STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES

FR49 April 2026

2025 Michigan Great Lakes Recreational Fisheries: Creel Surveys, Charter Reporting, and Historical Trends

Zhenming Su, Christopher Kemp, Eric Morrow, and Mark Vaas

www.michigan.gov/dnr

FISHERIES DIVISION
FISHERIES REPORT 49

Suggested Citation Format

Su, Z., C. Kemp, E. Morrow, and M. Vaas. 2026. 2025 Michigan Great Lakes recreational fisheries: creel surveys, charter reporting, and historical trends. Michigan Department of Natural Resources, Fisheries Report 49, Lansing.

MICHIGAN DEPARTMENT OF NATURAL RESOURCES (DNR) MISSION STATEMENT

"The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the state's natural and cultural resources for current and future generations."

NATURAL RESOURCES COMMISSION (NRC) STATEMENT

The Natural Resources Commission, as the governing body for the Michigan Department of Natural Resources, provides a strategic framework for the DNR to effectively manage your resources. The NRC holds monthly, public meetings throughout Michigan, working closely with its constituencies in establishing and improving natural resources management policy.

MICHIGAN DEPARTMENT OF NATURAL RESOURCES NON DISCRIMINATION STATEMENT

The Michigan Department of Natural Resources (MDNR) provides equal opportunities for employment and access to Michigan's natural resources. Both State and Federal laws prohibit discrimination on the basis of race, color, national origin, religion, disability, age, sex, height, weight or marital status under the Civil Rights Acts of 1964 as amended (MI PA 453 and MI PA 220, Title V of the Rehabilitation Act of 1973 as amended, and the Americans with Disabilities Act). If you believe that you have been discriminated against in any program, activity, or facility, or if you desire additional information, please write:

HUMAN RESOURCES
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
PO BOX 30028
LANSING MI 48909-7528

or

MICHIGAN DEPARTMENT OF CIVIL RIGHTS
CADILLAC PLACE
3054 W. GRAND BLVD., SUITE 3-600
DETROIT MI 48202

or

OFFICE FOR DIVERSITY AND CIVIL RIGHTS
US FISH AND WILDLIFE SERVICE
4040 NORTH FAIRFAX DRIVE
ARLINGTON VA 22203

For information or assistance on this publication, contact:

MICHIGAN DEPARTMENT OF NATURAL RESOURCES,
Fisheries Division
PO BOX 30446
LANSING, MI 48909
517-373-1280

TTY/TDD: 711 (Michigan Relay Center)

This information is available in alternative formats.

Michigan Department of Natural Resources
Fisheries Report 49, 2026

2025 Michigan Great Lakes Recreational Fisheries: Creel Surveys, Charter Reporting, and Historical Trends

Zhenming Su

Michigan Department of Natural Resources
Institute for Fisheries Research
NIB G250, 400 N Ingalls St
Ann Arbor, MI 48109

Christopher Kemp

Michigan Department of Natural Resources
Charlevoix Fisheries Research Station
92 N Grant St
Charlevoix, MI 49720

Eric Morrow

Michigan Department of Natural Resources
Gaylord Customer Service Center
1732 W M 32
Gaylord, MI 49735

Mark Vaas

Michigan Department of Natural Resources
Harrietta State Fish Hatchery
6801 W 30 Rd
Harrietta, MI 49638

Abstract

The Statewide Angler Survey Program (SASP) of the Michigan Department of Natural Resources (MDNR) Fisheries Division conducts long-term creel surveys and charter reporting to monitor recreational fisheries in the Michigan waters of the Great Lakes. These efforts also support Michigan's obligations under the 2023 Great Lakes Fishing Decree by providing standardized effort and harvest information required for shared Lake Trout *Salvelinus namaycush* and Lake Whitefish *Coregonus clupeaformis* stock assessments with tribal co-management partners. This report summarizes 2025 creel and charter data and evaluates trends from 2000 to 2025. In 2025, creel surveys were conducted at 84 Great Lakes sites and produced more than 21,140 angler interviews and 29,117 effort counts. Additionally, charter boat operators reported 20,772 trips. Anglers expended 4.48 million hours and caught 3.50 million fish, including 1.81 million harvested and 1.69 million released. Lake Huron accounted for 52% of effort and harvest in all Michigan waters of the Great Lakes, followed by Lake Michigan, where charter vessels contributed substantially to salmonid harvest. Walleye *Sander vitreus* (805k fish) and Yellow Perch *Perca flavescens* (562k fish) were the most harvested species. Several historical estimation issues for Lakes Michigan, Huron, and Erie were identified and corrected to ensure consistency in long-term analyses. From 2000 to 2025, fishing effort and harvest declined in Lakes Michigan and Huron before stabilizing in recent years, while Lakes Erie and Superior remained comparatively stable. Walleye harvest increased markedly, reaching a time-series high in Lake Huron in 2025, whereas Yellow Perch harvest declined substantially from early-2000s levels across all lakes, with sustained decreases in Lakes Michigan and Huron and recent lows in Lake Erie. These results underscore the scale and changing dynamics of Michigan's recreational fisheries and highlight the essential role of SASP in supporting effective, long-term fisheries management.

Introduction

The Michigan Great Lakes and their connecting waters support diverse and economically significant recreational fisheries, valued at an estimated $3.9 billion (Great Lakes Fishery Commission 2022). Effective management of these fisheries requires a clear understanding of how fish stocks respond to angling pressure and how different stocks contribute to overall harvest. The long-term sustainability of these fisheries depends on management decisions informed by accurate data on stock status, and fisheries and ecosystem dynamics. Fisheries dependent and independent data are both essential for stock assessment and fisheries management. When combined with fish marking studies, they help determine population status, stock distribution, movement patterns, and contributions to recreational harvest.

The Statewide Angler Survey Program (SASP) of the Michigan Department of Natural Resources (MDNR) Fisheries Division has conducted creel surveys and utilized the charter boat reporting systems for decades to provide fishery dependent data (Rakoczy and Svoboda 1995; Su and Clapp 2013; O'Keefe et al. 2015; Su and Liu 2025). Its primary objective is to collect data and maintain a continuous record of fishing effort, catch (including harvest and release), species composition, and biological data. These data support the development and refinement of decision support tools such as stock assessment models that guide management strategies for Great Lakes fisheries.

Prior to 1990, creel surveys collected data from both recreational anglers and for-hire charter fishing operations (Rakoczy and Svoboda 1995). Legislation enacted in 1989 required charter operators to report catch and effort directly to MDNR (Rakoczy and Svoboda 1993). Therefore, creels surveys have focused exclusively on non-charter fishing since 1990. Unlike charter reporting, which involves straightforward data submission and summarization, creel surveys rely on a complex statistical survey design and estimation methods to provide robust and representative information to assess the sport fishery (Su and Liu 2025).

In recent years, data collection obligations directly outlined in the 2023 Great Lakes Fishing Decree (U.S. District Court 2023) have become a major driver in the SASP survey design and creel coverage strategies. These data support co-management obligations under the Great Lakes fisheries interjurisdictional governance framework, ensuring that effort and harvest estimates meet monitoring needs of partner agencies. In particular, they inform Lake Trout *Salvelinus namaycush* and Lake Whitefish *Coregonus clupeaformis* stock assessment models, which are essential decision-support tools for co-management with tribal governments.

This report summarizes 2025 calendar-year results from both creel surveys and charter reporting for Michigan's Great Lakes recreational fisheries, covering Lakes Michigan, Superior, Huron, and Erie. It also examines historical trends of the recreational fisheries from 2000 to 2025 to provide a comprehensive view of the fishery dynamics. During compilation, several issues were identified with historical estimates for specific lakes and years; these have been corrected, and updated estimates are presented herein.

Methods

Creel Survey Methods

Creel surveys are onsite angler surveys for the purpose of estimating total fishing effort and catch (Pollock et al. 1994; Malvestuto 1996). In creel surveys, two types of fisheries data were usually collected: angler interviews for catch-rate estimation and angler counts for effort estimation. Biological data for key management species—including length, weight, and aging structures such as scales, otoliths, and maxillae—were also collected for stock assessment but are not summarized in this report. Creel survey methods refer to the approaches used to contact anglers for information about their fishing trips and to make fishing effort counts. Among the contemporary creel survey methods, the most widely used are the roving-access and aerial-access methods. These two methods have been traditionally utilized by Michigan to survey recreational fisheries because of their flexibility and robustness (Fabrizio et al. 1991; Su and Clapp 2013; Su and Liu 2025). A bus-route creel survey method was found by Su and Liu (2025) to be a viable alternative to the aerial-access method that is currently used in Michigan. Therefore, since 2023, this method has been used for the creel survey of Lake Erie (Su and Liu 2025). Furthermore, since 2023, the bus-route method has been explored as an alternative approach for the traditional aerial-access method currently used in Saginaw Bay.

Traditional creel survey methods

In traditional roving-access and aerial-access creel surveys, anglers or angler parties were interviewed at the completion of their fishing trips at boat launches, marinas, piers, and along the shoreline. During each interview, clerks recorded interview location and fishing mode (boat, shore, pier/dock, ice - no shanty, or ice - shanty) and inspected the angler's catch to identify and count harvested fish by species. Clerks also asked anglers where they had fished, the start and end times of their trip (dock-to-dock time for boat anglers and lines-in to lines-out for shore and pier anglers), their target species, the numbers of fish released by species, and the number of fishing trips completed or planned for that day. These trip-level data were required for the traditional creel estimation of fishing effort, harvest, and release.

Catch data collection by the SASP has undergone two major phases since 1985. From 1985 through 1996, only harvest (kept catch) was recorded. Beginning in 1997, data on fish caught and then released were added, and both harvest and release data were collected through 2025.

Demographic information (age, sex, and ZIP code) was recorded for one randomly selected angler in each party. Additional information—including angling method (casting, still-fishing, trolling, jigging, etc.), number of lines fished, type of bait used (natural, artificial, or both), and how frequently the party had fished the site in the preceding 30 days (categorical response)—was also collected for use in supplemental analyses not directly associated with traditional creel estimation. All data were recorded by creel clerks on standardized angler interview forms.

Counts were made of individual anglers or angler parties. Two types of counts were utilized: instantaneous (or progressive) and interval (Fabrizio et al. 1991; Pollock et al. 1994; Lockwood et al. 1999; Su and Liu 2025). Instantaneous counts were employed when all actively fishing anglers in a sample area could be observed quickly at one or a few vantage points (Lockwood et al. 1999). For example, counts of anglers or parties fishing on a pier or along a short section of shoreline qualified as instantaneous counts. In larger fishing areas, progressive counts were

conducted as the creel clerk roved through the area; each subsection was viewed instantaneously, even though completing the full count required additional time (Pollock et al. 1994).

Interval counts were used when all boat anglers traveled through a port and left the clerk's view after entering a fishery (Fabrizio et al. 1991; Lockwood et al. 1999). In Lake Michigan, anglers usually trailer their boats to a port or moor their boats at a port. Wave action, steep bluffs, and limited public land restrict access to areas between ports (Lockwood and Rakoczy 2005). In such cases, boats were counted as they departed the port and entered the lake during a defined interval (e.g., a 30-minute period; Fabrizio et al. 1991). More detailed descriptions of count types and their applications are provided in Su and Liu (2025).

Most fishing-effort counts were conducted from the ground by creel clerks at randomly selected times. Instantaneous or progressive counts made from airplanes of boats, pier, and shore anglers were used only when ground counts were not feasible, such as areas with many private access points or restricted access.

Air flights were used to conduct fishing effort counts in 2025 on Saginaw Bay and the area defined as the Les Cheneaux Islands in northern Lake Huron. A local flight service was contracted to make aerial counts around Saginaw Bay and the MDNR Forestry Division was responsible for flights around the Les Cheneaux Islands. For the Saginaw Bay counts, one flight was made at randomly selected starting times and locations on each of the four scheduled days each week (two weekend days, and two randomly selected weekdays). For the Les Cheneaux Islands, one flight was made on each of the scheduled days in which the clerk worked in the survey area. All effort counts, whether accomplished from the ground or air, were recorded on count data forms by creel clerks or pilots.

Bus-route creel survey method

The bus-route method differed from the traditional access-point method in that the creel clerk covered multiple access sites per shift instead of only working at one access site (Su and Liu 2025). This method linked multiple access sites into a route, which allowed one clerk to cover all sites on the route per shift. The clerk followed a timed schedule, interviewing anglers at each stop. Start time, location, and route direction were randomized daily to ensure representative sampling across all angling hours. The bus-route survey method was used in 2025 for Lake Erie to focus on boat fisheries.

Creel Survey Design

Recreational fisheries in Michigan's Great Lakes operate across most waters and extend over many months. Given the broad spatial and temporal scope of these fisheries, complete censuses were not feasible. Instead, Michigan relied on sample-based creel surveys to efficiently gather data while reducing time and costs. These surveys used a complex, stratified, multi-stage random sampling design (Fabrizio et al. 1991; Su and Clapp 2013; Su and Liu 2025). The target population (i.e., the fishery) was first stratified by spatial and temporal factors such as fishing area, month, and day type (weekday versus weekend or holiday) to increase precision and reduce bias. Post-stratification by fishing mode and species further improved accuracy.

Sampling occurred in multiple stages. First, days were randomly selected within each stratum. Each sampled day was subsequently divided into two periods (e.g., early period from 7:00 to 13:30, late period from 13:30 to 22:00), and one period was randomly selected as the creel clerk's work shift. During these shifts, clerks counted anglers and interviewed parties

completing trips. In Michigan, three weekdays and both weekend days were scheduled weekly for most surveys, and each sample day had an eight-hour work shift. When survey sites required lengthy travel, staff were scheduled to work two weekdays plus both weekend days each week, with each shift lasting ten hours. If a clerk covered multiple creel sites, one site was randomly chosen per shift.

Creel clerks were permanent seasonal employees who were recalled annually and trained onsite by the SASP staff and their direct supervisors. An annual professional training was also provided for the clerks. Both interview and count data were recorded on paper forms and entered into the SASP Data Collector application, which incorporated numerous data validation checks to reduce data entry errors. Monthly Quality Assurance/Quality Control procedures, such as confirming work areas, count times, and missing, changed, or anomalous data or values, ensured data integrity before harvest and effort estimates were generated.

