bald Eagle-Irondequoit): Catch rates for most species were above average in this area in April-May with a total trout and salmon catch rate of 5.9 fish per boat trip, about 52% above the 10 year-average. Catch rates were especially up for Chinook (by 161%), Atlantic salmon (by 68%) and brown trout (by 82%). Lake trout and steelhead catches were down slightly but these species are targeted less when fishing for other species is good. Anglers caught at least one trout or salmon in 82% of the boats interviewed.

East Central Management Area (Bear Creek-Oswego): Fishing quality for Chinook in this area was on fire, 368% above average! Typically, Chinook are concentrated in the west areas in spring and brown trout are heavily targeted in east lake areas, however in 2024, Chinook were all over the south shore, and anglers targeted browns less. Brown trout catch rates were down slightly in this lake management area (by 16%) compared to the ten-year average, along with Coho (down by 63%), and Atlantic salmon (by only 1%) but these two species are usually minor components of the fishery in this area in spring. Overall, 81% of boats interviewed caught at least one fish, and averaged 6.4 trout and salmon per trip which is 51% higher than the 10-year average.

East Management Area (Cattfish Creek-Association Island, Henderson): Fishing quality for Chinook was also exceptional, with catch rates 410% above average! Catch rates for brown trout (up 16%) and Atlantic salmon (up 46%) were also relatively good. Overall, boats averaged 4.8 trout and salmon per trip, 8% better than the 10-year average. Anglers caught at least one trout or salmon in 79% of boats interviewed.

June/July Fishing Report

Summary: Excellent Chinook salmon fishing continued in June and July with record high catch rates that were nearly double the ten-year averages in all lake management areas, ranging from 2.5 per trip in the east to 7.2 in the west (Figure 6). Charters averaged 7.6 Chinook per trip and some interviews reported catching as many as 40 Chinook in a trip. Coho salmon fishing quality was also very good in June and July ranking in the top 5 all time for these months and ranging from 63% to 98% above average depending on the lake area (Figure 6). When Chinook fishing is good, catch rates for other species often decline because they are targeted less, as was the case in summer 2024. For example, catch rates for Brown trout were 36-58% below average in three of four lake management areas. Lake trout catch rates were 17-94% below average in three of four lake management areas and Steelhead catch rates were also down in three of four areas at least partly due to excellent Chinook fishing. Steelhead are often found in the offshore of Lake Ontario and mostly higher in the water column than other species. They are especially targeted in the west by some anglers during June and July. In 2024, mean catch rate in the west lake management area was nearly identical to the 10-year average in these months, so anglers that targeted Steelhead apparently had decent catch rates in that area. In other areas, Chinook were often reported caught close to shore in June and July, and this may have brought down Steelhead catch rates because anglers were fishing less in the offshore.

