Report of the Lake Erie Yellow Perch Task Group

March 2026

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Presented to:

Standing Technical Committee
Lake Erie Committee
Great Lakes Fishery Commission

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Introduction

From April 2025 through March 2026 the Yellow Perch Task Group (YPTG) addressed the following charges:

1. Maintain and update the centralized time series of datasets required for population models and assessment including:
   a. Fishery harvest, effort, age composition, biological and stock parameters.
   b. Survey indices of young of year, juvenile and adult abundance, size at age and biological parameters.
   c. Fishing harvest and effort by grid.
2. Report Recommended Allowable Harvest (RAH) levels for LEC TAC decisions.
3. Ensure population models are current and produce the most scientifically defensible and reliable method for estimating and forecasting abundance, recruitment, and mortality.
   a. Evaluate the impact of recruitment indices on ADMB model results.
   b. Evaluate ADMB model parameter sensitivity.
4. Supply needed technical support throughout the YPMP review process and support QFC with the transition of the Yellow Perch model from ADMB to TMB

Charge 1: 2025 Fisheries Review and Population Dynamics

The lakewide total allowable catch (TAC) of Yellow Perch in 2025 was 5.866 million pounds. This allocation represented a 10% decrease from a TAC of 6.554 million pounds in 2024. For Yellow Perch assessment and allocation, Lake Erie is partitioned into four management units (MUs; Figure 1.1). In March 2025, the Lake Erie Committee (LEC) set TAC allocations of 2.289, 0.972, 2.123, and 0.482 million pounds for MUs 1 through 4, respectively. In 2025 the LEC applied the standard harvest policy within the Yellow Perch Management Plan to set the TAC for MUs 1, 3 and 4. For MU1 and MU3, the 2025 TAC of 2.289 and 2.123 million pounds respectively was a 20% decrease from 2024. In MU4, the 2025 TAC of 0.482 million pounds was 3% lower than in 2024 and was set at the mean recommended allowable harvest value.

One component of the harvest control rules utilized in 2025 is a probabilistic risk tolerance (P). This value represents the probability of the yellow perch population being below the limit reference point after fishing in 2026 at the target fishing mortality rate (YPTG, 2025). The limit reference point is the biomass at maximum sustainable yield. If the probability that fishing at the target fishing mortality rate meets or exceeds a 0.20 probability (P*) that the projected spawning stock biomass will be less than the limit reference point, then the fishing rate is reduced until the probability is less than 0.20. In 2025, the P value in MU2 was 0.11, marking the second year that

MU2 did not invoke the P* rule since the YPMP took effect in 2019. The Yellow Perch Management Plan (YPMP) includes a provision on how to estimate RAH in a TAC year where P* is not invoked, but P* has persisted for multiple years prior. In this case the LEC will determine what the TAC would have been using the target F and the 20% TAC constraint for each of the years during that period, thus establishing what can be considered an "assumed TAC". The previous year's assumed TAC can then be used as a benchmark for the implementation of the 20% TAC constraint and a new TAC moving forward (LEC, 2020). Following the above guidance from the YPMP using previous "assumed TAC", the 2025 MU2 RAH ranged from 2.198 to 3.297 million pounds. However, most fishery and survey catch rates were poor to moderate, and there was no indication of a large year class recruiting to the fishery in 2025. Therefore, a precautionary approach was implemented MU2, and the 2025 TAC was set at 0.972 million pounds representing a 70% increase from 2024.

The lakewide harvest of Yellow Perch in 2025 was 3.158 million pounds, or 54% of the total 2025 TAC. This was a 10% decrease from the 2024 harvest of 3.500 million pounds. Harvest from MUs 1 through 4 was 1.449, 0.538, 0.862, and 0.309 million pounds, respectively (Table 1.1). The portion of TAC harvested was 63%, 55%, 41%, and 64%, in MUs 1 through 4, respectively. In 2025, Ontario harvested 2.202 million pounds, followed by Ohio (0.810 million lbs.), New York (0.050 million lbs.), Pennsylvania (0.049 million lbs.), and Michigan (0.047 million lbs.).

Ontario's fraction of allocation harvested was 96% in MU1, 89% in MU2, 59% in MU3, and 91% in MU4 (see paragraph below regarding Ontario's harvest reporting and commercial ice allowance policy). Ontario's TAC is allocated entirely to the commercial fishery. Ohio anglers and commercial fishers attained 44% of their TAC in the western basin (MU1), 27% in the west central basin (MU2), and 23% in the east central basin (MU3). There is no commercial fishery for Yellow Perch in Michigan. Michigan sport anglers in MU1 attained 23% of their TAC. Pennsylvania fisheries harvested 14% of their TAC in MU3 (trap net fishery and sport anglers) and 9% of their TAC in MU4 (angling only). New York fisheries attained 33% of their TAC in MU4 through a trap net fishery and angling. Ontario's portion of the lakewide Yellow Perch harvest in 2025 was 70% (Table 1.1). Ohio's proportion of lakewide harvest was 26%, and harvest in Michigan, Pennsylvania, and New York waters combined represented around 5% of the lakewide harvest in 2025.

Ontario continued to employ a commercial ice allowance policy implemented in 2002, by which 3.3% is subtracted from commercial landed weight. This step was taken so that ice needed

to maintain fish quality was not debited towards fishers' quotas. For consistency throughout the time series, Ontario's landed weights in the YPTG report have not been adjusted to account for ice content. Ontario's reported Yellow Perch harvest in tables and figures is represented exclusively by the commercial gill net fishery. Yellow Perch sport harvest from Ontario waters is assessed periodically. In 2024, Ontario completed a lakewide access point creel survey, which was the first creel survey since 2014. Harvest weights from this survey are reported at the bottom of tables 1.2 to 1.5. Reported sport harvests for Michigan, Ohio, Pennsylvania, and New York are based on annual creel survey estimates. Ohio, Pennsylvania, and New York trap net harvest and effort are based on commercial catch reports of landed fish. Additional fishery documentation is available in annual agency reports.

Harvest, fishing effort, and fishery harvest rates are summarized from 2016 to 2025 by management unit, year, agency, and gear type in Tables 1.2 to 1.5. Trends across a longer time series (1975 to 2025) are depicted graphically for harvest (Figure 1.2), fishing effort (Figure 1.3), and harvest rates (Figure 1.4) by management unit and gear type. The spatial distributions of harvest (all gears) and effort by gear type for 2025 in ten-minute interagency grids are presented in Figures 1.5 through 1.8.

Ontario's Yellow Perch harvest from large mesh (3 inches or greater stretched mesh) gill nets in 2025 was 4%, 21%, 3%, and <1% of the gill net harvest in management units 1–4, respectively. Harvest, effort, and catch per unit effort from (1) small mesh Yellow Perch effort (2.25"≤stretched mesh<3") and (2) larger mesh sizes, are distinguished in Tables 1.2 to 1.5. Relative to 2024, harvest from targeted small mesh gill nets in 2025 decreased by 26% in MU1, and increased 46%, 13%, and 3% in MU2, MU3, and MU4 respectively. Ontario trap nets, which primarily target white bass, harvested zero yellow perch in 2025. Ontario commercial Rainbow Smelt trawlers incidentally caught Yellow Perch in management units 3 and 4; this harvest is included in Tables 1.4 and 1.5. In 2025, 5 pounds of Yellow Perch were harvested in trawl nets in MU3 and 79 pounds were harvested in MU4.

Targeted (i.e., small mesh) gill net effort in 2025 increased from 2024 by 21%, 109%, 22%, and 8% in MU1 to MU4 respectively. Targeted gill net harvest rates in 2025 decreased by 39%, 30%, 7%, and 5% relative to 2024 rates in MU1 to MU4, respectively (Figure 1.4).

Total US sport harvest in MU1 for 2025 was 292,145 lbs., a 33% decline compared to 2024. US sport harvest in 2025 also declined in MU2 by 59% to 11,125 lbs., and in MU3 by 55% to 4,379 lbs. Sport harvest in U.S. waters of MU4 increased by 29% in 2025 with a total of 43,550 lbs. (Figure 1.2). Angling effort in U.S. waters during 2025 was highest in MU1 (506,312 hours) and lowest in MU3 (4,090 hours). Angler effort decreased by 13% during 2025 compared to

2024 in MU1. Angler effort also decreased in MU2 by 61% in MU2 and 65% in MU3. In 2025, angler effort increased by 12% in MU4 (Figure 1.3). Angler harvest and effort in MU2 and MU3 remained low compared to historic values and are based on very low sample numbers. In 2025, angling effort in U.S. waters in MU3 was at its lowest in the time series at 4,090 hours, and angling effort in MU2 (12,497 hours) was third lowest in the time series.

Sport fishing harvest rates are commonly expressed as fish harvested per angler hour for those seeking Yellow Perch. These harvest rates are presented in Tables 1.2 to 1.5. Compared to 2024 rates, targeted Yellow Perch harvest per angler hour in 2025 decreased in Michigan (-28%) and Ohio (-29%) waters of MU1. In the central basin, the sport angler harvest rate decreased in the Ohio waters of MU2 (-55%) and remains one of the lowest in the time series. In MU3, the 2025 targeted Yellow Perch sport harvest rate in Ohio waters and in Pennsylvania waters declined to 0.0 fish per angler hour, the lowest sport harvest rate in the time series. Sport harvest rates in both MU2 and MU3 should be interpreted with caution as values are based on small sample sizes and continue to reflect low sport effort in the central basin. In MU4, New York waters harvest rate was 2.5 fish/hour, which was a small decrease (-5%) compared to 2024. Harvest rate was 1.5 fish/hour in Pennsylvania waters, which was an increase of 153% from the low 2024 rate.

Commercial trap net harvest in US waters decreased by 40% in MU1, 4% in MU3, and 5% in MU4, while increasing by 70% in MU2 compared to 2024 (Tables 1.2 to 1.5). Trap net effort (lifts) in 2025 decreased in MU1 by 24% relative to 2024 trap net effort, while increasing 119%, 4%, and 20% in MU2, MU3 and MU4 respectively. Total trap net effort during 2025 was highest in MU1 at 5,466 lifts. Trap net harvest rates increased from 2024 rates by 22%, 22%, 8% and 21% in MU1 to MU4 respectively.