Creel Survey Areas and Survey Seasons

For creel surveys, each lake was divided into creel sites (typically associated with ports), which represent areas where anglers commonly fish, such as nearshore zones, ports, shoreline stretches, or open-water areas (Figure 1, Appendix 1, Figure S1). Supplementary figures are labeled as S1, S2, etc., and can be found in the Supplementary Materials section links below. Surveys were generally conducted at access points by creel clerks and, in some cases, supplemented with aerial observations.

The spatial units used for management decision-making—individual Great Lakes or Great Lakes Management Units—are much larger and encompass multiple creel sites. Consequently, creel survey data collected at individual sites were aggregated and reported at the scale of each Management Unit or at the lake-wide scale (Figure 1, Appendix 1, Figure S1).

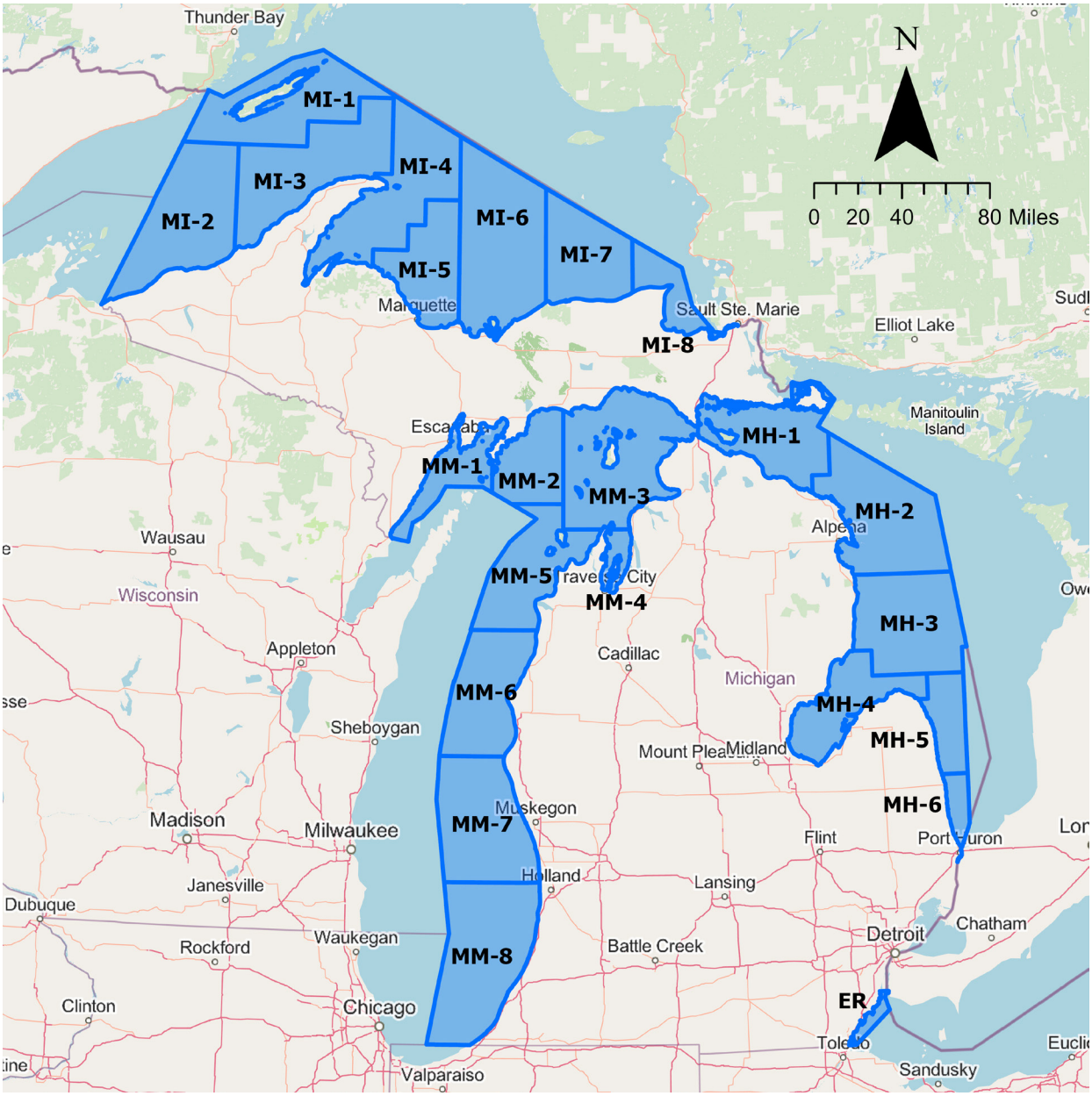

Figure 1. Map of the Michigan waters of the Great Lakes and their management units.

Survey coverage at ports varied annually (Figure S1) due to budget and logistical constraints and fishery management priorities. In most years, creel surveys included two distinct seasons: winter ice fishing from January through March and open-water fishing from April through October. Regular winter surveys in 2025 were conducted at Little Bay de Noc on Lake Michigan; Keweenaw Bay, Marquette, and Au Train on Lake Superior; and Saginaw Bay and Les Cheneaux Islands on Lake Huron. Regular open-water surveys in 2025 ran from April to October at designated fishing sites on Lakes Michigan, Superior, Huron and Erie.

Additional early-season, open-water surveys were conducted in March 2025 at the ports of Frankfort, Manistee, Ludington, Muskegon, Grand Haven, South Haven, and St. Joseph on Lake Michigan, and Alpena (Thunder Bay River) and Oscoda (Au Sable River) on Lake Huron. Late-season surveys were also conducted in November 2025 at Manistee, Ludington, Muskegon, and Whitehall on Lake Michigan, and Alpena (Thunder Bay River) and Oscoda (Au Sable River) on Lake Huron.

2025 Creel survey issues and irregularities

There were several creel survey issues and irregularities in 2025, including:

- Lake Michigan
    - The Charlevoix and Petoskey staff member volunteered for the Isle Royale creel survey from June to August. Because of this, a limited-term staff member was hired to backfill this position. There was some reduced or missed survey coverage during the transitional time.
    - The Grand Haven and Muskegon staff member sustained an injury, causing an extended absence. This led to reduced coverage in April and missed portions of May and June.
- Lake Superior
    - The Keweenaw Bay staff member accepted a new position, resulting in a reduced schedule in March (winter survey) and missed coverage during April and the first half of May (open-water survey).
    - Munising Bay: The position was vacant at the outset of the 2025 survey season. Delays in the hiring process resulted in the winter survey (February–March) not being conducted. The position was subsequently filled in April, and the open-water survey was completed as scheduled.
    - Isle Royale: In coordination with the National Park Service, the SASP conducted a creel survey in the waters surrounding Isle Royale for the first time since 1998.
- Lake Huron
    - Two staff members—one assigned to Rockport and Alpena, and the other to Tawas and Au Gres—volunteered to conduct the Isle Royale creel survey from June through August. As a result, two limited-term employees were hired to backfill their positions. There was some reduced or missed survey coverage during the transitional time.
- Lake St. Clair
    - An open-water (April–October) creel survey of Lake St. Clair was planned. However, the Lake St. Clair staff member resigned after an extended absence at approximately two months into the season. Due to the timing, the remainder of the survey season was canceled. Because most months were missed and seasonal creel estimates could not be made, results pertaining to Lake St. Clair have been excluded from this report.

Estimation Methods of Creel Surveys

Estimation of fishing effort, catch rate, and catch for both the traditional (roving-access and aerial-access) and bus-route creel surveys was first performed separately within each stratum (defined by fishing site, month, day type, fishing mode, and species) based on multistage probability sampling theory (Su and Liu 2025), then monthly and seasonal estimates of fishing effort and catch were calculated by aggregating the stratum estimates.

Traditional creel survey estimation

Effort was estimated by calculating daily effort from counts, averaging across sampled days, and expanding to the full stratum. Catch estimation used either a daily estimator or a multiple-day estimator (Lockwood 1997; Lockwood et al. 1999; Su and Clapp 2013). The daily estimator applied daily catch rates and effort to compute daily catch, which was then expanded to the stratum. When interview and count days were misaligned or only one count was made for a fishing mode in a shift, the multiple-day estimator was used, which pooled the counts and/or interviews of the stratum to calculate a single effort and/or catch rate, and multiplied the catch rate by stratum effort to obtain stratum catch (Lockwood et al. 1999; Su and Clapp 2013; Su and Liu 2025).

Bus-route creel estimation

Daily effort and catch were calculated directly from interview data using the bus-route estimation procedure described in Su and Liu (2025). Both the bus-route method and the roving or aerial-access methods ultimately used the same aggregation procedure to generate stratum-level and seasonal estimates (Su and Liu 2025).

Summary Statistics for Creel Surveys

Fishing effort was expressed as angler hours, angler trips, or angler days. Catch was expressed as harvest (fish caught and kept), release (fish caught and released), or total catch (fish caught). Sampling error for the effort and catch estimates was quantified as two standard errors (2SE). Applying ±2SE yields an approximate 95% confidence interval for the corresponding estimates. To review detailed 2025 creel information, see Supplementary Materials section links below.

Creel Estimates Databases

Detailed creel survey estimates by year, month, fishing site, fishing mode, and species can be accessed on the MDNR Fisheries Division SASP webpage: Creel Clerks & Angler Surveys (https://www.michigan.gov/dnr/managing-resources/fisheries/creel).

Historical Estimate Corrections

In recent years, errors were identified in historical interval count recording for Lake Michigan and aerial count procedures for Lakes Huron and Erie. A simulation study also revealed incorrect fishable-hour assumptions for Lake Erie (Su and Liu 2025). These issues were corrected, and all affected estimates were recalculated for this report. Brief descriptions of the corrections are given here. Detailed reports of the Lake Michigan and Lake Erie correction methods are provided in the Supplementary Materials section links below.

Correction of Lake Michigan interval count data

Interval counts were incorrectly recorded as instantaneous counts for 32 site-years of Lake Michigan creel surveys (Table A3). This error resulted in substantial underestimation of fishing effort, harvest, and catch. The affected sites included Manistee (site 128) for the years 2000–2024, Onekama (site 127) (Appendix 1) for 2015–2024, and several other sites between 2009 and 2019. The interval count data were corrected, and estimates were recalculated using the appropriate methodology. Updated results have been integrated into the creel estimates database to ensure accuracy.

Correction of Saginaw Bay creel estimates (2009–2022)

Saginaw Bay creel surveys employed the aerial-access method to obtain aerial boat counts and access-site interviews. For the 2009–2022 period, original creel estimates for boat fishing were produced under the assumption that aerial counts included both fishing and non-fishing vessels. Consequently, a non-fishing boat ratio adjustment was applied during estimation. A later review confirmed that the pilot conducting the aerial surveys recorded only boats that appeared to be actively fishing. This meant the adjustment was unnecessary and resulted in systematic underestimation of fishing effort and catch. To correct this error, all boat-fishing creel estimates for Saginaw Bay from 2009 through 2022 were recalculated without the non-fishing boat ratio adjustment. The corrected estimates have now been incorporated into the creel estimates database.

Re-estimation of Lake Erie creel data (1986–2025)

Annual aerial-access surveys were conducted for the Michigan waters of Lake Erie from 1986 to 2022. Since 2023, the bus-route method has been used for the creel survey of Lake Erie. From 1986 to 2025, changes in survey site configurations, sampling protocols, and estimation techniques introduced inconsistencies that rendered historical estimates incompatible across years. To standardize these data, a comprehensive re-estimation was performed during Fall 2025 using the current estimation program (*MiCreel Estimator)* of Michigan's SASP and methodological improvements documented in Su and Liu (2025). This process ensures that all Lake Erie creel estimates are based on a consistent analytical framework, improving comparability and reliability for long-term trend analysis.

Charter Boat Reporting

Prior to August 1989, the charter-boat fishing mode was included in the creel surveys (Rakoczy and Svoboda 1995). Following legislative changes in Michigan in 1989, charter boat operators were required under MCL 324.44508 to report their clients' catch and angling effort to the MDNR on a monthly basis. As a result, charter boats were no longer covered by creel surveys after 1989, and charter harvest and effort have been documented through the charter reporting system since that time. To review detailed charter reporting data, see Supplementary Materials section links below.

In 2024, MCL 324.44508 was amended and required charter operators to submit reports at an increased frequency. The current statute requires charter operators to submit twice-monthly trip reports that include the date of the trip, start and end times, number of anglers, the Great Lakes grid fished, and detailed catch information such as harvest, releases, and target species. The requirement applies only to vessel-based charter fishing. Similar to creel data, charter data were also aggregated and reported at the scale of each Management Unit or at the lake-wide scale

(Figure 1, Appendix 1, Figure S1). These data are intended to census the licensed charter fishery operating in Michigan's Great Lakes waters. Although the system provides comprehensive coverage of the charter fleet, it relies on accurate and complete self-reporting by operators and represents a data stream that is distinct from the recreational creel survey estimates.

Results

2025 Creel Surveys and Charter Reporting

The 2025 creel survey season consisted of two periods: the winter period (January–March) and the open-water period (March–November). During this survey season, a total of 27 creel clerks were deployed to conduct surveys at 84 designated sites across Lakes Michigan, Superior, Huron, and Erie (Appendix 1). Throughout the survey period, clerks completed approximately 21,140 interviews, including 20,340 fishing and 830 non-fishing interviews. In addition, approximately 29,117 counts were recorded, representing the number of times clerks or pilots tallied anglers or angling parties at each survey site by fishing mode. Total counts were comprised of 24,648 ground-based counts across all regions and 4,469 aerial counts conducted over Saginaw Bay and the northern Lake Huron region. Beyond interviews and effort counts, creel clerks collected 5,899 fish samples (specifically Lake Erie: 775, Lake Superior: 912, Lake Huron: 2,010, Lake Michigan: 2,202) to obtain aging structures (e.g., scales, maxilla, and otoliths) and to record length and weight measurements for biological assessment.