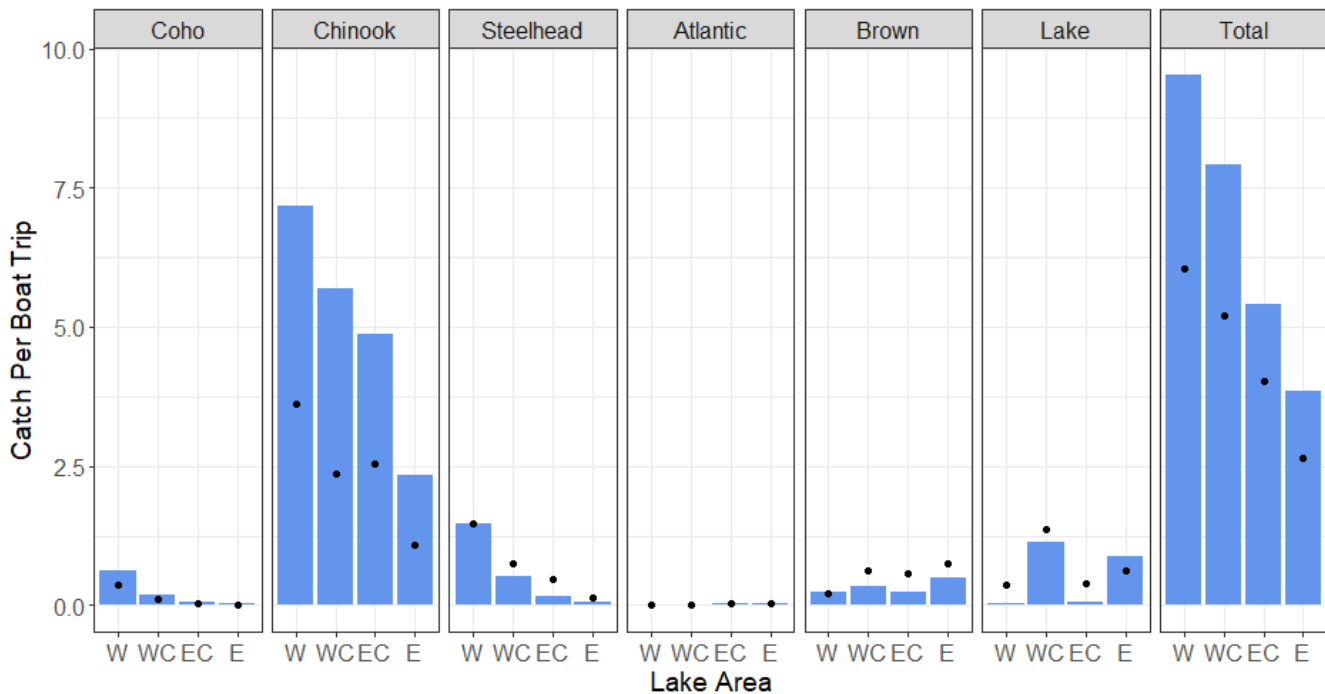


Figure 6. Average catch rate per boat trip for anglers targeting trout and salmon, June 1 to July 31, 2024 (blue bars) compared with previous 10-year average catch rates (black dots) in four lake management areas of Lake Ontario including west (W), west central (WC), east central (EC) and east (E).

Lake Area	Number of Interviews	Percent of Trips with at least one fish	Catch Per Boat Trip						Total
			Coho Salmon	Chinook Salmon	Steelhead Trout	Atlantic Salmon	Brown Trout	Lake Trout	
West	219	95%	0.61	7.18	1.46	0.02	0.23	0.02	9.5
West Central	86	94%	0.20	5.70	0.52	0.01	0.35	1.13	7.9
East Central	219	88%	0.07	4.86	0.16	0.02	0.24	0.06	5.4
East	87	77%	0.02	2.34	0.06	0.05	0.48	0.89	3.8

Cells highlighted in green are above average, yellow are near average, and red are below average.

West Lake management area (Niagara-Point Breeze): Fishing for Chinook salmon was excellent in this lake management area in June and July, with catch rates 94% above the ten-year average. Catch rates for Coho were also very good, i.e., about 70% above average. For other species, catch rates for rainbow trout (down 1%), brown trout (up 7%) and Atlantic salmon (down 4%) were near the ten-year averages. Lake trout average catch rate was down 94% in this lake management area, but good fishing for Chinook may have affected catch rates for this species (i.e., more anglers targeted and caught kings, rather than lakers). Anglers caught at least one trout and salmon per trip in 95% of the boats interviewed.

West Central Area (Bald Eagle-Irondequoit): Catch rates were also outstanding for Chinook (up 142%), Coho (84% above the 10-year average) and Atlantic salmon (up 20%) in the west central area for June/July. Although Lake trout and brown catches were down, these species are targeted less when fishing for other species is good. Anglers caught at least one trout or salmon in 94% of the boats interviewed, and overall, caught an average of 7.9 trout and salmon per trip.