Age Composition

Lakewide, age-3 fish (2022 year class) contributed the most to the Yellow Perch harvest (39%), followed by age-4 fish (2021 year class; 30%) and age-2 fish (2023 year class; 20%), with age-5, and age-6-and-older fish contributing 6% and 3%, respectively (Table 1.6). In MU1, age-3 fish contributed 38% to the fishery, followed by age-4 fish (31%) and age-2 (26%). In MU2, age-4 contributed 35% to the fishery, followed by age-3 fish (32%) and age-2 fish (24%) as the next biggest contributors. In MU3, age-3 fish accounted for the largest proportion of harvest (43%), followed by age-4 fish (27%) and age-2 fish (13%). In MU4, age-3 fish contributed 45% to the fishery, followed by age-4 fish (27%) and age-5 fish (15%).

Statistical Catch-at-Age Analysis

The Yellow Perch Task Group generally estimates Yellow Perch population size for each management unit with statistical catch-at-age analysis (SCAA) using the Auto Differentiation Model Builder (ADMB) computer program (Fournier et al. 2012; YPTG, 2025). However, in 2026 the Yellow Perch SCAA models were not used to estimate Lake Erie Yellow Perch abundances. The YPTG has several concerns with the SCAA models. First, in recent years the SCAA model has failed to meet convergence criteria, indicating that the model may not be finding the best estimates of parameters such as selectivity and catchability. Second, abundance estimates in the last year of the model often decrease between the first estimate in the model and subsequent years' estimates in the model. On average, age-2 estimates for the various MUs decrease between 9% and 38% from the first time they are estimated by the model to the second time they are estimated by the model. Further, age-2 estimates decrease an average of 28% to 59% between the first time they are estimated by the model to the third time they are estimated by the model, with the lowest change occurring in MU4 and the highest in MU1. This leads to a potential overestimate of fish when calculating recommended allowable harvest. Third, the abundance estimates produced by the model do not reflect observed harvest and survey catch rates in some management units. Lastly, the stock-recruitment model used to estimate limit reference points and the target fishing rate used narrow parameter bounds and was incorrectly estimating the fishing rate at the maximum sustainable yield (F_{msy}). The YPTG worked with Michigan State University's Quantitative Fisheries Centre (QFC) to attempt to ameliorate these issues (see Charge 3). However, SCAA model results remain unreliable, leading the YPTG to discontinue the use of the current SCAA and stock-recruitment models. The YPTG continues to work with QFC and the Lake Erie Percid Management Advisory Group (LEPMAG) to produce and implement new assessment models and harvest control rules (see Charge 4).

Charge 2:   Harvest Strategy and Recommended Allowable Harvest (RAH)

In the absence of a statistical catch at age model, the YPTG was unable to implement the harvest control rule (HCR) as outlined in the Yellow Perch Management Plan (YPMP; LEC, 2020) and an alternate method of determining RAH was required in 2026. The International Council for the Exploration of the Sea (ICES) provides recommendations for fisheries with variable amounts of data including policies that have been tested with management strategy evaluations (MSEs)

and applied to global fisheries. For fisheries with "*survey-based assessments or exploratory assessments that indicate trends*" ICES recommends a precautionary approach (ICES, 2021). The ICES framework for a precautionary approach bases RAH change on available information such as stock status and fishing pressure. The framework is similar to a traffic light approach which increases or decreases total allowable catch based on trends in assessment data. The YPTG has developed a traffic light approach that would increase RAH when fishery and survey status indicators are good and decrease RAH when fishery and survey status indicators are poor. Fishery and survey data used in the approach include:

- Commercial gill net catch per unit effort (MUs 1–4, 1990–2025)
- Recreational harvest catch per unit effort (MUs 1–4, 1990–2025)
- Commercial trap net catch per unit effort (MUs 1–4, 1990–2025)
- Ontario Partnership gill net survey catch per net of age 2 and older (MUs 1–4, 1990–2025)
- Ohio fall trawl survey catch per hectare of age 2 and older (MUs 1–3, 1990–2025)
- New York gill net survey catch per net of age 2 and older (MU4, 1993–2025)

The fishery and survey assessment data are combined into one metric for use in the traffic light approach. First the datasets are standardized so they are on the same scale. To standardize the data sets, the time series average is subtracted from each annual value then divided by the standard deviation (Figure 2.1).

$$\frac{x - \bar{x}}{sd(x)}$$

Then the metrics are combined into a single overall score for the year by averaging the standardized values. A percent rank of the average score is calculated to understand if a score in a given year is low, average, or high compared to the full time series (Figure 2.2). The percent rank score from the current year is compared to threshold values to guide RAH decisions. The percent rank is considered:

- Poor if the percent rank value is below the lower threshold (25th percentile) and RAH may be reduced.
- Moderate if the percent rank value is between the lower threshold (25th percentile) and the upper threshold (75th percentile) and the RAH may remain the same.
- Good if the percent rank value is above the upper threshold (75th percentile) and the RAH may be increased.

Percent rank values using 2025 data are presented in Table 2.1. The percent rank of the averaged harvest and survey metrics in 2025 is 17%, 11% and 0% in MU1, MU2 and MU3 respectively. These values are below the 25th percentile threshold indicating that RAH should be reduced in these management units. The percent rank in MU4 was moderate at 43%, which indicates that RAH may be maintained in this unit.

The YPTG recommends reducing the RAH in MU1, MU2 and MU3, and maintaining the RAH in MU4. In MU3 the percent rank value is 0%, indicating the stock status in MU3 is at its lowest level in the time series, with the recreational harvest catch rate, Ontario Partnership survey catch rate, and Ohio trawl survey catch rate comprising the lowest values in their respective time series (Figure 2.1). Due to the very poor status of the Yellow Perch population in MU3, the YPTG recommends a larger reduction in MU3 RAH compared to MU1 and MU2.

Quota allocation by management unit and jurisdiction for 2026 utilized the same methods applied in 2009-2025, using GIS applications of jurisdictional surface area of waters within each MU (Figure 2.3). The allocation of shares by management unit and jurisdiction are:

Allocation of TAC within Management Unit and Jurisdiction, 2026:

MU						
MU1:	ONT	40.6%	OH	50.3%	MI	9.1%
MU2:	ONT	45.6%	OH	54.4%		
MU3:	ONT	52.3%	OH	32.4%	PA	15.3%
MU4:	ONT	58.0%	NY	31.0%	PA	11.0%

Charge 3: Ensure population models are current and produce the most scientifically defensible and reliable method for estimating and forecasting abundance, recruitment, and mortality.

The SCAA model used to assess Yellow Perch abundance has failed to meet convergence criteria in recent years and has produced strong retrospective patterns which may overestimate abundance when estimating RAH. During 2025–26, the YPTG worked with Michigan State University's Quantitative Fisheries Centre (QFC) to attempt to improve SCAA model performance. QFC modeled different objective functions within the SCAA model and widened bounds on parameter estimates, however model convergence was not improved.

In addition, there were issues with the stock-recruitment model used to estimate limit reference points and the target fishing rate. The stock-recruitment model used narrow parameter bounds which were reached when the model was run, implying that the model did not converge to the optimal parameter values. In addition, the model was not correctly estimating parameters

used to calculate F_{msy}. Attempts to resolve these issues resulted in the stock-recruitment model failing to meet convergence criteria. Furthermore, this stock-recruitment model utilizes unreliable population size inputs estimated by the SCAA assessment model which does not meet convergence criteria. Due to the unreliable SCAA and stock-recruitment model results, the YPTG has not used these models to estimate population abundance and RAH in 2026.

Charge 4.   Supply needed technical support throughout the upcoming YPMP review process

The YPMP review process requires the creation of new SCAA models. In order to move forward with the development of new SCAA model, a Fisheries Science Team (FST) was convened to proceed with technical aspects of the Yellow Perch Management Plan (YPMP) review. The FST consists of members of the YPTG and QFC personnel. During 2025–26, the FST collated all raw data used in the SCAA models and implemented new procedures for estimating numbers of fish harvested by fisheries. This will ensure consistency and repeatability of harvest estimations. The FST also investigated the use of two separate management units in the central basin (MU2 and MU3), in order to determine if they should be combined into one unit. The FST examined recruitment indices, survey catch rates, growth, maturity, condition and reviewed literature relating to genetics, morphometry and tagging studies in the central basin of Lake Erie. There were mixed signals among the data, with some information showing similar patterns between MU2 and MU3, and other information indicating differences between the units. There was no compelling evidence to combine MU2 and MU3 into one unit, and the units will be kept separate in the upcoming YPMP. A lakewide tagging study beginning in spring of 2026 will provide additional information on Yellow Perch habitat use and movement within and among management units. Additionally, QFC is investigating the use of modeling survey catch rates that are used in the SCAA model. Modeling survey catch rates may produce more precise estimates and may improve values when there is spatial/temporal autocorrelation and missing data. This work is on-going.

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Literature Cited

Fournier, D.A., H.J. Skaug, J. Ancheta, J. Ianelli, A. Magnusson, M.N. Maunder, A. Nielsen, and J. Sibert. 2012. AD Model Builder: using automatic differentiation for statistical inference of highly parameterized complex nonlinear models. Optim. Methods Softw. 27:233-249.

ICES. 2021. Advice on fishing opportunities. In Report of the ICES Advisory Committee, 2021. ICES Advice 2021. https://doi.org/10.17895/ices.advice.7720

Lake Erie Committee (LEC). 2020. Lake Erie Yellow Perch Management Plan 2020–2024. Lake Erie Committee of the Great Lakes Fishery Commission. Ann Arbor, Michigan, USA.

Yellow Perch Task Group (YPTG). 2025. Report of the Yellow Perch Task Group, March 2025. Presented to the Standing Technical Committee, Lake Erie Committee of the Great Lakes Fishery Commission. Ann Arbor, Michigan, USA.