The length of fishing trips averaged across the Great Lakes varied by fishing mode: boat anglers fished an average of 4.87 hours, ice - shanty anglers 5.00 hours, shore anglers 2.43 hours, pier and dock anglers 2.95 hours, and ice - no shanty anglers 3.45 hours. The average party size also varied by fishing mode (i.e., boat 2.2, ice - shanty 1.6, shore 1.6, pier/dock 1.5, ice - no shanty 1.4). The average number of fishing trips taken by anglers was 1.06 trips per day.

During the 2025 fishing season, 667 charter fishing account holders reported completing trips on the Great Lakes waters. This effort produced 20,772 trips and served 82,112 anglers. The mean length of a trip reported by Michigan charter vessels was 5.2 hours.

In the sections that follow, we present the combined creel and charter survey results (unless otherwise noted, see Tables 1 and 2) for the 2025 Michigan Great Lakes recreational fisheries, along with lake specific 2025 recreational estimates and historical trends for key fisheries in each lake. Monthly and seasonal estimates of 2025 fishing effort, harvest, and release by species for each lake are provided in Supplementary Materials section links below.

2025 Michigan Great Lakes Recreational Fisheries

Based on 2025 creel survey estimates and charter reporting, anglers spent over 4.48 million angler hours in Michigan's waters of the Great Lakes (Tables 1 and 2, Figure 2). In total, anglers caught about 3.50 million fish, including about 1.81 million harvested fish and about 1.69 million released fish (Figure 2).

The 2025 recreational fishing activity was dominated by Lake Huron, which accounted for 52% of total angler hours (2.33 million hours) and 52% of total harvest (937k fish with k representing thousands) (Figure 2). Lake Michigan contributed the next largest share of effort (34%) and harvest (26%), while Lake Erie and Lake Superior together comprised the remainder. Release and total catch patterns mirrored effort and harvest: Lake Huron led in both release (973k fish; 57%) and total catch (1.91 million fish; 54%) (Figure 2). Lake Michigan ranked

second in effort, but Lake Erie ranked second in release and total catch due to higher release totals (452k fish), highlighting notable catch-and-release activity in Lake Erie.

Charter fishing played an important role in Lake Michigan, accounting for 17% of effort and 24% of harvest (Tables 1 and 2). Charter fishing contributed modestly to Lake Superior, accounting for 7% of effort and 20% of release (Tables 1 and 2). Charter fishing was less influential on recreational fishing effort and catch in Lakes Huron and Erie, where it accounted for less than 4% of totals.

Table 1. Creel survey estimates (in thousand units) for Michigan's Great Lakes in 2025, including fishing effort (angler hours), harvest (fish kept), release (fish released), and total catch (fish caught). Error bounds are expressed as two standard errors (2SE).

	Effort Estimate	Effort 2SE	Harvest Estimate	Harvest 2SE	Release Estimate	Release 2SE	Catch Estimate	Catch 2SE
Michigan	1,276	135	362	39	239	25	601	47
Superior	217	20	74	8	13	3	87	8
Huron	2,273	133	888	90	954	112	1,842	144
Erie	366	55	301	71	445	87	746	112
Total	4,133	198	1,624	121	1,651	142	3,276	185

Table 2. Charter fisheries summary statistics (in thousand units) for Michigan's Great Lakes in 2025, including fishing effort (angler hours), harvest (fish kept), release (fish released), and total catch (fish caught).

	Effort	Harvest	Release	Catch
Michigan	264	111	9	120
Superior	17	8	3	11
Huron	54	49	19	68
Erie	14	19	7	26
Total	348	187	39	225

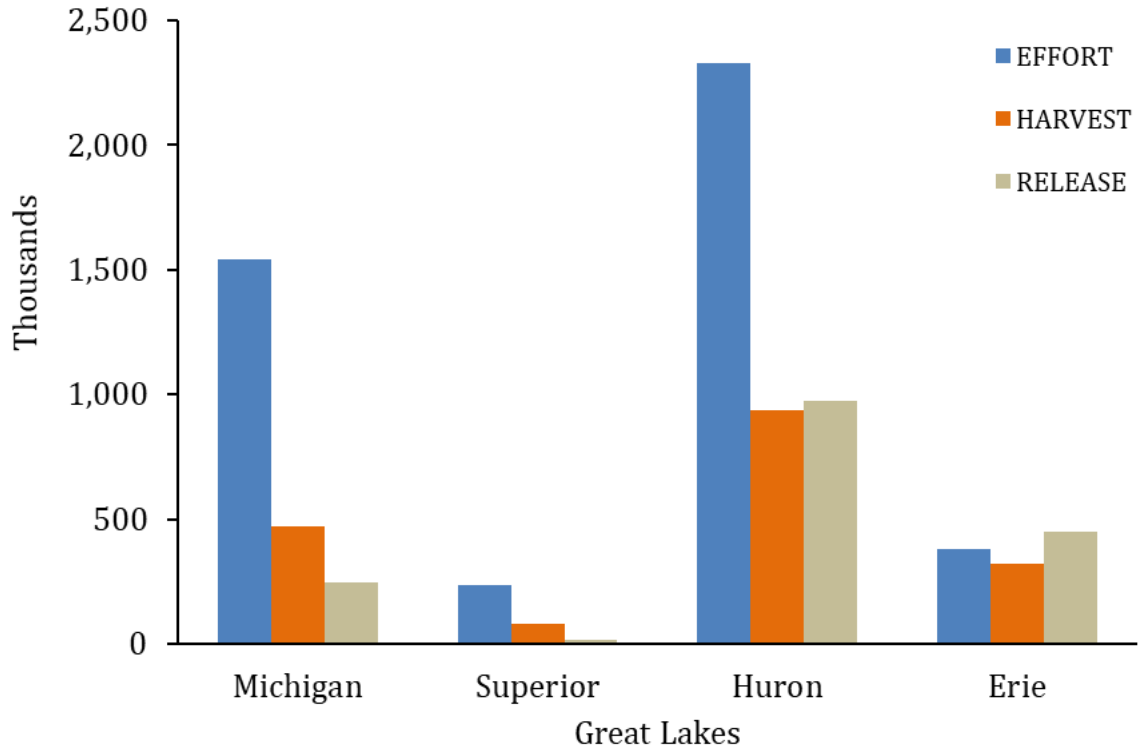

Figure 2. Fishing effort (angler hours), harvest (fish kept), and release (fish released) across Michigan's Great Lakes in 2025.

Walleye *Sander vitreus* and Yellow Perch *Perca flavescens* dominated the harvest in 2025, totaling 805k and 562k fish, respectively (Figure 3). In addition to Walleye and Yellow Perch, anglers harvested an estimated 167k Chinook Salmon *Oncorhynchus tshawytscha*, 113k Lake Trout, 76k Coho Salmon *Oncorhynchus kisutch*, and 28k Rainbow Trout *Oncorhynchus mykiss*.

Yellow Perch dominated the release in 2025, totaling 555k fish (Figure 4). Anglers also released numerous Walleye (400k fish), Smallmouth Bass *Micropterus dolomieu* (208k fish), and Freshwater Drum *Aplodinotus grunniens* (136k fish).

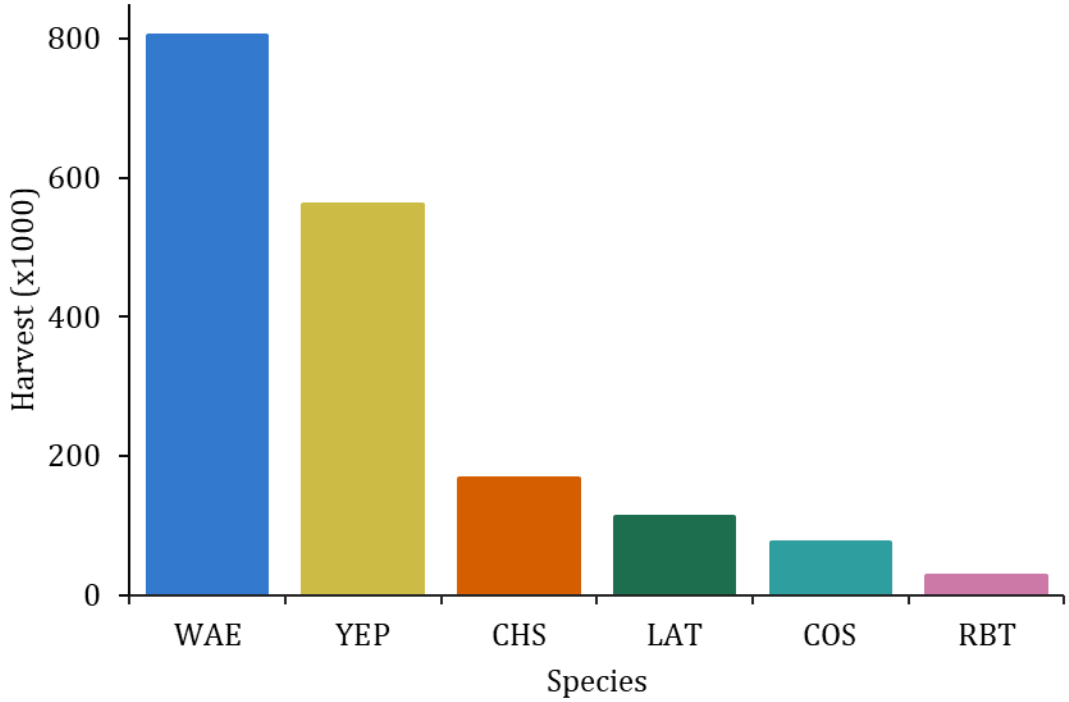

Figure 3. Harvest totals (number of fish) of most harvested species in 2025. Species abbreviations can be found in Appendix 2.

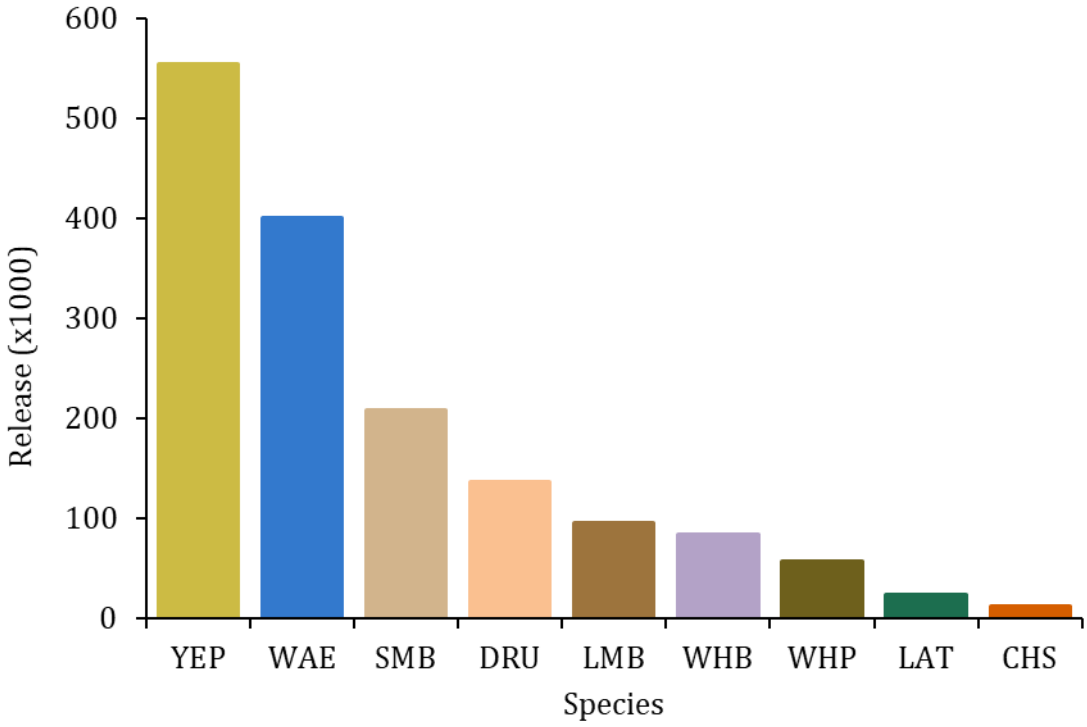

Figure 4. Release totals (number of fish) of most released species in 2025. Species abbreviations can be found in Appendix 2.

Lake Michigan

The 2025 creel survey on Lake Michigan was conducted for winter fishing (January to March) and open-water fishing from March to November (Figure 5 and Figure 6). Charter fishing played a proportionally larger role in Lake Michigan than in the other Great Lakes (Tables 1 and 2). Charter boats contributed greatly to Chinook Salmon (62k charter vs. 98k creel harvest) and Lake Trout harvest (26k charter vs. 17k creel harvest).