East Central Area (Bear Creek-Oswego): Fishing quality for Chinook was up 91% and was up 63% for Coho in this area. Brown trout catch rates were down in this lake management area (by 58%) compared to the ten-year average, along with Lake trout (down by 85%), Steelhead (by 64%) and Atlantic salmon (by only 7%). Although trout catches were down, fishing for Kings may have made up for it. Overall, 88% of boats interviewed caught at least one fish, and averaged 5.4 trout and salmon per trip which is 34% higher than the 10-year average.

East Area (Catfish Creek-Association Island, Henderson): Fishing quality for salmon was exceptional this summer! Catch rates for Chinook, Coho and Atlantic salmon were 114%, 98% and 91% above ten-year averages respectively. Lake trout catches were also 40% above average so anglers still targeted lake trout during times when Chinook fishing slowed down. Anglers caught at least one trout or salmon in 77% of boats interviewed and averaged 3.6 salmon and trout per trip.

August/September Fishing Report

Summary: Windy conditions kept anglers off the water in August and September as fishing effort in these months dropped by about 38% compared to the recent 10-year average. Fishing quality for Chinook and other species also cooled off due to the windy conditions and unstable temperature profiles that scattered fish. Chinook salmon catch rates were below average by 11-56% depending on the lake management area (Figure 7). Chinook reportedly moved offshore when warm water piled up along the south shore and unfortunately, windy conditions and high waves prevented access at times. Anglers kept close to shore and targeted lake trout and brown trout or other species instead. Brown trout catch rates were double the ten-year average in all lake management areas, and lake trout catch rates were 32-100% above average in three areas. In the east area, anglers caught less lake trout per trip (down by 71%) but filled the box with more Coho (up by 61%) and in the west area, anglers caught more Steelhead (up 37%), Coho (up 41%), and Atlantic salmon (up by 120%) per trip.