Table 1.1. Lake Erie Yellow Perch harvest in pounds by management unit (Unit) and agency, 2016-2025

	Year	Ontario* Harvest	%	Ohio Harvest	%	Michigan Harvest	%	Pennsylvania Harvest	%	New York Harvest	%	Total Harvest
Unit 1	2016	947,052	42	886,068	40	397,044	18	--	--	--	--	2,230,164
	2017	1,277,587	46	1,239,575	45	255,605	9	--	--	--	--	2,772,767
	2018	1,262,229	54	956,016	41	107,789	5	--	--	--	--	2,326,034
	2019	847,476	69	357,533	29	15,745	1	--	--	--	--	1,220,754
	2020	857,561	64	391,231	29	84,613	6	--	--	--	--	1,333,405
	2021	959,259	58	625,787	38	69,575	4	--	--	--	--	1,654,621
	2022	770,476	51	658,935	44	67,667	5	--	--	--	--	1,497,078
	2023	1,016,545	43	1,254,927	53	104,388	4	--	--	--	--	2,375,860
	2024	1,181,781	57	803,016	39	71,968	3	--	--	--	--	2,056,765
	2025	896,850	62	505,659	35	46,980	3	--	--	--	--	1,449,489
Unit 2	2016	1,283,379	62	792,869	38	--	--	--	--	--	--	2,076,248
	2017	1,498,437	70	643,554	30	--	--	--	--	--	--	2,141,991
	2018	1,271,365	69	559,122	31	--	--	--	--	--	--	1,830,487
	2019	740,490	63	433,477	37	--	--	--	--	--	--	1,173,967
	2020	407,553	60	268,213	40	--	--	--	--	--	--	675,766
	2021	205,377	63	121,200	37	--	--	--	--	--	--	326,577
	2022	177,919	60	117,860	40	--	--	--	--	--	--	295,779
	2023	210,716	73	76,269	27	--	--	--	--	--	--	286,985
	2024	247,363	70	105,015	30	--	--	--	--	--	--	352,378
	2025	394,870	73	143,302	27	--	--	--	--	--	--	538,172
Unit 3	2016	2,020,470	76	522,549	20	--	--	107,972	4	--	--	2,650,991
	2017	2,027,235	77	504,223	19	--	--	107,335	4	--	--	2,638,793
	2018	1,807,645	78	460,797	20	--	--	54,085	2	--	--	2,322,527
	2019	1,328,966	79	320,756	19	--	--	38,953	2	--	--	1,688,675
	2020	478,837	71	175,550	26	--	--	18,022	3	--	--	672,408
	2021	704,636	75	220,127	23	--	--	18,938	2	--	--	943,701
	2022	932,682	77	211,444	18	--	--	63,872	5	--	--	1,207,998
	2023	959,420	78	222,369	18	--	--	54,538	4	--	--	1,236,327
	2024	578,286	72	163,785	21	--	--	55,585	7	--	--	797,656
	2025	655,702	76	161,429	19	--	--	44,570	5	--	--	861,701
Unit 4	2016	231,063	87	--	--	--	--	6,791	3	28,078	11	265,932
	2017	179,730	76	--	--	--	--	16,078	7	39,598	17	235,407
	2018	272,733	90	--	--	--	--	1,452	0	29,159	10	303,344
	2019	326,179	85	--	--	--	--	1,485	0	56,219	15	383,883
	2020	384,737	91	--	--	--	--	2,664	1	36,083	9	423,484
	2021	311,866	84	--	--	--	--	1,677	0	57,567	16	371,110
	2022	314,039	79	--	--	--	--	533	0	84,399	21	398,971
	2023	336,237	83	--	--	--	--	1,035	0	68,691	17	405,963
	2024	247,988	85	--	--	--	--	1,948	1	43,395	15	293,331
	2025	254,093	82	--	--	--	--	4,531	1	50,082	16	308,706
Lakewide Totals	2016	4,481,964	62	2,201,486	30	397,044	5	114,763	2	28,078	0	7,223,335
	2017	4,982,989	64	2,387,352	31	255,605	3	123,413	2	39,598	1	7,788,958
	2018	4,613,972	68	1,975,935	29	107,789	2	55,537	1	29,159	0	6,782,393
	2019	3,243,111	73	1,111,766	25	15,745	0	40,437	1	56,219	1	4,467,278
	2020	2,128,688	69	834,994	27	84,613	3	20,685	1	36,083	1	3,105,063
	2021	2,181,138	66	967,114	29	69,575	2	20,615	1	57,567	2	3,296,009
	2022	2,195,116	65	988,239	29	67,667	2	64,405	2	84,399	2	3,399,826
	2023	2,522,918	59	1,553,565	36	104,388	2	55,573	1	68,691	2	4,305,135
	2024	2,255,418	64	1,071,816	31	71,968	2	57,533	2	43,395	1	3,500,130
	2025	2,201,515	70	810,390	26	46,980	1	49,101	2	50,082	2	3,158,068

*processor weight (quota debit weight) to 2001; fisher/observer weight from 2002 to 2025 (negating ice allowance).

Table 1.2. Harvest, effort and harvest per unit effort summaries for Lake Erie Yellow Perch fisheries in Management Unit 1 (Western Basin) by agency and gear type, 2016-2025.

					Unit 1		
		Michigan	Ohio		Ontario Gill Nets		Ontario
	Year	Sport	Trap Nets	Sport	Small Mesh	Large Mesh*	Trap Nets
Harvest	2016	397,044	103,345	782,723	938,558	8,445	49
(pounds)	2017	255,605	447,263	792,312	1,271,282	5,466	839
	2018	107,789	439,720	516,296	1,248,042	14,031	156
	2019	15,745	193,243	164,290	818,773	28,670	33
	2020	84,613	136,555	254,676	853,096	4,463	2
	2021	69,575	182,521	443,266	939,063	20,179	17
	2022	67,667	188,739	470,196	756,770	13,706	0
	2023	104,388	414,728	840,199	1,001,296	15,249	0
	2024	71,968	436,029	366,987	1,162,819	18,962	0
	2025	46,980	260,494	245,165	859,145	37,705	0
Harvest	2016	180	47	355	426	4	0.02
(Metric)	2017	116	203	359	577	2	0.38
(tonnes)	2018	49	199	234	566	6	0.07
	2019	7	88	75	371	13	0.01
	2020	38	62	115	387	2	0.00
	2021	32	83	201	426	9	0.01
	2022	31	86	213	343	6	0.00
	2023	47	188	381	454	7	0.00
	2024	33	198	166	527	9	0.00
	2025	21	118	111	390	17	0.00
Effort	2016	251,426	2,446	824,418	6,091	431	--
(a)	2017	204,877	3,830	775,334	5,656	600	--
	2018	137,930	3,500	500,695	5,143	667	--
	2019	57,929	3,811	284,068	6,363	714	--
	2020	151,528	3,341	500,595	9,183	393	--
	2021	113,935	3,741	628,491	10,489	1,124	--
	2022	115,916	4,943	621,067	8,588	1,354	--
	2023	97,889	6,696	923,523	7,212	1,020	--
	2024	91,154	7,169	493,672	6,542	898	--
	2025	82,999	5,466	423,313	7,884	1,319	--
Harvest Rates	2016	4.8	19.2	4.1	69.9	8.9	--
(b)	2017	4.3	53.0	3.4	101.9	4.1	--
	2018	2.3	57.0	2.9	110.1	9.5	--
	2019	0.8	23.0	1.7	58.4	18.2	--
	2020	1.8	18.5	1.6	42.1	5.2	--
	2021	1.7	22.1	2.0	40.6	8.1	--
	2022	1.5	17.3	2.1	40.0	4.6	--
	2023	3.0	28.1	2.9	63.0	6.8	--
	2024	2.0	27.6	2.4	80.6	9.6	--
	2025	1.5	21.6	1.7	49.4	13.0	--

(a) sport effort in angler-hours; gill net effort in km; trap net effort in lifts

(b) harvest rates for sport in fish/hr, gill net in kg/km, trap net in kg/lift

(c) the Ontario sport fishery harvested approximately 1,263 lbs of yellow perch in the 2024 creel survey

(*) large mesh catch rates are not targeted and are therefore of limited value.

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Table 1.3.   Harvest, effort and harvest per unit effort summaries for Lake Erie Yellow Perch fisheries in Management Unit 2 (western Central Basin) by agency and gear type, 2016-2025.

		Unit 2				
		Ohio		Ontario	Gill Nets	Ontario
	Year	Trap Nets	Sport	Small Mesh	Large Mesh*	Trawls
Harvest	2016	688,033	104,836	1,248,729	34,631	19
(pounds)	2017	590,447	53,107	1,435,508	62,872	57
	2018	528,234	30,888	1,204,621	66,744	0
	2019	419,631	13,846	569,850	170,640	0
	2020	248,721	19,492	376,946	30,604	3
	2021	116,109	5,091	151,859	53,518	0
	2022	97,659	20,201	152,490	25,429	0
	2023	64,854	11,415	189,619	21,097	0
	2024	77,788	27,227	212,367	34,996	0
	2025	132,177	11,125	310,813	84,057	
Harvest	2016	312	48	566	16	0.0
(Metric)	2017	268	24	651	29	0.0
(tonnes)	2018	240	14	546	30	0.0
	2019	190	6	258	77	0.0
	2020	113	9	171	14	0.0
	2021	53	2	69	24	0.0
	2022	44	9	69	12	0.0
	2023	29	5	86	10	0.0
	2024	35	12	96	16	0.0
	2025	60	5	141	38	0.0
Effort	2016	4,510	204,745	6,424	1,934	--
(a)	2017	2,567	119,163	6,094	1,946	--
	2018	1,551	45,683	5,964	2,155	--
	2019	2,192	24,826	4,431	4,050	--
	2020	2,177	27,006	4,294	1,920	--
	2021	839	1,898	1,951	2,999	--
	2022	1,571	26,634	1,479	1,881	--
	2023	289	4,011	1,593	1,756	--
	2024	285	32,063	1,591	1,949	--
	2025	624	12,497	3,320	3,081	--
Harvest Rates	2016	69.2	1.2	88.2	8.1	--
(b)	2017	104.3	0.8	106.8	14.7	--
	2018	154.5	0.8	91.6	14.0	--
	2019	86.8	0.4	58.3	19.1	--
	2020	51.8	1.1	39.8	7.2	--
	2021	62.8	0.1	35.3	8.1	--
	2022	28.2	0.5	46.8	6.1	--
	2023	101.8	0.7	54.0	5.4	--
	2024	123.8	0.8	60.5	8.1	--
	2025	96.1	0.4	42.5	12.4	--

(a) sport effort in angler-hours; gill net effort in km; trap net effort in lifts
(b) harvest rates for sport in fish/hr, gill net in kg/km, trap net in kg/lift
(c) the Ontario sport fishery harvested approximately 827 lbs of yellow perch in the 2024 creel survey
(*) large mesh catch rates are not targeted and therefore of limited value

Table 1.4.   Harvest, effort and harvest per unit effort summaries for Lake Erie Yellow Perch fisheries in Management Unit 3 (eastern Central Basin) by agency and gear type, 2016-2025.