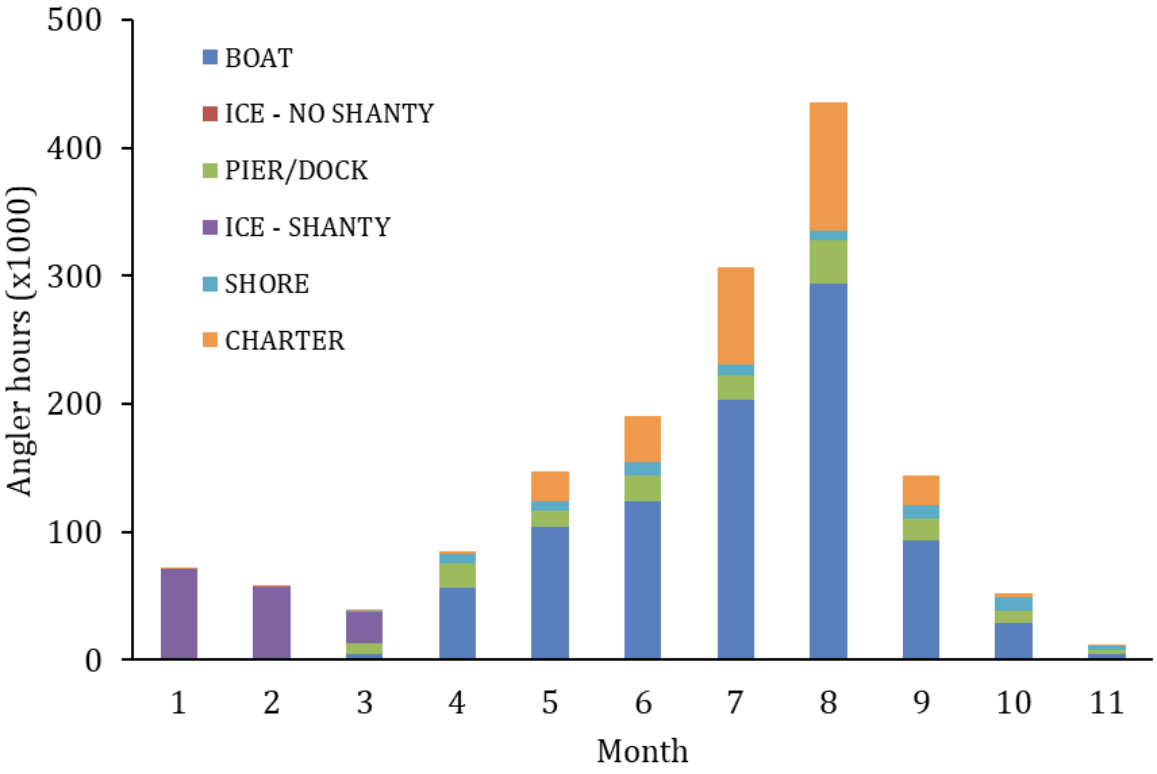

Figure 5. Lake Michigan 2025 fishing effort estimates (angler hours) by fishing mode and month.

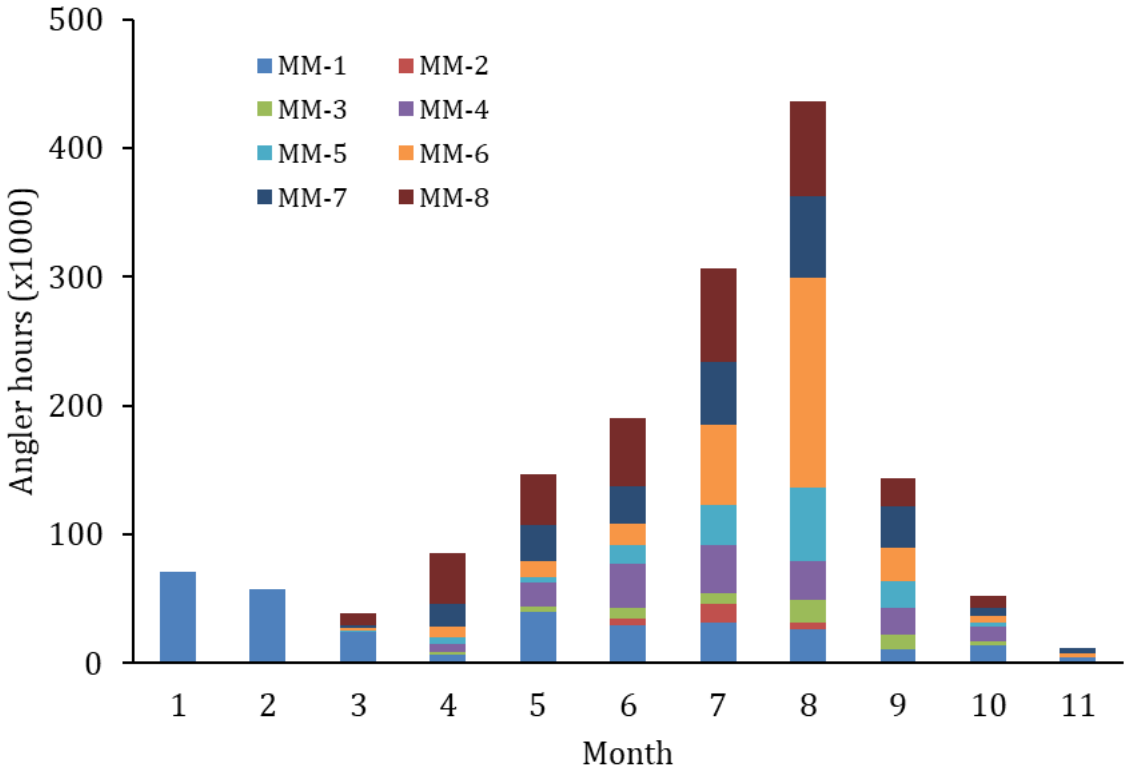

Figure 6. Lake Michigan 2025 fishing effort estimates (angler hours) by management unit and month.

Both fishing effort and harvest in Lake Michigan showed strong seasonal and spatial variability (Figure 5, Figure 6, Figure 7; Figure S2). Effort was dominated by open-water boat fishing, peaking in July and August and remaining minimal in winter (Figure 5). Spatially, effort shifted progressively across management units as the season advanced (Figure 6). Early-season fishing was concentrated in the northern (MM-1) and southern (MM-8, MM-7) units, while midsummer activity moved toward the central units (MM-6, MM-5, and MM-4) that typically support peak boat effort. Only minor effort occurred in the MM-2 and MM-3 units.

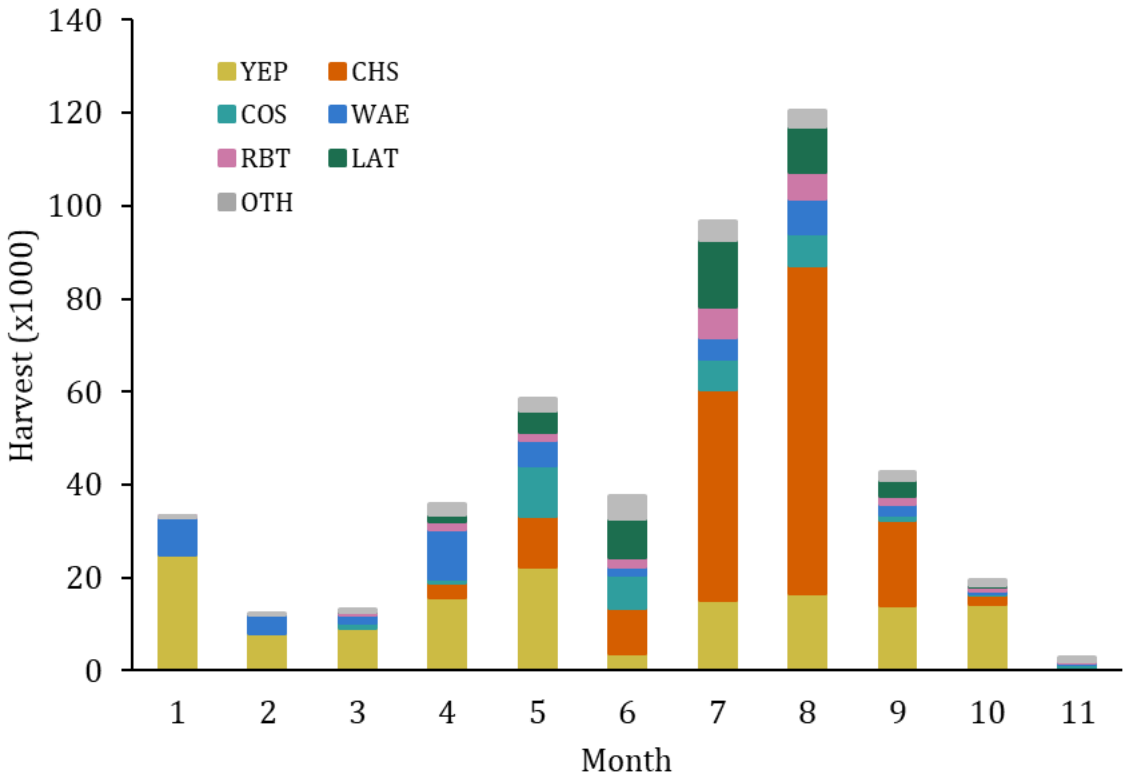

Figure 7. Lake Michigan 2025 harvest estimates (number of fish) by species and month. OTH = combined harvest of all other species not shown individually. Species abbreviations can be found in Appendix 2.

Harvest patterns closely followed these seasonal and spatial trends (Figure 7; Figure S2). Chinook Salmon harvests predominantly occurred in July and August and were spread across several adjacent management units (MM-8 through MM-5 and MM-2) (Figure S2), while Coho Salmon harvest began earlier and extended through summer in MM-8. Yellow Perch harvest remained consistent throughout the season in MM-1 but showed more concentrated periods of targeting in MM-8 (Figure S2). Walleye harvest was restricted to MM-1 and occurred primarily in January, February, May, and June (Figure S2). Fish releases were dominated by Smallmouth Bass, particularly in MM-1 and MM-4, with additional releases of Yellow Perch and various salmonid species (Figure S3).

To place the 2025 results in context, it is helpful to examine historical trends in Lake Michigan's recreational fisheries. From 2000 to 2020, angling effort exhibited a steady decline, followed by stabilization and a slight increase from 2020 to 2025 (Figure 8). Yellow Perch harvest decreased sharply from the high of 529k fish in the early 2000s to about 146k fish in 2025, with intermittent fluctuations throughout the period (Figure 8).

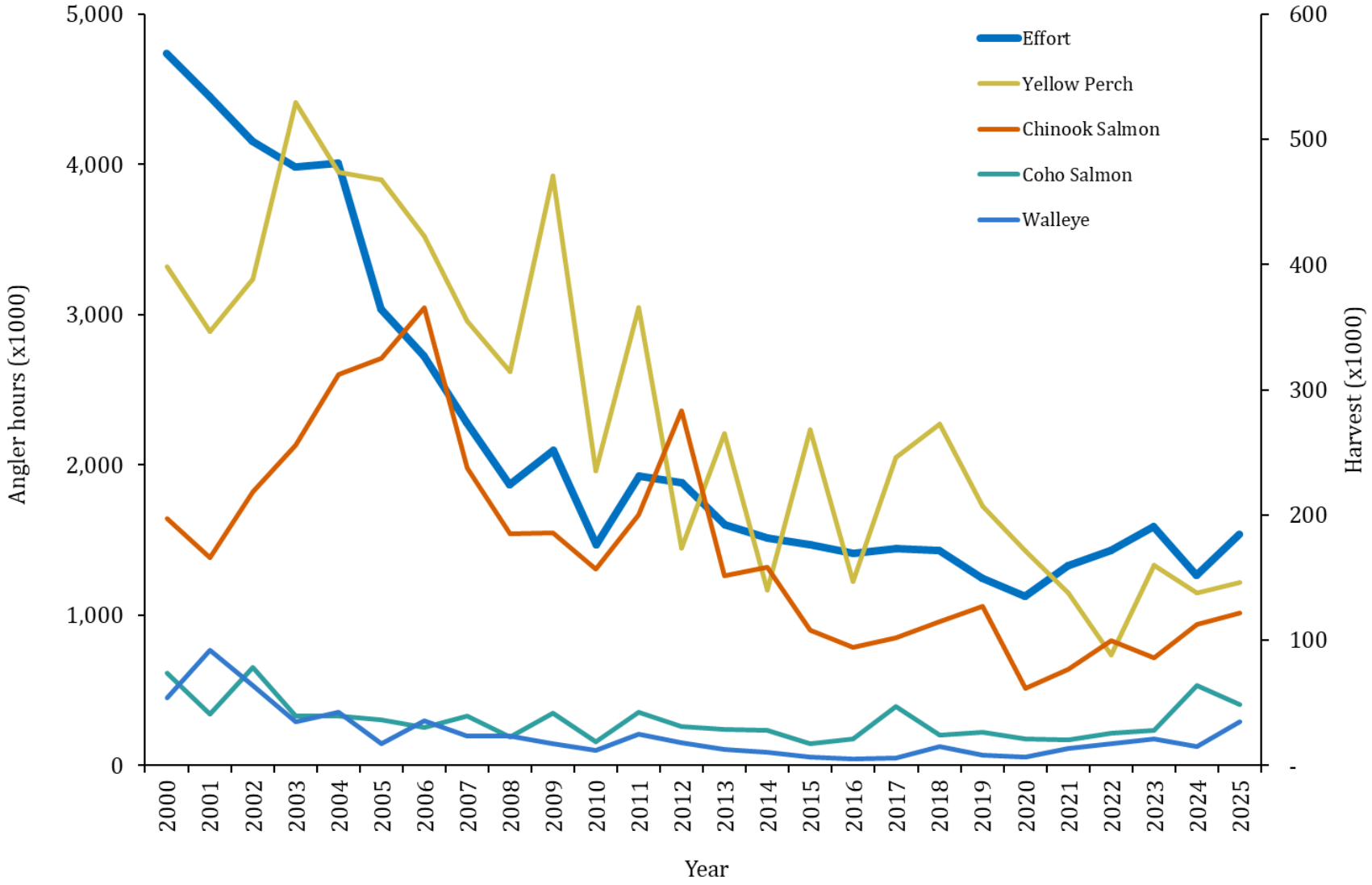

Figure 8. Lake Michigan fishing effort estimates (angler hours) and harvest estimates (number of fish) of four species from 2000 to 2025.

Chinook Salmon harvest increased in the early 2000s, peaked at 366k fish in 2006, and then declined to a low of 62k fish in 2020. Since 2020, Chinook harvest has increased, reaching approximately 122k fish in 2025. Coho Salmon harvest remained relatively low and stable across the time series, though modest increases have been observed since 2020. Walleye harvest was generally lower than that of Coho Salmon in most years but exhibited similar temporal trends.

Lake Superior

The 2025 creel survey for Lake Superior included both winter fishing (February–March in Keweenaw Bay and March in Marquette and Au Train) and open-water fishing (April–October) (Figure 9 and Figure 10). Charter boats made a minor (7%) contribution to the overall fishing effort in Lake Superior with the highest proportional contributions occurring in July (19%) and August (14%) (Figure 9). Charter boat harvest primarily consisted of Lake Trout (5,586 fish, or 19% of total Lake Trout harvest), highlighting their importance in specialized deepwater fisheries.