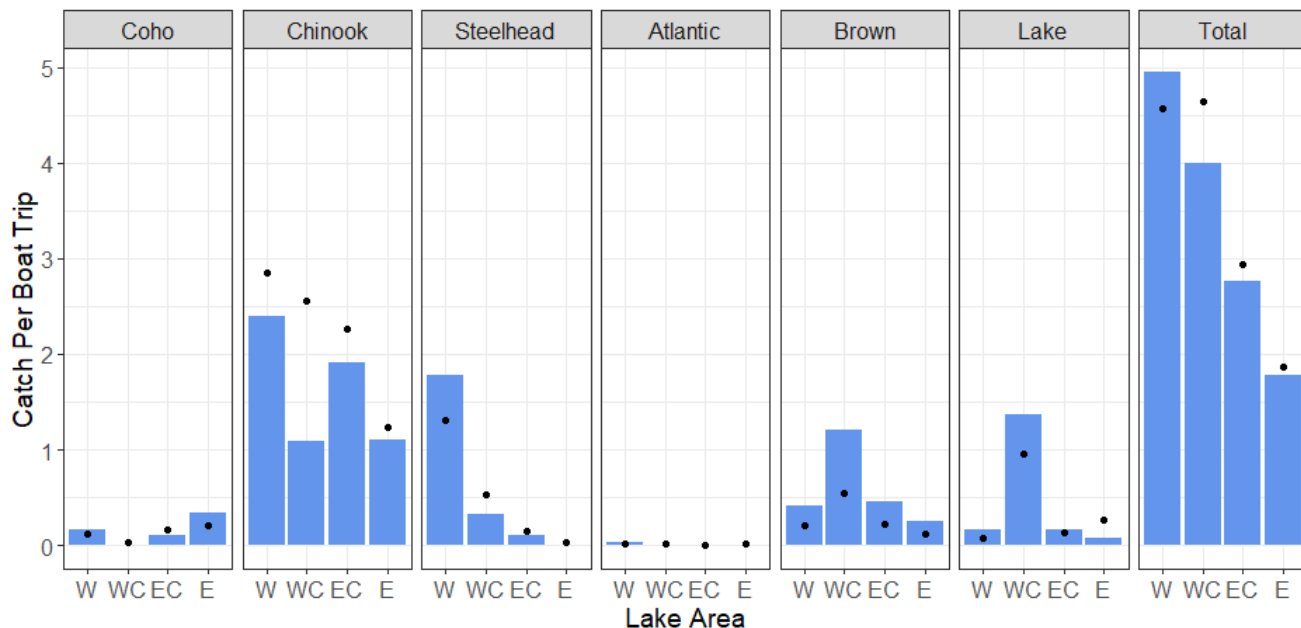


Figure 7. Average catch rate per boat trip for anglers targeting trout and salmon, August 1-September 15, 2024 (blue bars) compared with previous 10-year average catch rates (black dots) in four lake management areas of Lake Ontario including west (W), west central (WC), east central (EC) and east (E).

Lake management area	Number of Interviews	Percent of Trips with at least one fish	Catch Per Boat Trip						Total
			Coho Salmon	Chinook Salmon	Steelhead Trout	Atlantic Salmon	Brown Trout	Lake trout	
West	191	87%	0.16	2.40	1.79	0.03	0.41	0.16	4.9
West Central	43	60%	0.00	1.09	0.33	0.00	1.21	1.37	4.0
East Central	153	72%	0.10	1.92	0.10	0.01	0.46	0.17	2.8
East	232	55%	0.34	1.10	0.00	0.00	0.26	0.08	1.8

Cells highlighted in green are above average, yellow are near average, and red are below average.

West Lake management area (Niagara-Point Breeze): Chinook catch rates in this area were 16% below average, however, catch rates for other species were above average including Coho (by 41%), Steelhead (by 37%), brown trout (by 99%), and lake trout (by 100%) leading to catches of 4.9 trout and salmon per boat trip which was slightly above the 10-year average for this area in August/September. Anglers caught at least one trout and salmon per trip in 85% of the boats interviewed and reported a maximum of 28 total fish landed in a trip.

West Central Area (Bald Eagle-Irondequoit): Chinook catch rates in this area were 57% below average, however, anglers targeted brown trout and lake trout instead and catch rates for these species were 120% and 44% above average respectively. Anglers in the west central typically target these species more heavily than other lake management areas in these months. Steelhead apparently were either not available or not targeted offshore and catch rates for this species dropped 39% below the 10-year average in this area. Overall, anglers managed to catch an average of 4.0 trout and salmon combined, which was slightly (14%) below the 10-year average. Anglers caught at least one trout and salmon in only 60% of the boats interviewed, (down from 74%) and interviewed boats reported as many as 14 total trout and salmon landed per trip.

East Central Area (Bear Creek-Oswego): Chinook reportedly moved way offshore in August in this area and were not accessible at times due to windy conditions. Chinook catch rates dropped by about 15% and like in other areas, some anglers made up for it with brown trout and lake trout. Catch rates for these species were 100% and 32% higher than average. Catch rates were lower than average for Coho (by 34%), Steelhead (by 27%), and Atlantic (by 24%). Anglers still managed to land an average of 2.8 salmon and trout per trip which is slightly below normal for this area. Anglers caught at least one trout and salmon in 74% of the boats interviewed with some boats reporting as many as 15 total fish landed in a trip.

East Area (Catfish Creek-Association Island, Henderson): Chinook catch rates were slowed by windy conditions and unstable temperature profiles in August scattering fish, and anglers focused mostly on brown trout and eventually Coho instead. In September, catch rates for both Chinook and Coho salmon picked up as fish began staging off the Salmon River and elsewhere. In total, Chinook catch rates were slightly below average (by 11%) for August/September but catch rates for Coho salmon (up by 61%) and brown trout (up by 123%) were above the ten-year averages. Anglers caught at least one trout and salmon in 55% of the boats interviewed with boats reporting a maximum of 40 total fish landed.