| | | Unit 3 | | | | | | |
| | | Ohio | | Pennsylvania | | Ontario Gill Nets | | Ontario |
	Year	Trap Nets	Sport	Trap Nets	Sport	Small Mesh	Large Mesh*	Trawls
Harvest	2016	349,844	172,705	51,148	56,824	2,003,842	16,459	169
(pounds)	2017	449,979	54,244	45,741	61,594	1,964,728	61,127	1,380
	2018	439,233	21,564	51,093	2,992	1,743,484	63,902	259
	2019	318,089	2,667	34,323	4,630	1,261,586	67,230	150
	2020	171,180	4,370	14,961	3,061	403,720	75,102	15
	2021	206,384	13,743	17,303	1,635	622,917	81,711	8
	2022	207,890	3,554	60,665	3,207	904,990	27,671	21
	2023	218,689	3,680	53,209	1,329	942,641	16,768	11
	2024	156,864	6,921	52,808	2,777	561,122	17,084	80
	2025	158,724	2,705	42,896	1,674	635,431	20,266	5
Harvest	2016	159	78	23.2	26	909	7	0.1
(Metric)	2017	204	25	20.7	28	891	28	0.6
(tonnes)	2018	199	10	23.2	1	791	29	0.1
	2019	144	1	15.6	2	572	30	0.1
	2020	78	2	6.8	1	183	34	0.0
	2021	94	6	7.8	1	283	37	0.0
	2022	94	2	27.5	1	410	13	0.0
	2023	99	2	24.1	1	428	8	0.0
	2024	71	3	23.9	1	254	8	0.0
	2025	72	1	19.5	1	288	9	0.0
Effort	2016	2,000	181,622	604	57,545	5,964	798	--
(a)	2017	1,679	58,119	262	98,302	4,775	1,206	--
	2018	2,233	16,805	324	7,836	5,204	1,031	--
	2019	2,901	2,475	382	5,668	6,956	1,264	--
	2020	1,811	5,022	241	1,697	3,968	1,275	--
	2021	2,075	9,688	92	3,301	5,191	1,519	--
	2022	2,405	2,341	150	3,779	4,942	788	--
	2023	1,784	2,566	277	2,214	5,872	907	--
	2024	1,648	7,903	203	3,719	3,955	1,004	--
	2025	1,717	2,820	209	1,270	4,818	853	--
Harvest Rates	2016	79.3	1.9	38.4	2.0	152.4	9.4	--
(b)	2017	121.5	1.4	79.2	2.1	186.6	23.0	--
	2018	89.2	1.6	71.5	0.3	151.9	28.1	--
	2019	49.7	0.1	40.7	0.6	82.2	24.1	--
	2020	42.9	1.4	28.2	0.7	46.1	26.7	--
	2021	45.1	1.2	85.3	0.5	54.4	24.4	--
	2022	39.2	0.4	183.4	0.6	83.0	15.9	--
	2023	55.6	1.3	87.1	0.1	72.8	8.4	--
	2024	43.2	0.4	118.0	0.7	64.3	7.7	--
	2025	41.9	0.0	93.1	0.0	59.8	10.8	--

(a) sport effort in angler-hours; gill net effort in km; trap net effort in lifts
(b) harvest rates for sport in fish/hr, gill net in kg/km, trap net in kg/lift
(c) the Ontario sport fishery harvested approximately 1,210 lbs of yellow perch in the 2024 creel survey
(*) large mesh catch rates are not targeted and therefore of limited value

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Table 1.5.   Harvest, effort and harvest per unit effort summaries for Lake Erie Yellow Perch fisheries in Management Unit 4 (Eastern Basin) by agency and gear type, 2016-2025.

		Unit 4						
		New York		Pennsylvania		Ontario Gill Nets		Ontario
	Year	Trap Nets	Sport	Trap Nets	Sport	Small Mesh	Large Mesh*	Trawls
Harvest	2016	11,465	16,613	0	6,791	230,333	65	665
(pounds)	2017	12,366	27,232	0	16,078	177,475	32	2,223
	2018	10,657	18,502	0	1,452	271,795	583	355
	2019	18,750	37,469	0	1,485	326,075	58	46
	2020	14,837	21,246	0	2,664	384,684	39	14
	2021	11,354	46,213	0	1,677	305,463	6,254	149
	2022	14,913	69,486	0	533	312,847	410	782
	2023	13,836	54,855	0	1,035	335,028	756	453
	2024	11,686	31,709	0	1,948	246,785	1,163	40
	2025	11,063	39,019	0	4,531	253,009	1,005	79
Harvest	2016	5.2	7.5	0	3.1	104.5	0.03	0.3
(Metric)	2017	5.6	12.4	0	7.3	80.5	0.01	1.0
(tonnes)	2018	4.8	8.4	0	0.7	123.3	0.26	0.2
	2019	8.5	17.0	0	0.7	147.9	0.03	0.0
	2020	6.7	9.6	0	1.2	174.5	0.02	0.0
	2021	5.1	21.0	0	0.8	138.5	2.84	0.1
	2022	6.8	31.5	0	0.2	141.9	0.19	0.4
	2023	6.3	24.9	0	0.5	151.9	0.34	0.2
	2024	5.3	14.4	0	0.9	111.9	0.53	0.0
	2025	5.0	17.7	0	2.1	114.7	0.46	0.0
Effort	2016	248	27,436	0	11,934	1,303	11.2	--
(a)	2017	208	26,154	0	12,843	565	6.0	--
	2018	135	19,035	0	3,940	887	58.7	--
	2019	224	30,166	0	2,730	947	29.7	--
	2020	136	18,677	0	1,294	1,492	34.4	--
	2021	137	29,237	0	1,598	2,081	67.1	--
	2022	241	49,968	0	600	1,317	33.6	--
	2023	214	33,059	0	453	1,652	79.7	--
	2024	172	16,672	0	2,305	1,570	179.0	--
	2025	206	18,249	0	2,934	1,688	273.2	--
Harvest Rates	2016	21.0	1.0	--	1.3	80.1	2.6	--
(b)	2017	27.0	1.4	--	1.2	142.3	2.4	--
	2018	35.8	1.5	--	0.4	139.0	4.5	--
	2019	38.0	1.8	--	0.6	156.1	0.9	--
	2020	49.5	1.5	--	1.2	117.0	0.5	--
	2021	37.6	2.0	--	0.4	66.6	42.3	--
	2022	28.1	1.9	--	0.0	107.7	5.5	--
	2023	29.3	2.5	--	1.3	92.0	4.3	--
	2024	30.8	2.6	--	0.6	71.3	2.9	--
	2025	24.4	2.5	--	1.5	68.0	1.7	--

(a) sport effort in angler-hours; gill net effort in km; trap net effort in lifts
(b) harvest rates for sport in fish/hr, gill net in kg/km, trap net in kg/lift
(c) the Ontario sport fishery harvested approximately 9,977 lbs of yellow perch in the 2024 creel survey
(*) large mesh catch rates are not targeted and therefore of limited value

Table 1.6. Estimated 2025 Lake Erie Yellow Perch harvest by age and numbers of fish by gear and management unit (Unit).

Gear	Age	Unit 1 Number	%	Unit 2 Number	%	Unit 3 Number	%	Unit 4 Number	%	Lakewide Number	%
Gill Nets	1	12,515	0.4	28,028	2.8	0	0.0	0	0.0	40,543	0.6
	2	758,311	27.2	298,406	30.2	242,817	12.1	57,391	7.9	1,356,925	20.9
	3	1,080,491	38.8	313,932	31.8	900,715	45.1	356,579	49.0	2,651,717	40.8
	4	861,061	30.9	295,939	29.9	527,794	26.4	186,358	25.6	1,871,152	28.8
	5	52,922	1.9	45,958	4.6	200,959	10.1	100,291	13.8	400,130	6.2
	6+	18,083	0.6	6,347	0.6	126,586	6.3	27,003	3.7	178,019	2.7
	Total	2,783,383	*64.1*	988,610	*77.8*	1,998,871	*82.9*	727,622	*89.4*	6,498,486	*73.6*
Trap Nets	1	7,802	1.1	0	0.0	485	0.1	0	0.0	8,287	0.6
	2	109,777	15.7	8,252	3.1	62,206	15.3	353	1.3	180,588	12.9
	3	313,075	44.8	87,897	33.2	133,384	32.9	5,652	21.3	540,008	38.7
	4	246,673	35.3	139,560	52.7	123,487	30.5	11,834	44.7	521,554	37.4
	5	15,863	2.3	11,480	4.3	35,291	8.7	5,299	20.0	67,933	4.9
	6+	6,365	0.9	17,579	6.6	50,438	12.4	3,356	12.7	77,738	5.6
	Total	699,555	*16.1*	264,768	*20.8*	405,291	*16.8*	26,493	*3.3*	1,396,107	*15.8*
Sport	1	76,440	8.9	129	0.8	9	0.2	0	0.0	76,578	8.1
	2	248,041	28.9	1,661	10.0	143	2.4	851	1.4	250,696	26.7
	3	257,777	30.0	3,705	22.4	921	15.7	6,084	10.2	268,488	28.6
	4	242,773	28.3	6,618	39.9	2,125	36.2	18,665	31.4	270,181	28.7
	5	27,867	3.2	1,727	10.4	635	10.8	17,855	30.1	48,084	5.1
	6+	5,380	0.6	2,731	16.5	2,042	34.8	15,916	26.8	26,069	2.8
	Total	858,279	*19.8*	16,571	*1.3*	5,875	*0.2*	59,372	*7.3*	940,096	*10.6*
All Gear	1	96,757	2.2	28,157	2.2	494	0.0	0	0.0	125,408	1.4
	2	1,116,129	25.7	308,319	24.3	305,166	12.7	58,595	7.2	1,788,209	20.2
	3	1,651,343	38.0	405,534	31.9	1,035,020	42.9	368,315	45.3	3,460,213	39.2
	4	1,350,507	31.1	442,117	34.8	653,406	27.1	216,857	26.7	2,662,887	30.1
	5	96,652	2.2	59,165	4.7	236,885	9.8	123,445	15.2	516,147	5.8
	6+	29,828	0.7	26,657	2.1	179,066	7.4	46,275	5.7	281,826	3.2
	Total	4,341,217	*49.1*	1,269,949	*14.4*	2,410,037	*27.3*	813,487	*9.2*	8,834,689	*100.0*

Note: Values in *italics* delineate harvest percentage by gear in each Unit, while the values in the 'All Gear' boxes are for lakewide harvest percentage by Unit.