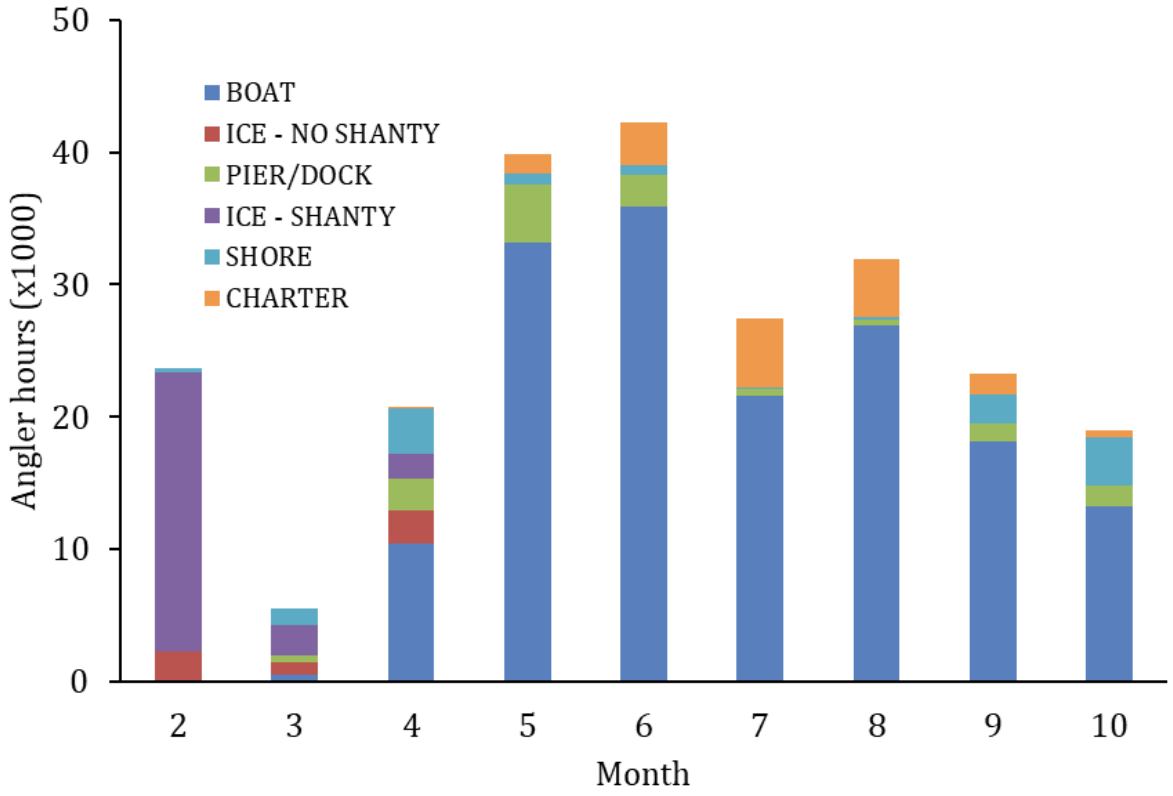

Figure 9. Lake Superior 2025 fishing effort estimates (angler hours) by fishing mode and month.

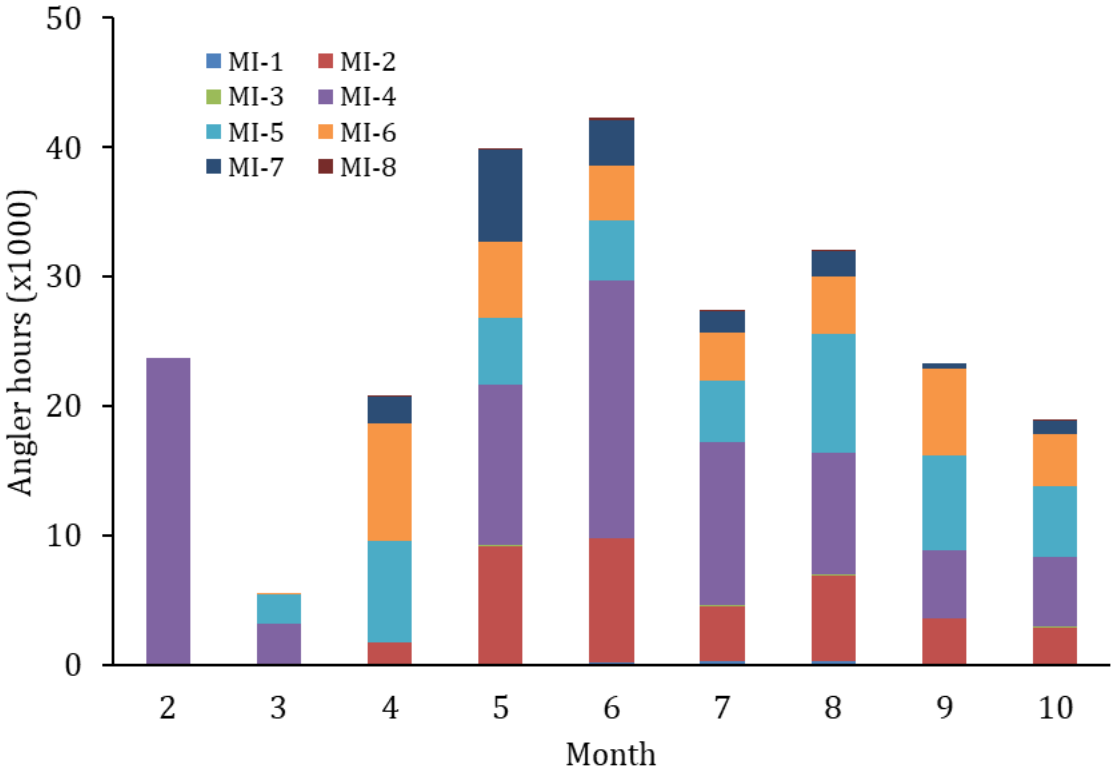

Figure 10. Lake Superior 2025 fishing effort estimates (angler hours) by management unit and month. Management units MI-3 and MI-8 included only charter fishing results because no creel surveys were conducted in these areas. MI-1 reflects only charter data pending finalization of the Isle Royale creel survey results.

Fishing effort in Lake Superior was concentrated in summer boat angling, whereas winter effort was reduced due to missed sampling coverage in Munising Bay in 2025 (Figure 9 and Figure 10). Historically, winter effort in this area was nontrivial; over the past 10 years (2015–2024), the median January–March fishing effort of all modes in Munising Bay was approximately 6,988 angler hours.

Harvest in Lake Superior was dominated by Lake Trout (29,048 fish) and Coho Salmon (23,862 fish), with Siscowet *Salvelinus namaycush siscowet* (8,453 fish) and Lake Whitefish (6,850 fish) contributing secondarily in 2025 (Figure 11). This reflects Lake Superior's cold, oligotrophic environment and its emphasis on native salmonid species. Fish releases were minimal and consisted primarily of salmonids (Figure S4).

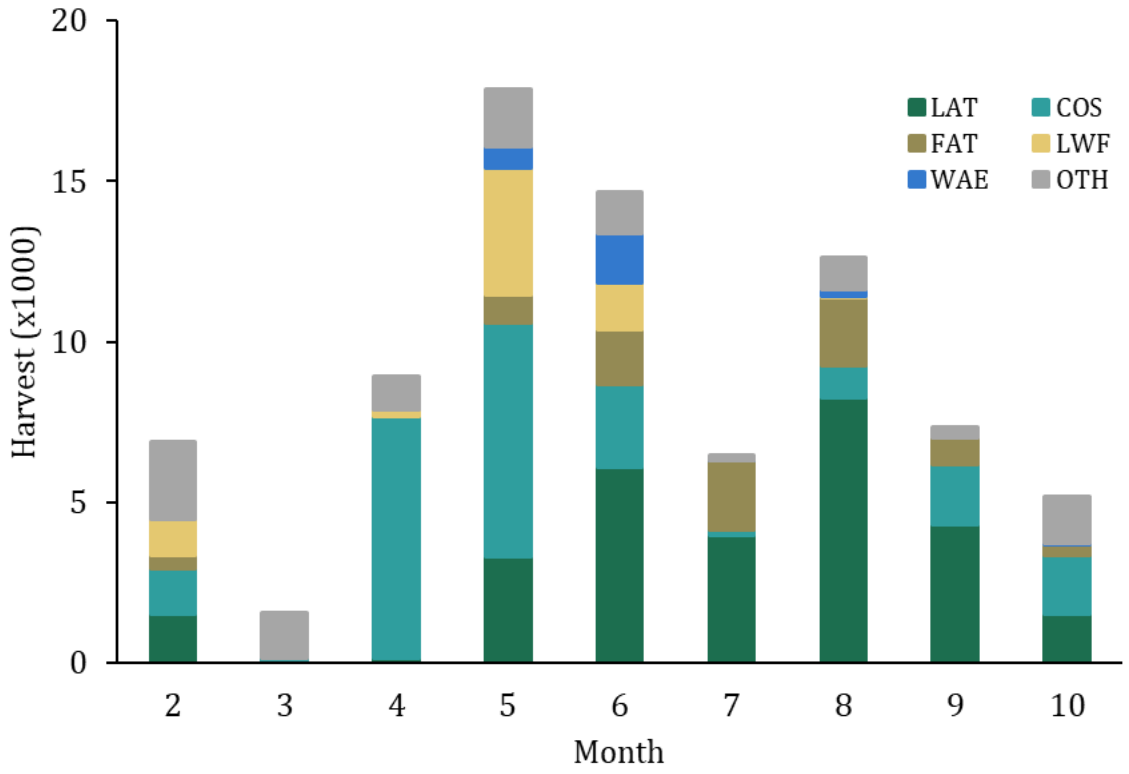

Figure 11. Lake Superior 2025 harvest estimates (number of fish) by species and month. OTH = combined harvest of all other species not shown individually. Species abbreviations can be found in Appendix 2.

A survey of the fishery in waters surrounding Isle Royale was conducted during June–August in 2025 in collaboration with the National Park Service. Preliminary estimates indicate that fishing effort at Isle Royale was higher than at any other main-basin port in Lake Superior during the same period. Lake Trout was the primary species harvested during this survey with additional species harvested including Northern Pike *Esox lucius* and Yellow Perch. A detailed report summarizing the results of this survey will be completed in 2026.

Lake Superior exhibited relatively low fishing effort and harvest throughout the time series compared to the other Great Lakes (Figure 12). Lake Trout harvest was consistently higher than harvest of other species, showing an increasing trend since 2007 along with greater year-to-year variability in recent years. Harvest of Coho Salmon and Lake Whitefish was lower and more variable than that of Lake Trout. Historically, Lake Whitefish harvest exceeded that of Coho Salmon; however, in recent years Lake Whitefish harvest has fallen below Coho Salmon harvest due to declining Lake Whitefish harvest combined with increasing Coho Salmon harvest.

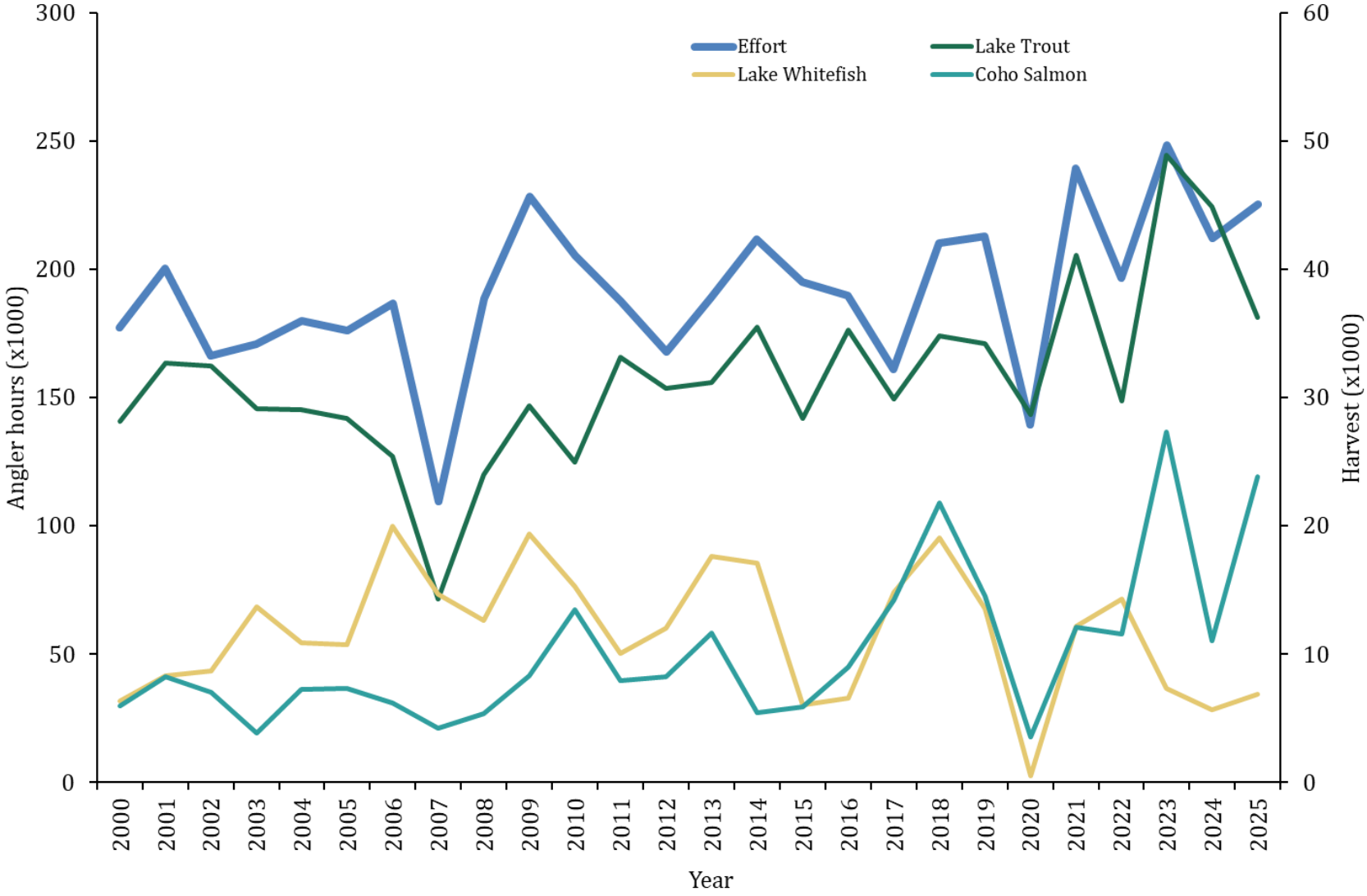

Figure 12. Lake Superior fishing effort estimates (angler hours) and harvest estimates (number of fish) of three species from 2000 to 2025.

Lake Huron

The 2025 creel survey for Lake Huron included both winter fishing (January–March) and open-water fishing (March–November) (Figure 13). Charter activity was relatively minimal, accounting for about 2% of total effort (Figure 13).

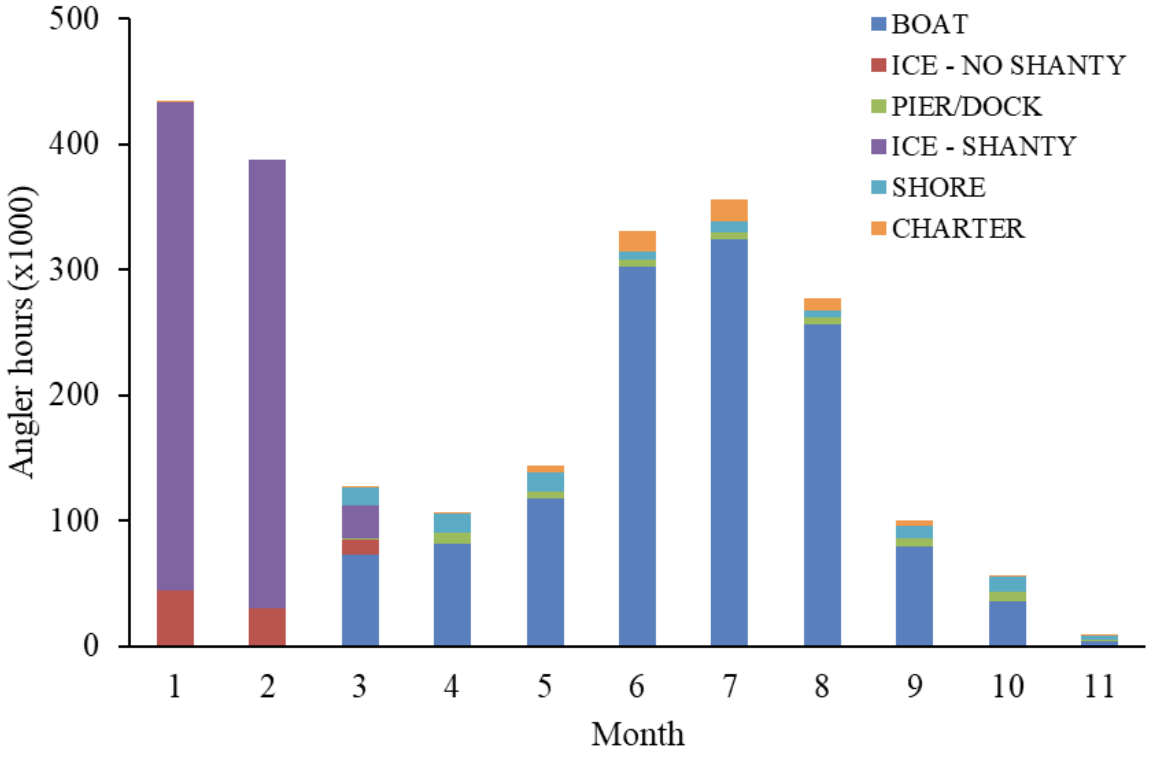

Figure 13. Lake Huron 2025 fishing effort estimates (angler hours) by fishing mode and month.

Fishing effort in Lake Huron was primarily driven by anglers ice fishing while in a shanty and open-water boat fishing, with peak activity occurring during January–February and again in June–August in 2025 (Figure 13 and Figure 14). Saginaw Bay (MH-4) accounted for the majority of effort, contributing approximately 1.84 million angler hours—representing 79% of total fishing effort in Lake Huron and 42% of fishing effort in all Michigan waters of the Great Lakes (Figure 14). The remainder of Lake Huron effort was distributed across the main basin (all management units excluding MH-4).

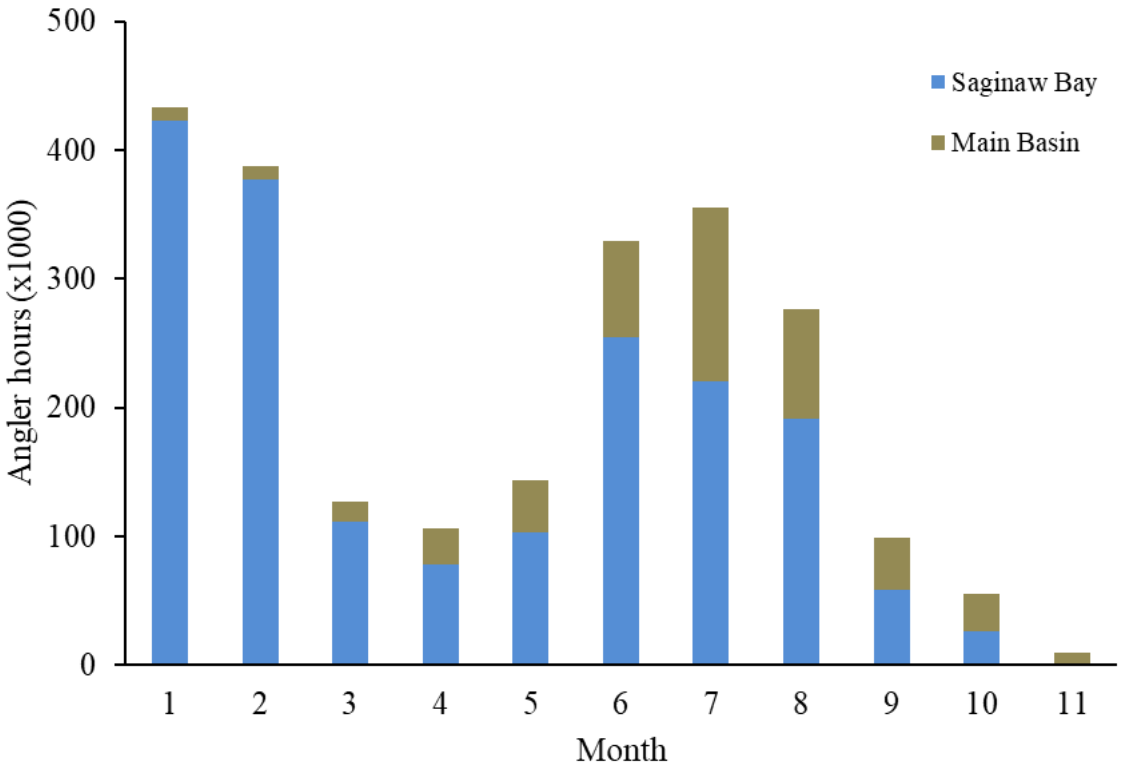

Figure 14. Lake Huron 2025 fishing effort estimates (angler hours) by lake area and month. The main basin included MH-1, MH-2, MH-3, MH-5 and MH-6.

Harvest in the main basin of Lake Huron in 2025 was dominated by Lake Trout during the open-water season, while Yellow Perch comprised the majority of harvest during winter months (Figure 15a).

Harvest was primarily driven by Walleye (approx. 554k fish) and Yellow Perch (approx. 251k fish) in Saginaw Bay. Walleye harvest occurred almost exclusively from April through August, whereas Yellow Perch harvest dominated the fishery in other months (Figure 15b).

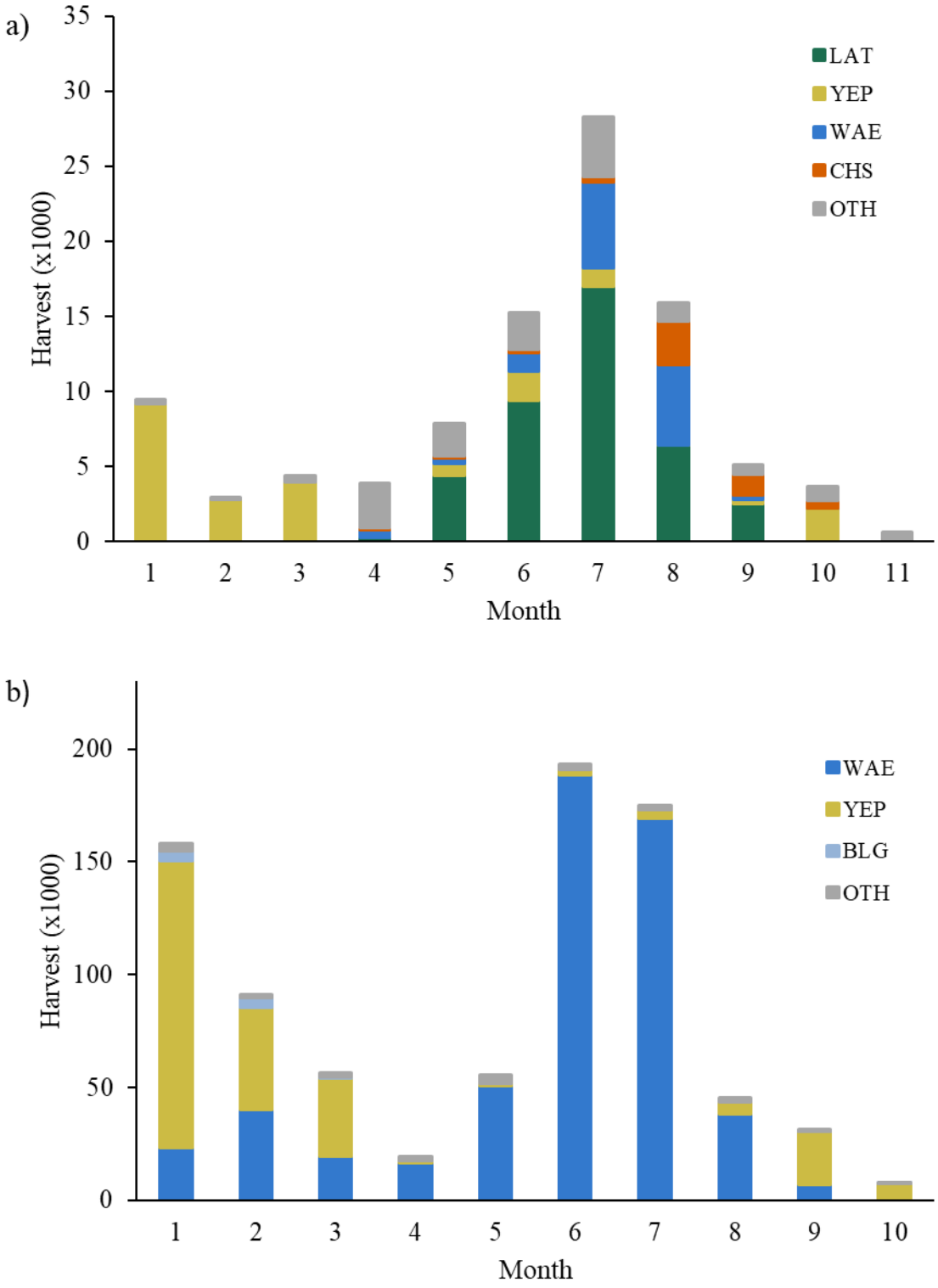

Figure 15. Lake Huron (a) main basin and (b) Saginaw Bay (MH-4) 2025 harvest estimates (number of fish) by species and month. OTH = combined harvest of all other species not shown individually. Species abbreviations can be found in Appendix 2.

Fish releases in Saginaw Bay consisted mainly of Yellow Perch and Walleye during winter, with a mix of species released during other periods (Figure S5).

Lake Huron experienced a gradual decline in fishing effort from 2010 to 2020, followed by sharp increases in subsequent years (Figure 16). The rise in effort between 2020 and 2022 may have been influenced by increased outdoor activity during the COVID-19 pandemic. A strong winter fishery in 2025 (approx. 859k angler hours), which was likely influenced by ice conditions that were more favorable during the 2025 winter, contributed to a substantial increase compared to 2024 (approx. 136k angler hours).

Yellow Perch harvest declined markedly over the time series, fluctuating from roughly 1.0 million fish in the early 2000s to about 276k fish by 2025 (Figure 16). Walleye harvest was considerably lower than Yellow Perch in the early 2000s but converged to similar levels (around 300k fish) between 2007 and 2022. Since 2023, Walleye harvest has surpassed Yellow Perch and reflects the continued recovery of the Walleye population, which has been supported by strong natural reproduction in recent years. The 2025 Walleye harvest (557k fish) was the highest recorded in the time series and represented a substantial increase from 2024 (354k fish).