Table 2.1. Percent rank values of combined harvest and survey metrics and advice for 2026 RAH from the traffic light apporach

Unit	Percent Rank of Combined Metrics with 2025 data	Status	2026 RAH advice
1	17%	Poor	Reduce RAH
2	11%	Poor	Reduce RAH
3	0%	Poor	Reduce RAH
4	43%	Moderate	Maintain RAH
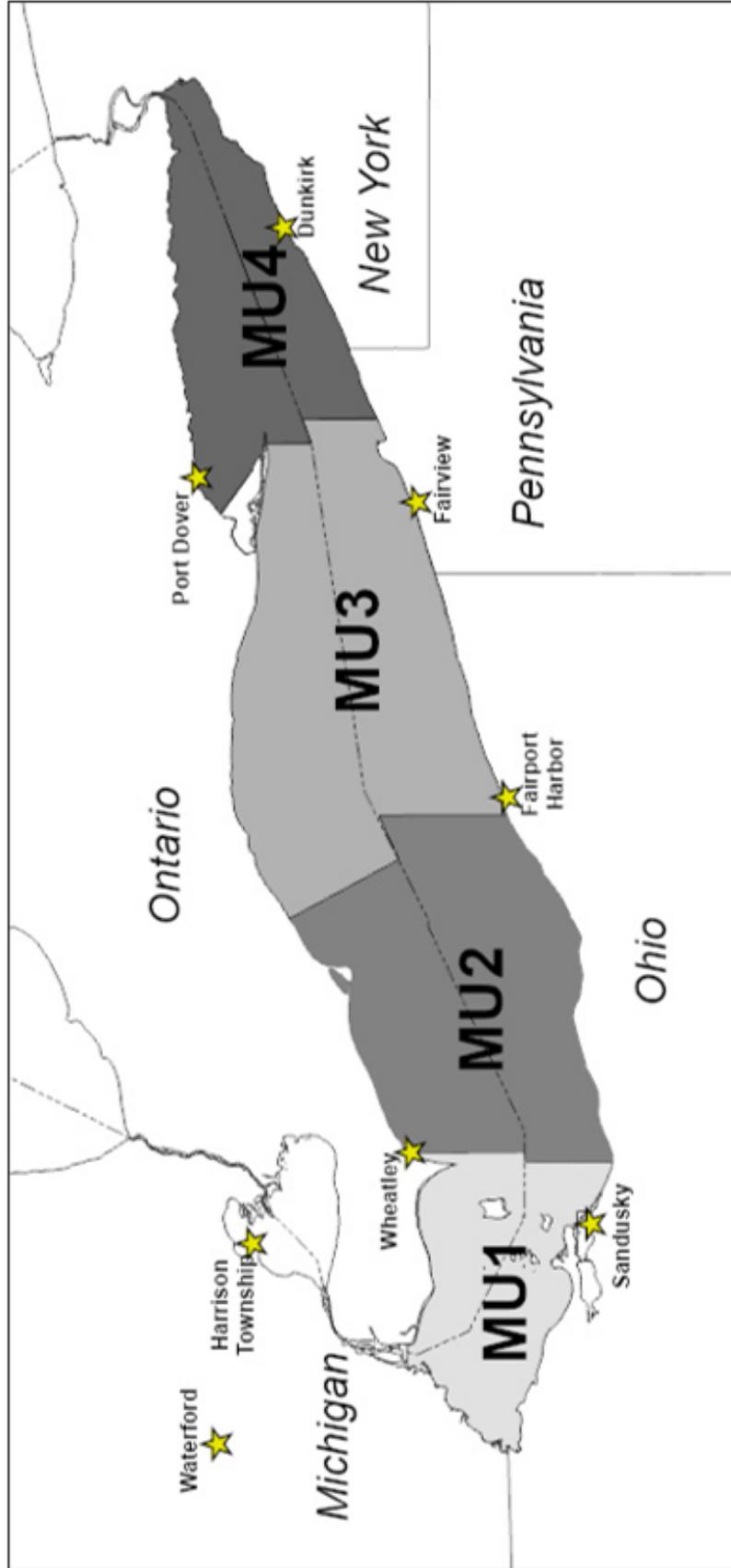
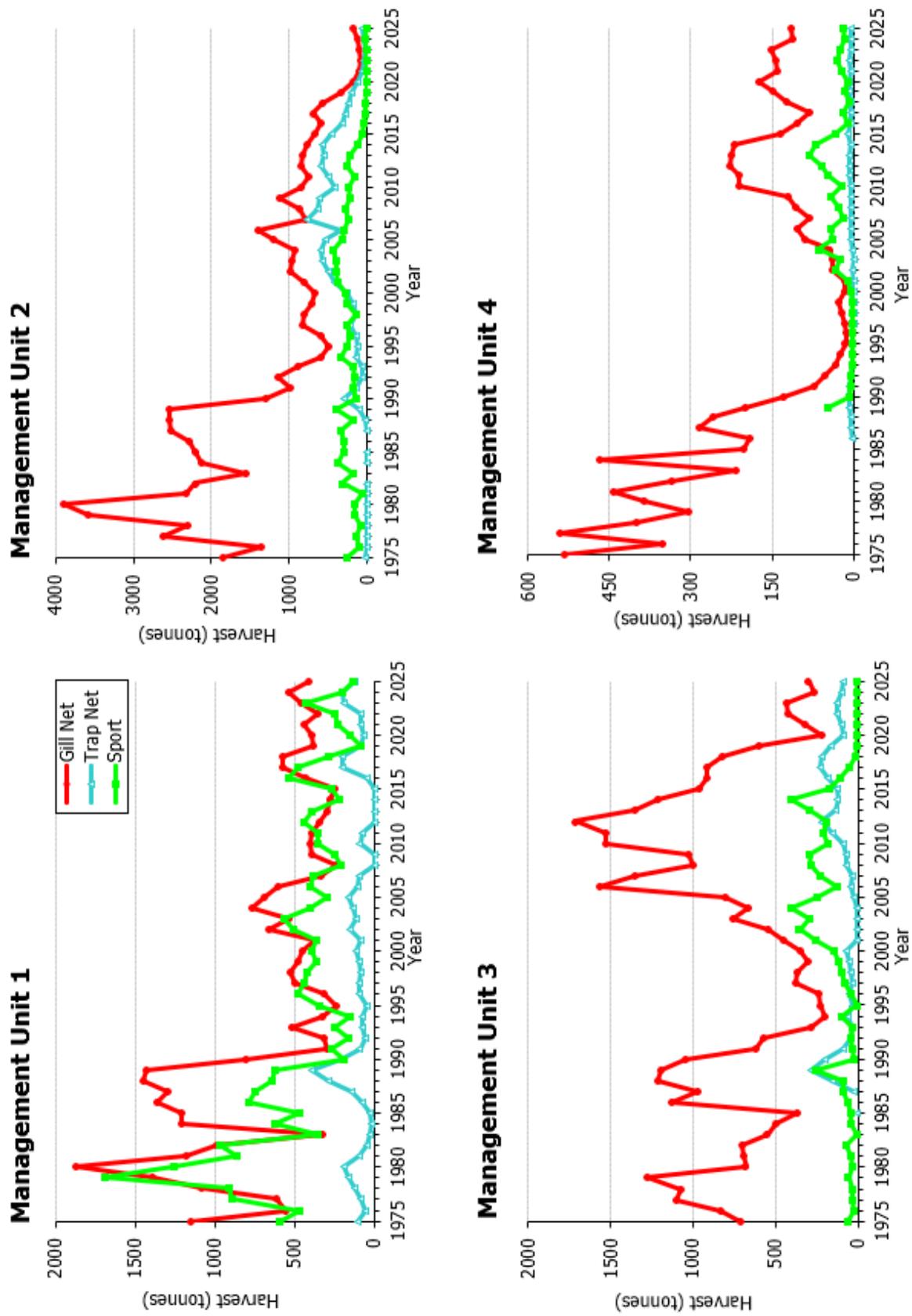**Figure 1.1.** The Yellow Perch Management Units (MUs) of Lake Erie defined by the YPTG and LEC, for illustrative purposes.

Figure 1.2. Historic Lake Erie Yellow Perch harvest (metric tonnes) by management unit and gear type.
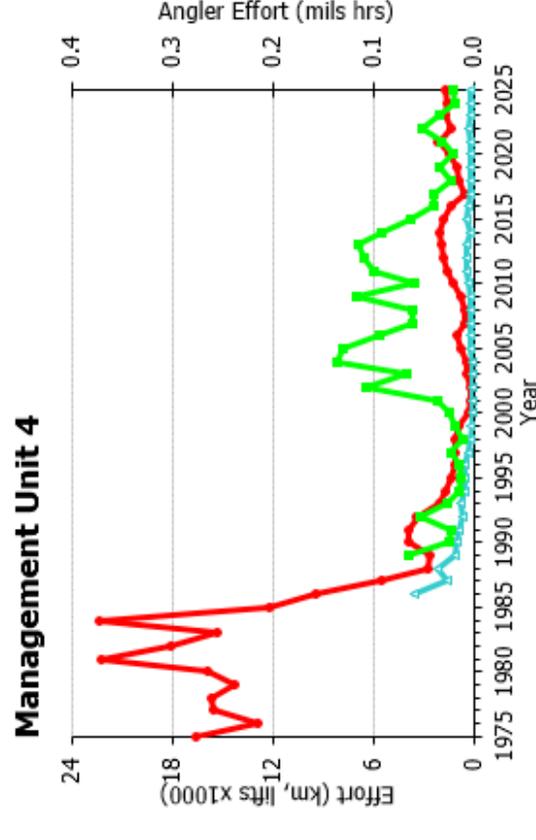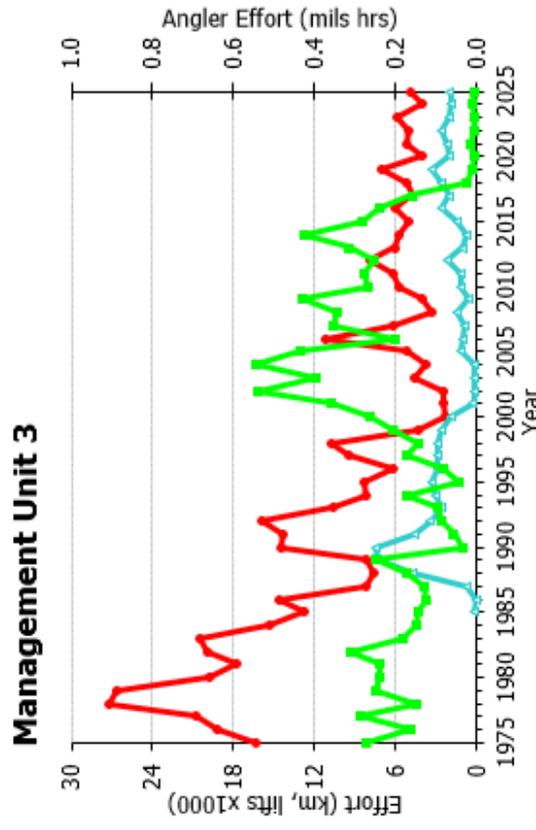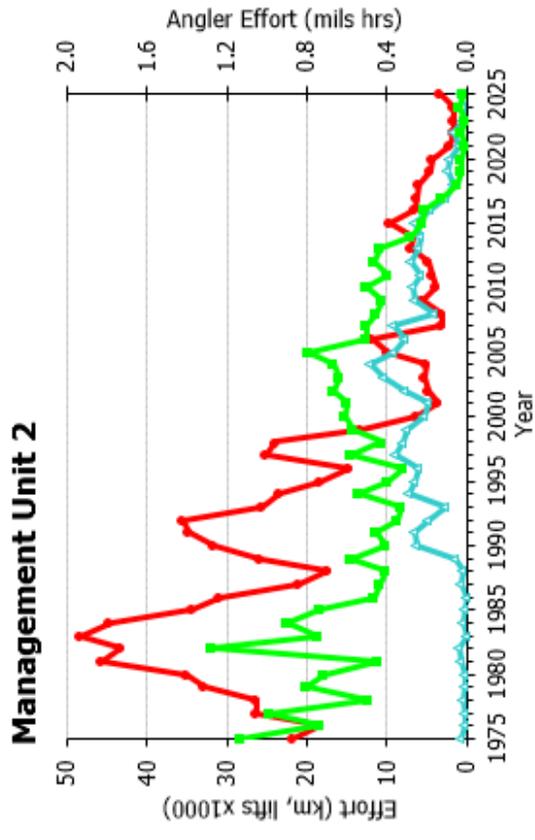
Figure 1.3. Historic Lake Erie Yellow Perch effort by management unit and gear type. Note: gill net effort presented is targeted effort with small mesh (< 3").

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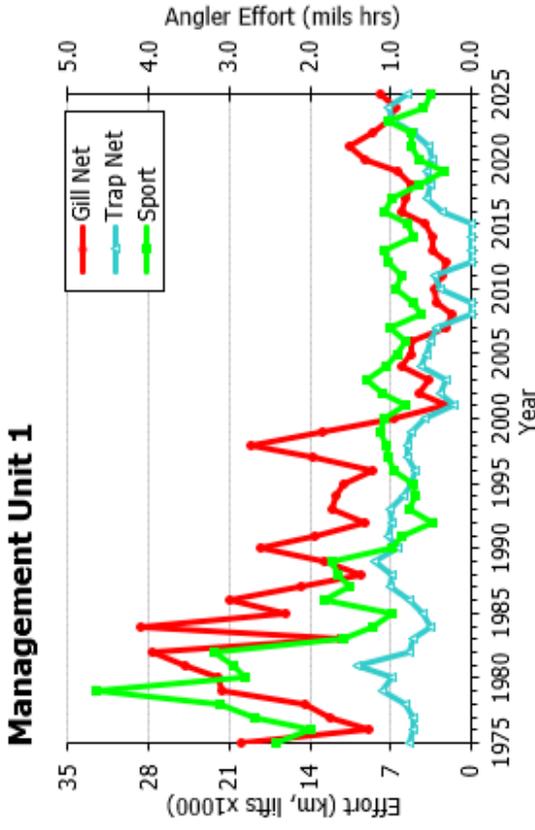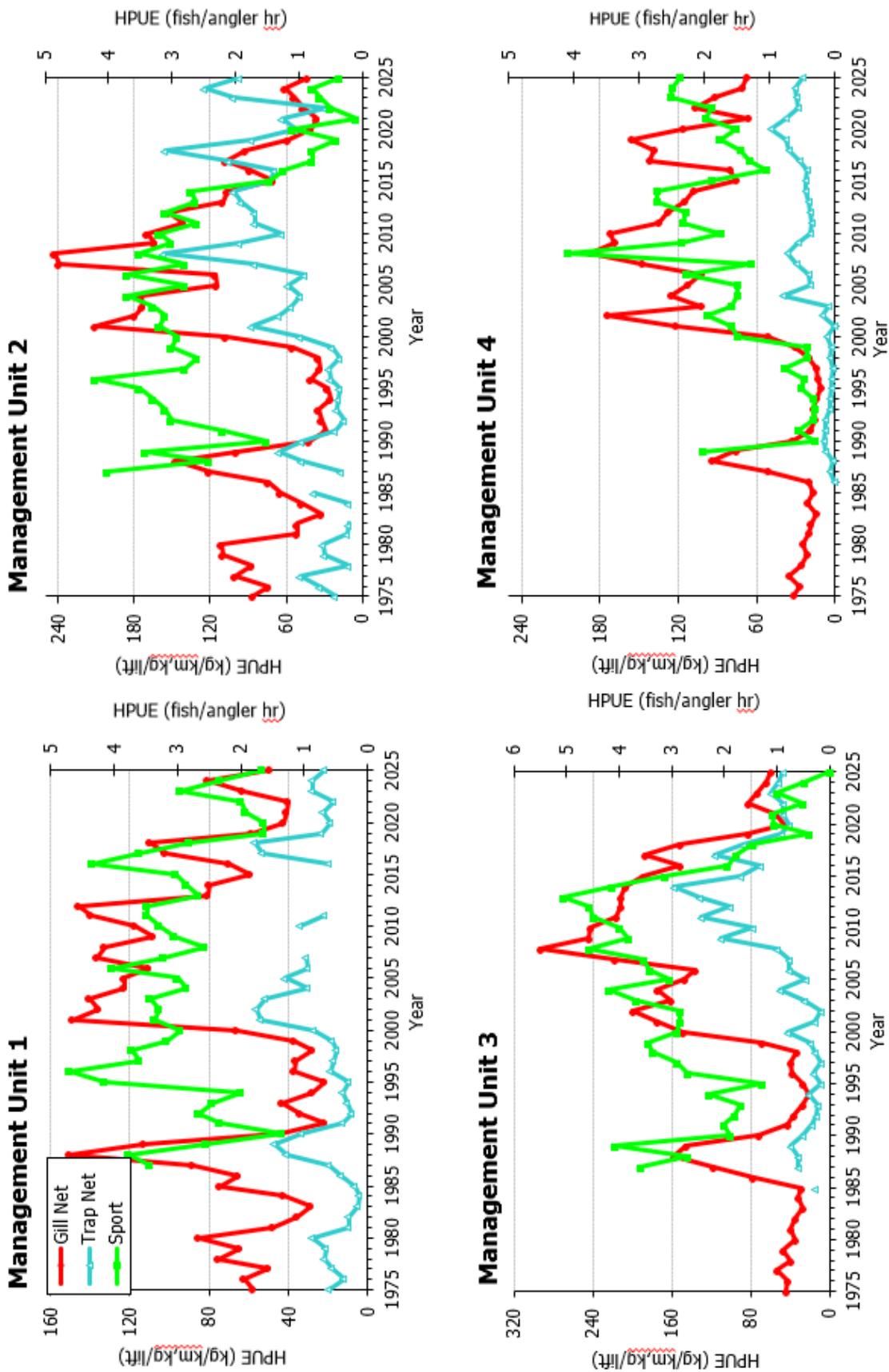**Figure 1.4.** Historic Lake Erie Yellow Perch harvest per unit effort (HPUE) by management unit and gear type. Note: gill net CPUE for 2001 to 2025 is for small mesh (< 3") only.
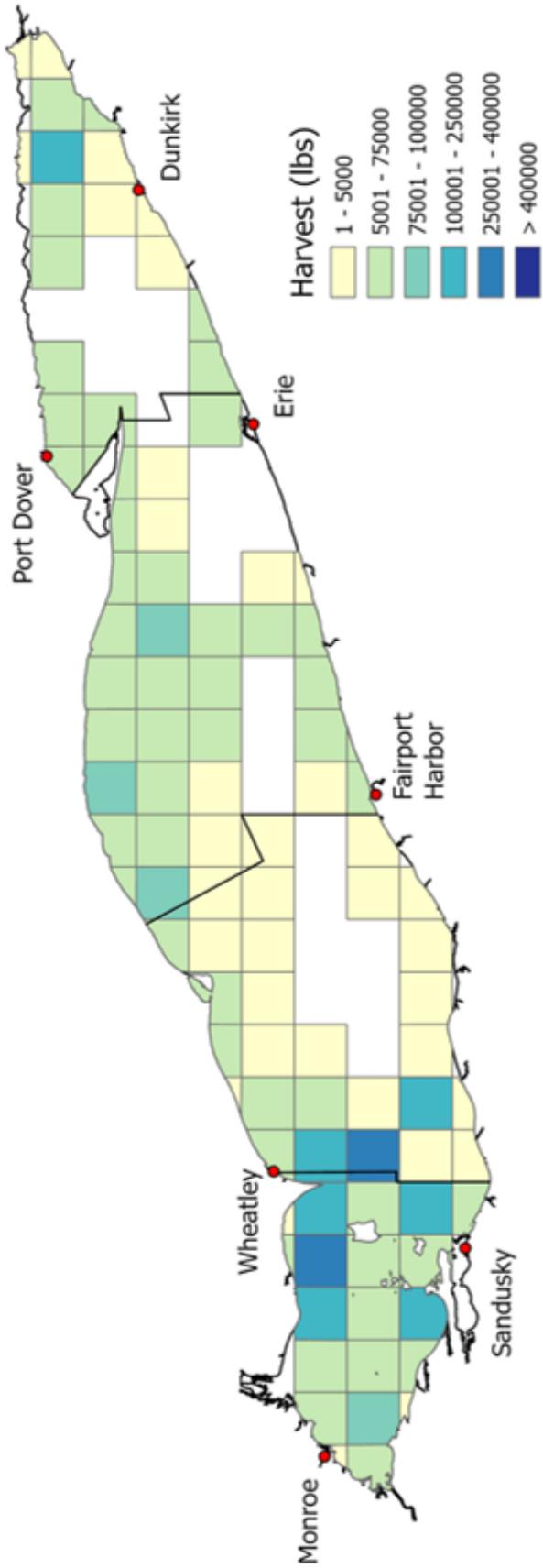
Figure 1.5. Spatial distribution of Yellow Perch total harvest (lbs.) in 2025 by 10-minute grid.
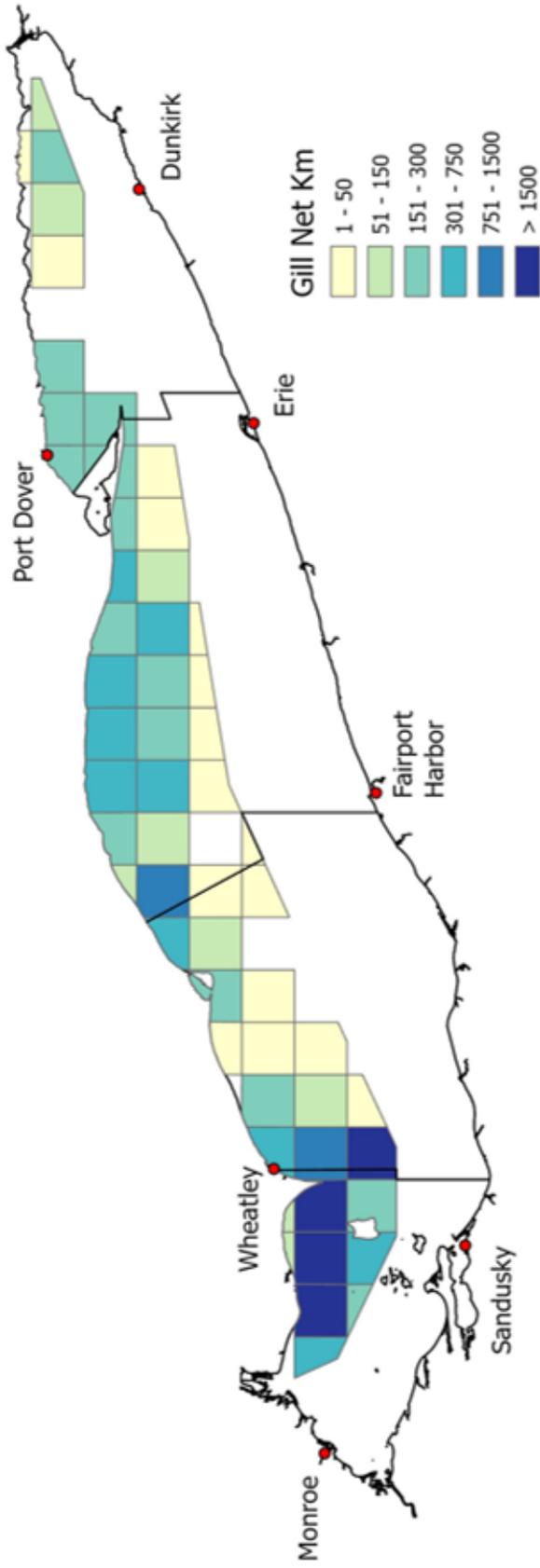
Figure 1.6. Spatial distribution of Yellow Perch small mesh gill net effort (km) in 2025 by 10-minute grid.
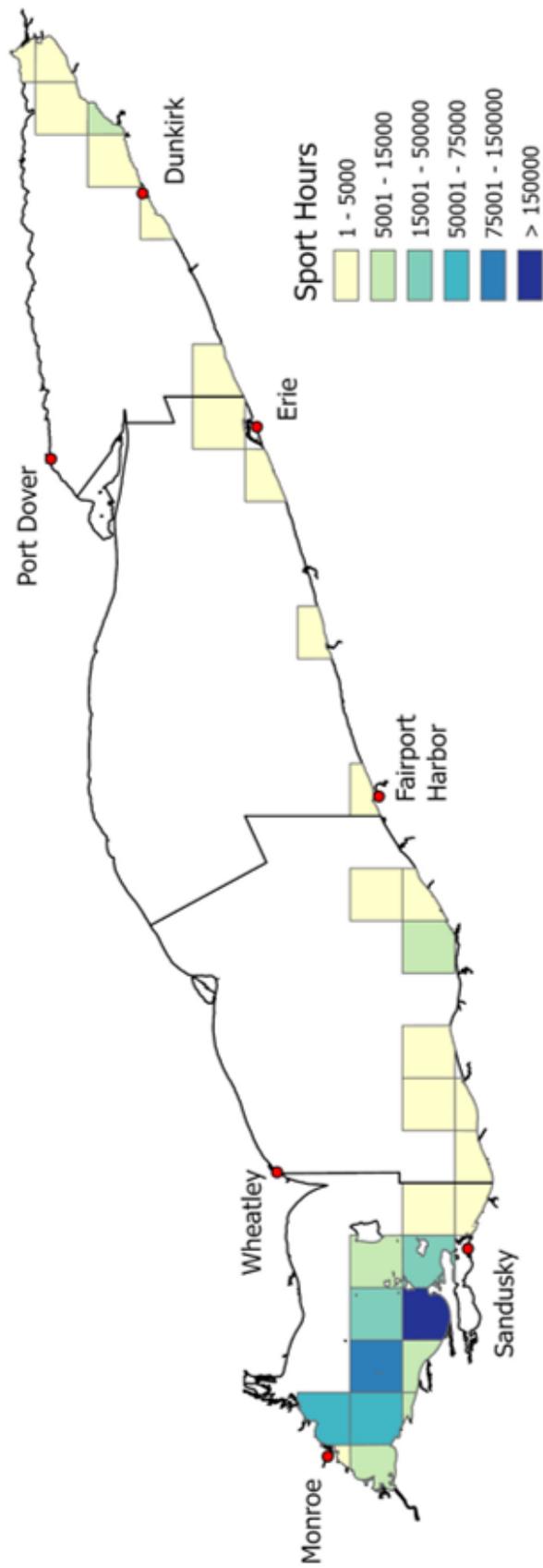
Figure 1.7. Spatial distribution of Yellow Perch sport effort (angler hours) in 2025 by 10-minute grid.