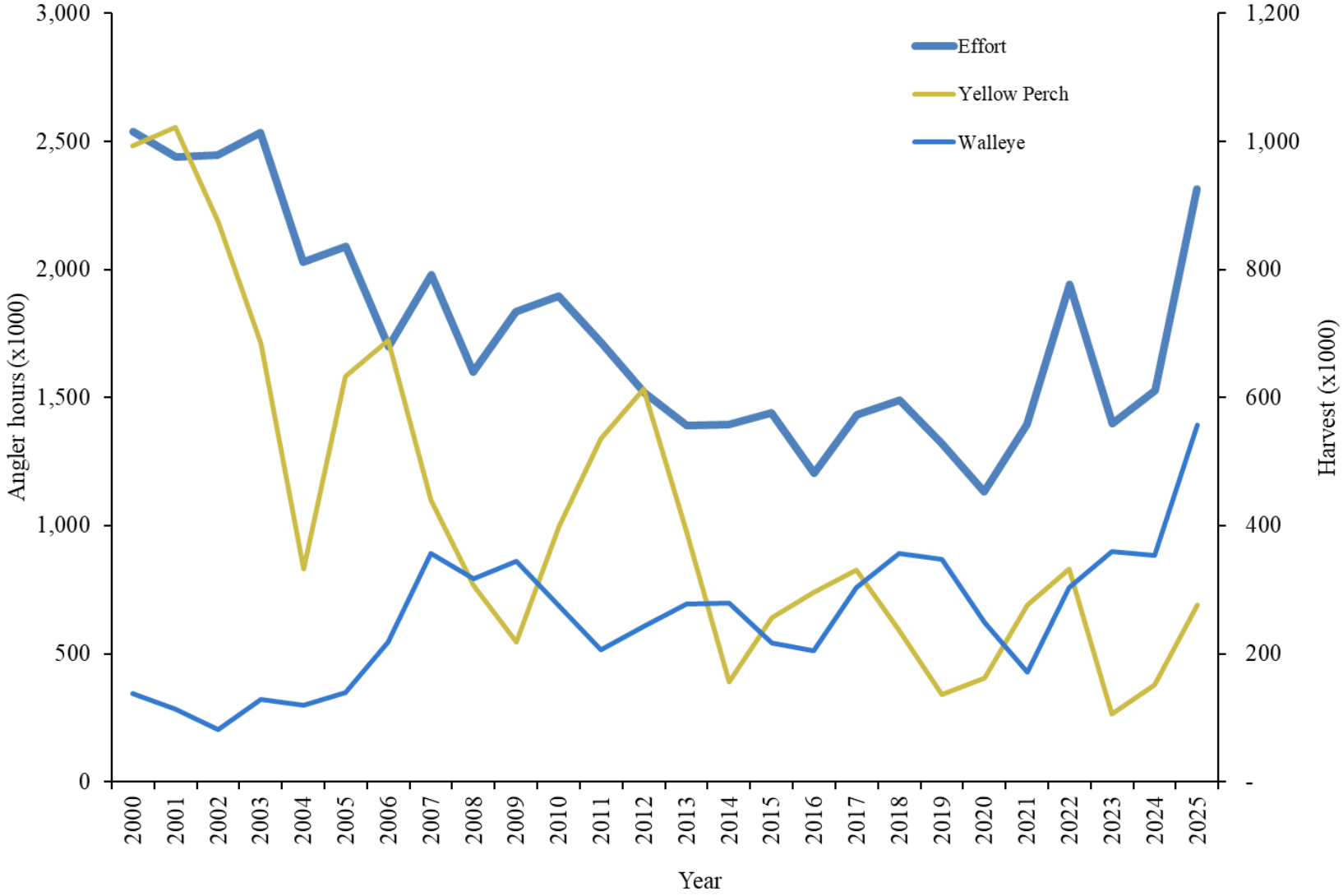

Figure 16. Lake Huron fishing effort estimates (angler hours) and harvest estimates (number of fish) of Yellow Perch and Walleye from 2000 to 2025.

Lake Erie

The 2025 creel survey for Lake Erie concentrated solely on boat fishing between April and November. Shore, pier, and dock fishing were negligible, and therefore excluded from the survey. Charter boat activity was generally minimal (Tables 1 and 2), but charter harvest of Walleye contributed an important share (25%) of the overall Walleye harvest (200k fish).

Lake Erie fishing effort peaked during May through July, with a secondary increase in October (Figure 17). Most of the fishing effort was concentrated in the northern area (defined as the area including sites 702 and 703 (Appendix 1) in Lake Erie, Figure S6) of the Michigan waters of Lake Erie (Figure 1, Figure 17). Harvest patterns were dominated by Walleye in spring and early summer, shifting toward Yellow Perch in late summer and fall (Figure 18). Release activity was substantial, led by Freshwater Drum, Walleye and White Bass *Morone chrysops* in spring, and Yellow Perch in fall, reflecting the mixed-species nature of the fishery (Figure S7).

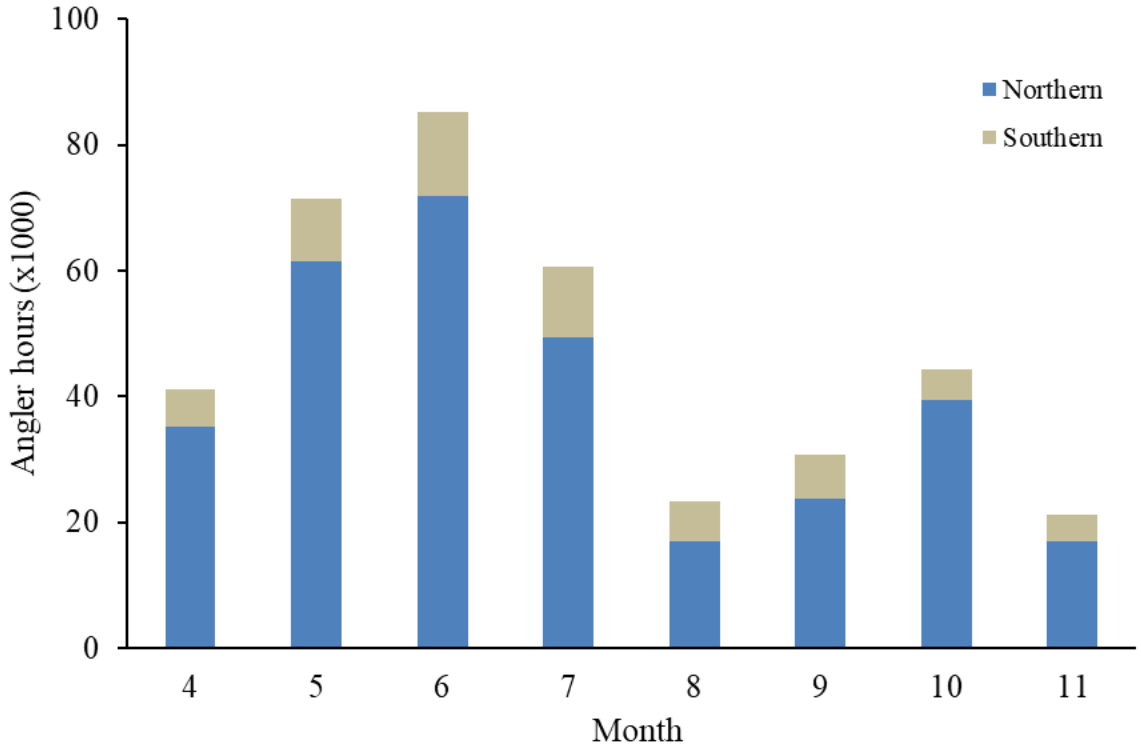

Figure 17. Lake Erie 2025 fishing effort estimates (angler hours) by lake area and month.

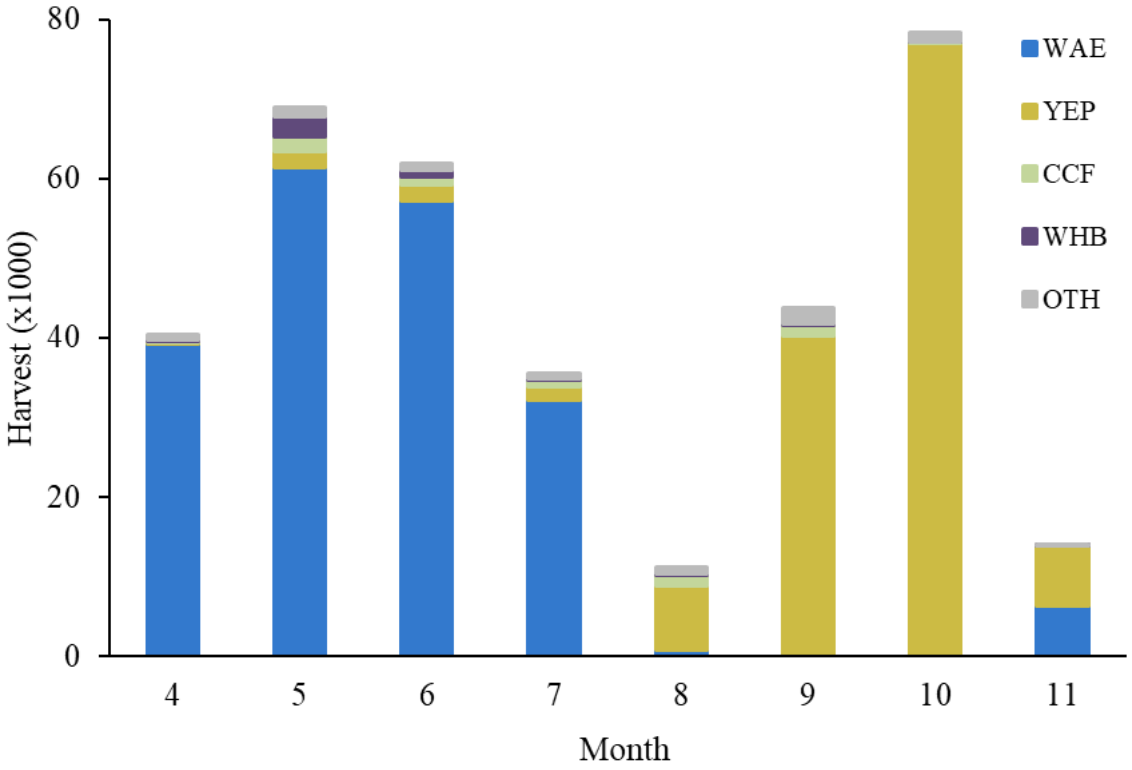

Figure 18. Lake Erie 2025 harvest estimates (number of fish) by species and month. OTH = combined harvest of all other species not shown individually. Species abbreviations can be found in Appendix 2.

Fishing effort in Lake Erie was relatively low compared to the other Great Lakes and varied widely from year-to-year from 2000 to 2017. The relatively low effort is expected because the shoreline of Michigan waters of Lake Erie is substantially shorter than other Great Lakes. In fact, Lake Erie had the highest (4,539) angler hours per kilometer among all Michigan Great Lakes (e.g., Lake Michigan: 829, Lake Superior 158; Lake Huron 1567). Since 2017, fishing effort has been relatively more stable (Figure 19). Yellow Perch harvest exhibited pronounced interannual variability, generally varying around 300k fish but spiking to about 1.5 million in 2016 and 700k in 2017, before declining to roughly 200k fish since 2018 (Figure 19). Yellow Perch harvest reached a low of 138k fish in 2025. These fluctuations reflect variability in Yellow Perch year-class strength and environmental conditions, with episodic peaks resulting in disproportionately high harvests and fishing effort.

Walleye harvest remained below that of Yellow Perch prior to 2018. Since 2018, Walleye harvest has increased to levels (about 180k) comparable to Yellow Perch, with both species fluctuating around 195k fish annually. Walleye harvest reached a recent high of 200k fish in 2025 (Figure 19).

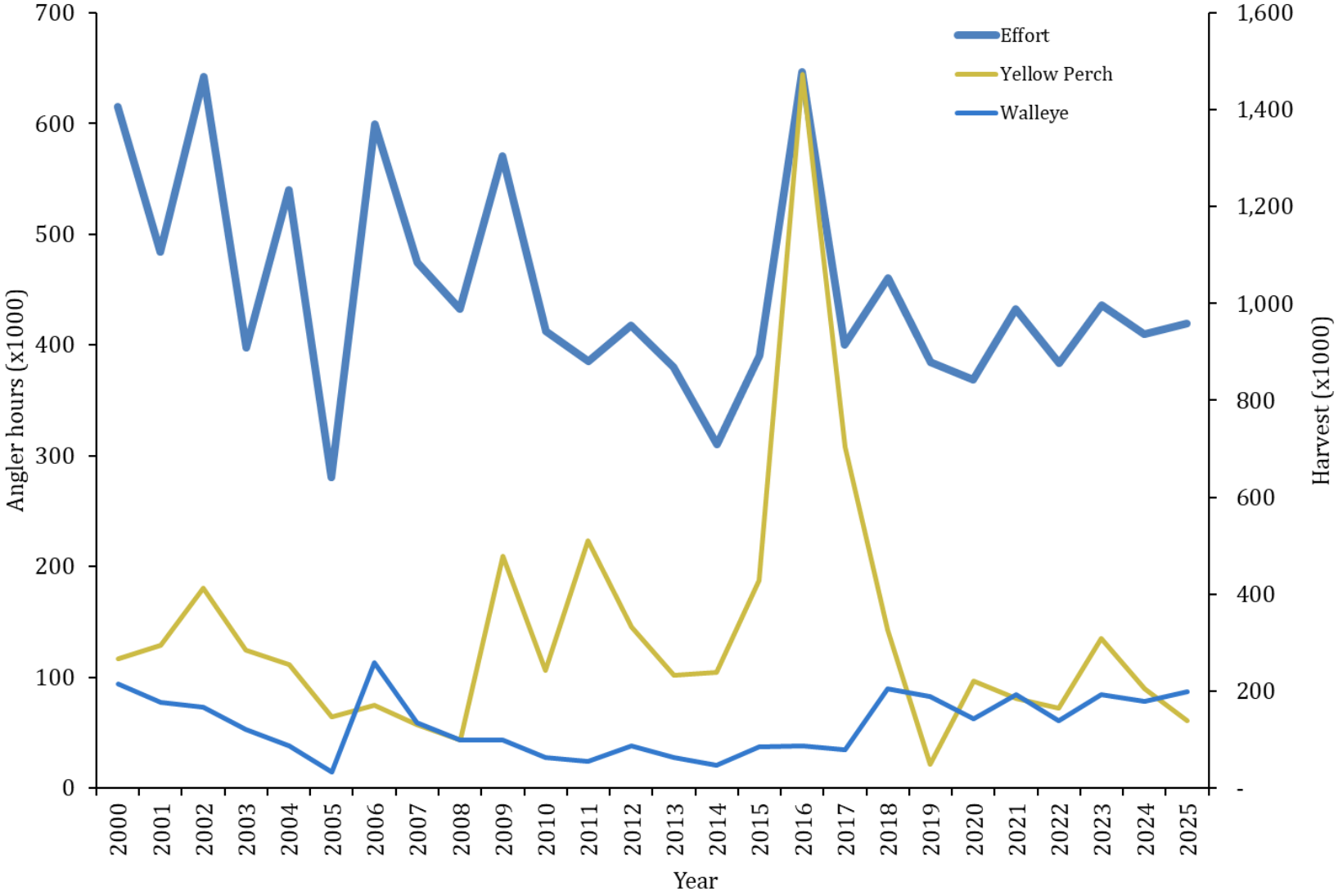

Figure 19. Lake Erie fishing effort estimates (angler hours) and harvest estimates (number of fish) of three species from 2000 to 2025.