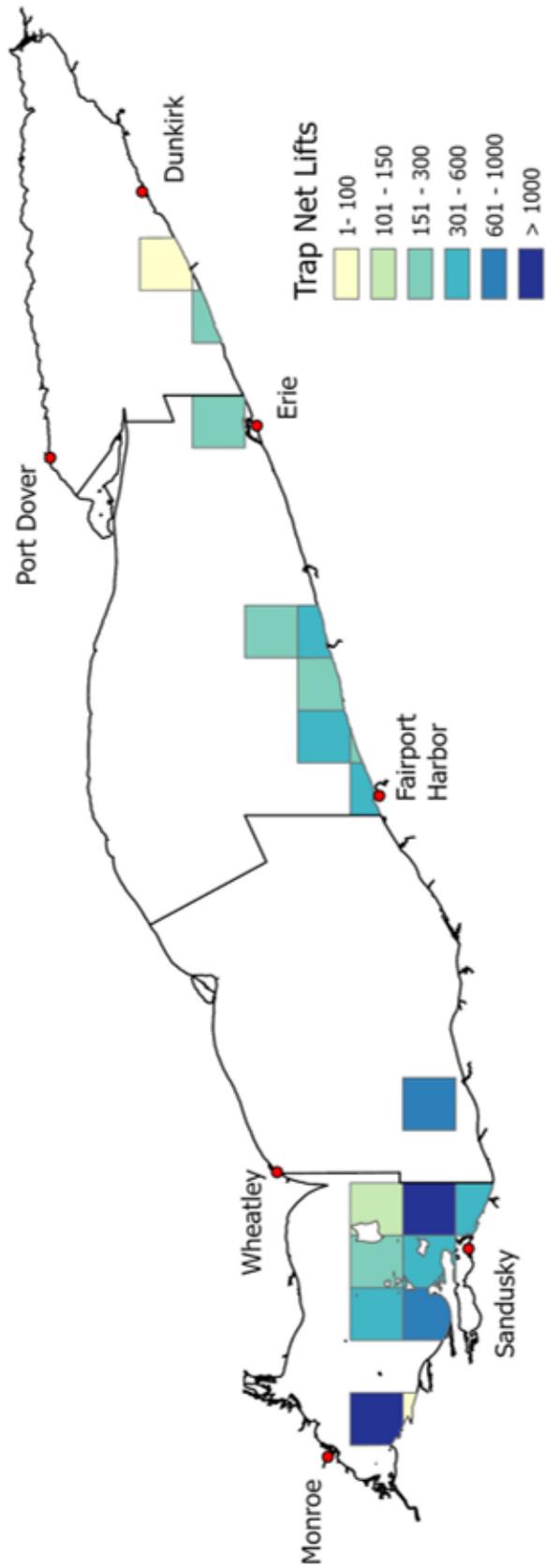
Figure 1.8. Spatial distribution of Yellow Perch trap net effort (lifts) in 2025 by 10-minute grid.
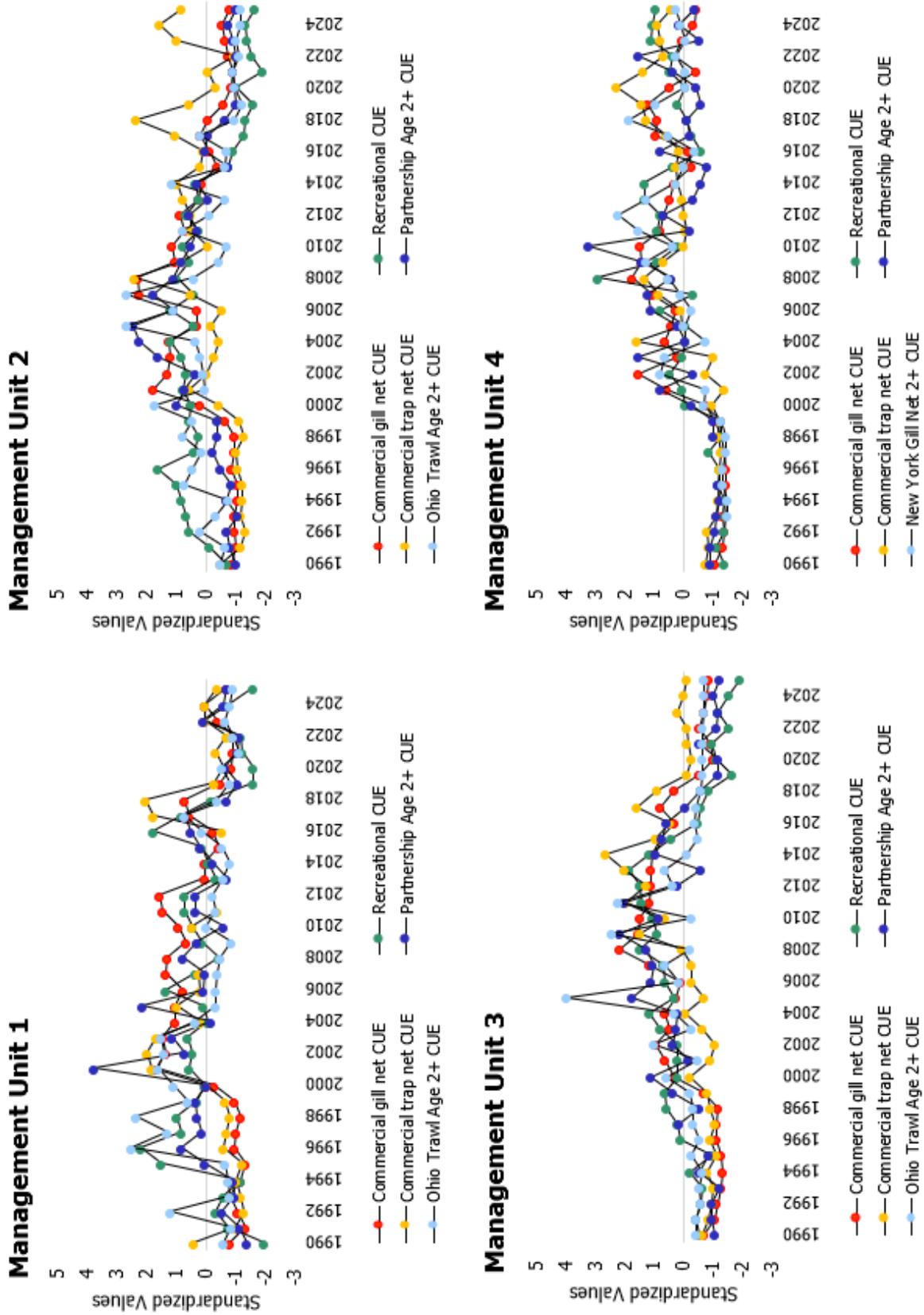
Figure 2.1. Standardized harvest and survey values for adult Yellow Perch from 1990 to 2025.
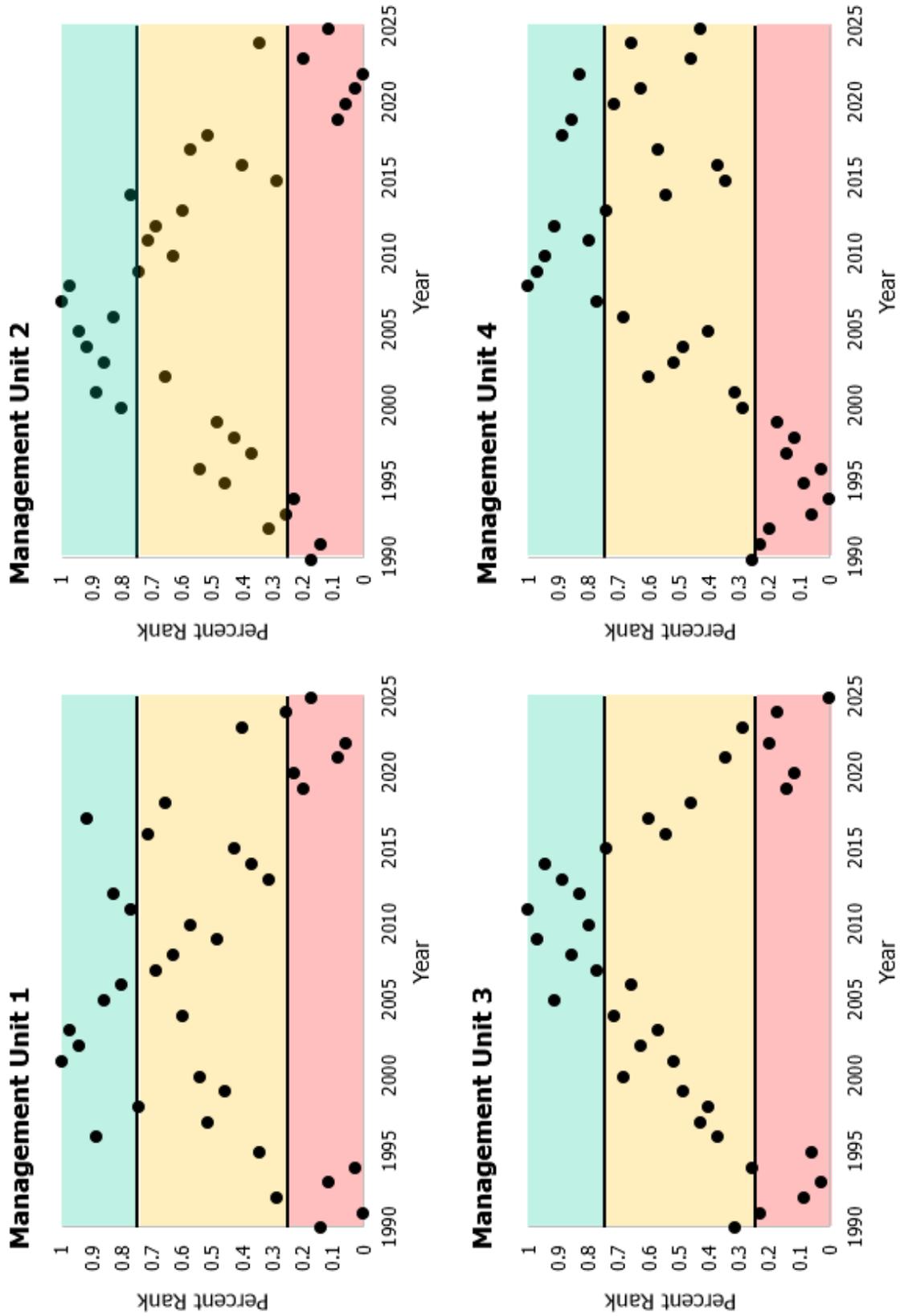
Figure 2.2. Percent Rank value of mean standardized adult harvest and survey metrics from Figure 2.1. The upper horizontal line is the 75th percentile threshold, the lower horizontal line is the 25th percentile threshold.
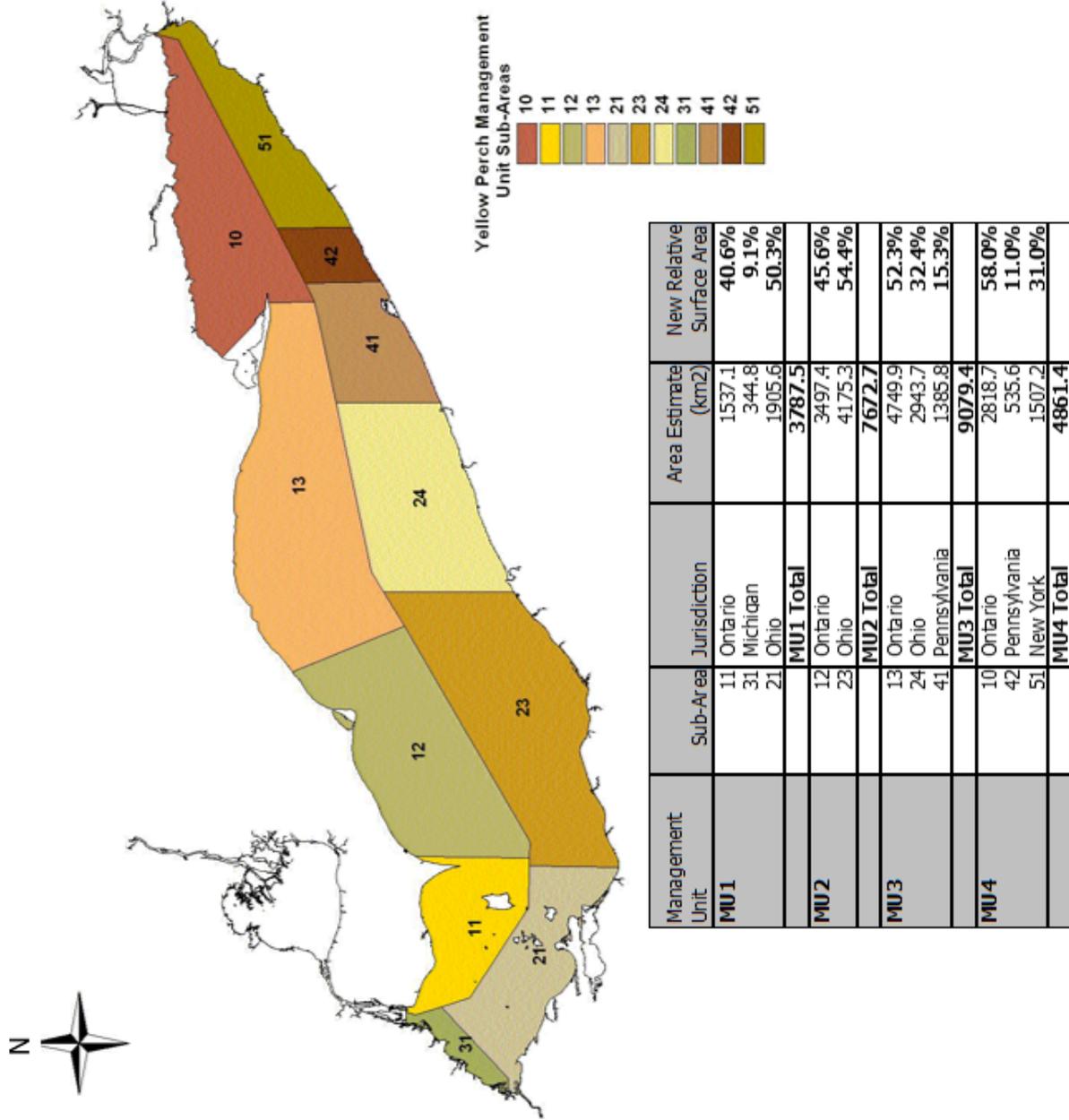
Figure 2.3. Calculations for subunit areas in the Yellow Perch Task Group Management Units.