Discussion

The Statewide Angler Survey Program continues to serve as a cornerstone for understanding Michigan's Great Lakes recreational fisheries. The 2025 creel survey and charter reporting results reaffirm the program's critical role in providing comprehensive data on angler effort, harvest, and species composition across Michigan's Great Lakes waters.

In 2025, the SASP delivered substantial coverage despite budgetary constraints, staffing transitions and site-level irregularities (e.g., missed winter coverage at Munising Bay; Lake St. Clair cancellation). Notably, historical corrections (Saginaw Bay aerial count assumption, Lake Erie re-estimation, and Lake Michigan interval-count fixes across 32 site-years) have been integrated, improving comparability and quality of creel survey results. Continued Quality Assurance/Quality Control efforts, and consistent bus-route deployments will further strengthen statewide estimates.

Despite recent improvements, challenges in survey efficiency and coverage persist. Although the SASP provides high-quality data, gaps in spatial and temporal coverage—particularly in winter fisheries and less-accessible districts—result in missing data and underestimation of total fishing effort and catch. For example, both Lake Michigan and Lake Superior include two offshore creel survey sites (Lake Michigan: Beaver Island/site 386, Fox Islands/site 461; Lake Superior: Stannard Rock/site 605, Big Reef/site 606) (Appendix 1) that lack a mainland shore component. Consequently, effort counts cannot be recorded for these sites, and the program is unable to generate full estimates. Occasionally, limited interview data may be collected from these areas, offering anecdotal insights into their fisheries.

Addressing these gaps will require innovative and alternative approaches, including leveraging technology (e.g., drones, mobile phone use data, airflight surveys) to enhance data collection. Electronic reporting systems, mobile applications, and automated data validation tools offer promising avenues to improve timeliness and accuracy. Integrating these technologies into routine operations will help modernize the program and reduce reliance on labor-intensive methods.

Charter fishing plays an important but uneven role in Michigan's Great Lakes recreational fisheries. Its influence is the strongest in Lake Michigan, while in Lake Erie, Walleye harvest from charters accounts for an important share of the lake's total catch. Lake Superior charters are most relevant for deepwater species like Lake Trout. These patterns show that charters are vital for access to specialized fisheries and should be factored into management strategies, especially for salmonid and Walleye fisheries where reliance is high.

Historical trends reveal distinct and diverse recreational fisheries dynamics among the Great Lakes. Lakes Michigan and Huron experienced substantial declines in effort and harvest prior to 2020, likely driven by ecosystem disruptions resulting from the proliferation of invasive species (e.g., dreissenid mussels, Round Goby *Neogobius melanostomus)* that caused food web alterations (Su and He 2013; Madenjian et al. 2002; Tsehaye et al. 2014). The 2025 sport fishery underscores the continuing rise of Walleye in Michigan's Great Lakes. Saginaw Bay harvested 554k Walleye, pushing Lake Huron's Walleye harvest to its highest level during the 2000–2025 time series and well above 2024. In contrast, Lakes Erie and Superior have relatively low and variable effort. The episodic spikes in Yellow Perch in Lake Erie reflect recruitment-driven dynamics. These patterns underscore the complexity of Great Lakes ecosystems, where

environmental conditions, invasive species, and management interventions interact to shape fishery outcomes (Fielder and Briggs 2025).

These ecosystem challenges can complicate efforts, such as creel surveys, to understand Michigan's Great Lakes fisheries. Recruitment variability remains a central concern, particularly for percid fisheries in Lakes Erie and Huron which are vulnerable to boom-and-bust cycles. Detecting emerging year-class signals and responding quickly to fluctuations will require robust monitoring and adaptive management frameworks, many of which are reliant on fishery dependent information. Invasive species continue to reshape food webs, altering prey availability and predator dynamics; their impacts must be assessed continuously to anticipate shifts in salmonid and percid productivity and how those variables influence the fisheries.

In conclusion, Michigan's Great Lakes recreational fisheries deliver substantial ecological, economic, and social benefits. Sustaining these benefits requires a strong commitment to long-term monitoring, methodological rigor, and adaptive management. The 2025 results, when considered alongside historical trends, underscore the critical role of the Statewide Angler Survey Program as a primary source of fishery-dependent information for assessing the status of Michigan's Great Lakes fisheries and assessing fish stocks—both essential components of effective fisheries management. Continued investment in data collection and analysis is vital to ensure resilient, productive fisheries for future generations.

Supplementary Material

Supplementary material for creel reports, charter reports, Lake Erie and Lake Michigan correction information, and supplemental figures are available from the MDNR Fisheries Division's online library catalog, FishCat. Links for FishCat and supplementary materials can be found below as well as URL's to accommodate readers viewing a printed version of this article.

- FishCat:
  https://iffr.mlasolutions.com
- Creel reports:
  https://www2.dnr.state.mi.us/publications/pdfs/DNRFishLibrary/FisheriesReports /FR049_supp_material_Creel_Summary_2025.xlsx
- Charter reports:
  https://www2.dnr.state.mi.us/publications/pdfs/DNRFishLibrary/FisheriesReports /FR049_supp_material_Charter_Summary_2025.xlsx
- Lake Erie correction information:
  https://www2.dnr.state.mi.us/publications/pdfs/DNRFishLibrary/FisheriesReports /FR049_supp_material_Erie_Correction.docx
- Lake Michigan correction information:
  https://www2.dnr.state.mi.us/publications/pdfs/DNRFishLibrary/FisheriesReports /FR049_supp_material_Michigan_Correction.docx
- Supplemental figures:
  https://www2.dnr.state.mi.us/publications/pdfs/DNRFishLibrary/FisheriesReports /FR049_supp_material_Supplemental_Figs_2025.docx

Acknowledgements

This work was supported by the Federal Aid in Sport Fish Restoration Fund, Project F-61-R. Additional funding was provided through the Game and Fish Protection Fund, MDNR. The following individuals served as creel survey field staff during the 2025 season: Lake Michigan (Jordan Harper, Mark LaRoue, Braydon Sprik, Caleb Weisenberger, Brianna Abercrombie, Gene Duncil, Zach Smith, Joe Maka, Brian Armijo); Lake Superior (Dalton Sharpe, Kyle Demers, Jason Wieczorek, Jarron Masuga, Jack Cole); Lake Huron (Emily Aisthorpe, Emily Dodson, Julie Shafto, Mike Meadows, Mars Gregory, Luke Pekrul, Madison Bourdow-Hewitt, Alisha Denue, Kevin Lewis, Matt Currie, Mike Tower, Mary Beth Houel); Lake Erie and Lake St. Clair (Gina Gittings, Del Andrzejewski). MDNR managers and technician supervisors from each Fisheries Management Unit provided supervision and training for the creel clerks and management unit technicians filled in when clerk positions were vacant or during vacations. Seth Herbst, Kevin Wehrly, Dave Fielder, Doug Schultz, and Stephen Lenart provided critical reviews on the early versions of the report.

References

Fabrizio, M. C., J. R. Ryckman, and R. N. Lockwood. 1991. Evaluation of sampling methodologies of the Lake Michigan angler survey. American Fisheries Society Symposium 12:162–176.

Fielder, D. G., and A. S. Briggs. 2025. Status and trends of the fish community of Saginaw Bay, Lake Huron 2018–2022. Michigan Department of Natural Resources, Fisheries Report 45, Lansing.

Great Lakes Fishery Commission. 2022. The Great Lakes valuation report. https://www.glfc.org/pubs/factsheets/Great-Lakes-Valuation-factsheet.pdf.

Lockwood, R. N. 1997. Evaluation of catch rate estimators from Michigan access point angler surveys. North American Journal of Fisheries Management 17:611–620.

Lockwood, R. N., D. M. Benjamin, and J. R. Bence. 1999. Estimating angling effort and catch from Michigan roving and access site angler survey data. Michigan Department of Natural Resources, Fisheries Research Report 2044, Ann Arbor.

Lockwood, R. N. and G. P. Rakoczy. 2005. Comparison of interval and aerial count methods for estimating boating effort in Lake Michigan Statistical District MM-6. Michigan Department of Natural Resources, Fisheries Research Report 2078, Ann Arbor.

Malvestuto, S. P. 1996. Sampling the recreational creel. Pages 591–623 *in* Murphy, B. R.; Willis, D. W., eds. Fisheries Techniques, 2nd edition. American Fisheries Society, Bethesda, Maryland.

Madenjian, C. P., G. L. Fahnenstiel, T. H. Johengen, T. F. Nalepa, H. A. Vanderploeg, G. W. Fleischer, P. J. Schneeberger, D. M. Benjamin, E. B. Smith, J. R. Bence, and E. S. Rutherford. 2002. Dynamics of the Lake Michigan food web, 1970–2000. Canadian Journal of Fisheries and Aquatic Sciences 59:736–753.

O'Keefe, D. M., D. L. Wesander, and C. O. Oh. 2015. Factors influencing charter fishing effort trends in Lake Huron. Fisheries 40:214–221.

Pollock, K. H., C. M. Jones, and T. L. Brown. 1994. Angler survey methods and their applications in fisheries management. American Fisheries Society, Special Publication 25, Bethesda, Maryland.

Rakoczy, G. P., and R. F. Svoboda. 1993. Charter boat catch and effort from the Michigan waters of the Great Lakes, 1992. Michigan Department of Natural Resources, Fisheries Technical Report 93-2, Lansing.

Rakoczy, G. P., and R. F. Svoboda. 1995. Sportfishing catch and effort from the Michigan waters of Lakes Michigan, Huron, Erie, and Superior, April 1, 1993–March 31, 1994. Michigan Department of Natural Resources, Fisheries Technical Report 95-1, Lansing.

Su, Z., and D. Clapp. 2013. Evaluation of sample design and estimation methods for Great Lakes angler surveys. Transactions of the American Fisheries Society 142:234–246.

Su, Z., and J. X. He. 2013. Analysis of Lake Huron recreational fisheries data using models dealing with excessive zeros. Fisheries Research 148:81–89.

Su, Z. and Liu, H. 2025. Evaluation of bus-route and aerial-access methods for Great Lakes recreational fisheries surveys. Canadian Journal of Fisheries and Aquatic Sciences 82:1–27.

Tsehaye, I., M. L. Jones, T. O. Brenden, J. R. Bence, and R. M. Claramunt. 2014. Changes in the salmonine community of Lake Michigan and their implications for predator–prey balance. Transactions of the American Fisheries Society, 143(2), pp.420-437.

U.S. District Court. 2023. Order adopting the 2023 Great Lakes fishing decree. U.S. District Court for the Western District of Michigan, Case 2:73-cv-00026, Grand Rapids.

Publication Production Staff

Kevin Wehrly, Editor

Sarah Carlson, Desktop Publisher and Graphics

Tina Tincher, Desktop Publisher

Approved by Seth J. Herbst, Research Section Manager, April 1, 2026

Appendices

Appendix 1. Michigan's 2025 Great Lakes creel survey sites and their associated Great Lakes management unit. Site numbers marked with * indicate tributary sites surveyed with their associated Great Lakes sites; those results were included with the respective management unit.

Lake Name	Management Unit	Sites
Lake Erie	ER	699, 701, 702, 703, 801, 802
Lake Michigan	MM-1	20, 25
	MM-2	330
	MM-3	90, 80, 84*, 85
	MM-4	94, 95, 100, 103*
	MM-5	116,124
	MM-6	127, 128, 134
	MM-7	149, 153
	MM-8	160, 162, 164
Lake Huron	MH-1	211, 214, 215*, 216, 217*, 218, 296*,221*, 223
	MH-2	224, 225, 227, 228*
	MH-3	230*, 232, 234, 316*
	MH-4	250, 255, 260, 356, 278, 288, 290, 236, 355*, 401*
	MH-5	241
	MH-6	245, 246
Lake Superior	MI-1	
	MI-2	168, 171, 172, 311*
	MI-3	
	MI-4	182, 185, 188
	MI-5	190, 321*, 322*, 324* 605
	MI-6	194, 195, 606
	MI-7	197
	MI-8	

Appendix 2. Species abbreviation and the common and scientific name used for the fish observed in Michigan's Great Lakes creel surveys.

Species Abbreviation	Common name	Scientific name
BLG	Bluegill	*Lepomis macrochirus*
CCF	Channel Catfish	*Ictalurus punctatus*
CHS	Chinook Salmon	*Oncorhynchus tshawytscha*
COS	Coho Salmon	*Oncorhynchus kisutch*
DRU	Freshwater Drum	*Aplodinotus grunniens*
FAT	Lake Trout-Siscowet	*Salvelinus namaycush siscowet*
LAT	Lake Trout	*Salvelinus namaycush*
CIS	Cisco	*Coregonus artedi*
LMB	Largemouth Bass	*Micropterus salmoides*
LWF	Lake Whitefish	*Coregonus clupeaformis*
NOP	Northern Pike	*Esox lucius*
RBT	Rainbow Trout	*Oncorhynchus mykiss*
SMB	Smallmouth Bass	*Micropterus dolomieu*
WAE	Walleye	*Sander vitreus*
WHB	White Bass	*Morone chrysops*
WHP	White Perch	*Morone americanus*
YEP	Yellow Perch	*Perca flavescens*

Table A3. Years and sites in Lake Michigan in which boat counts were recorded incorrectly as instantaneous counts rather than the correct type of interval counts.

Year	Sites
2009	162, 164
2011	162, 164
2012	162, 164
2013	122, 162, 164
2014	149, 153, 162, 164
2015	127, 134, 312
2016	127, 134
2017	124, 127
2018	124, 127
2019	124, 127
2020	127, 128
2022	127, 128
2023	127, 128
2024	127, 128