Yellow Perch Management Unit Sub-Areas

10
11
12
13
21
23
24
31
41
42
51

| Management Unit	Sub-Area	Jurisdiction	Area Estimate (km2)	New Relative Surface Area
MU1	11	Ontario	1537.1	40.6%
	31	Michigan	344.8	9.1%
	21	Ohio	1905.6	50.3%
		MU1 Total	**3787.5**	
MU2	12	Ontario	3497.4	45.6%
	23	Ohio	4175.3	54.4%
		MU2 Total	**7672.7**	
MU3	13	Ontario	4749.9	52.3%
	24	Ohio	2943.7	32.4%
	41	Pennsylvania	1385.8	15.3%
		MU3 Total	**9079.4**	
MU4	10	Ontario	2818.7	58.0%
	42	Pennsylvania	535.6	11.0%
	51	New York	1507.2	31.0%
		MU4 Total	**4861.4**	

Appendix Table 1. Interagency trawl surveys indices. All trawl series are reported in arithmetic mean catch per hectare, all gill net series are in numbers of fish per lift.

Year	OHF10	OHF11	OOS10	OOS11	OHF20B	OHF21B	OHF30B	OHF31B	OHJ21B	OHJ31B	NYF40	NYF41	NYGN41	LPC40	LPC41	OPSF11	OPSF21	OPSF31	OPSF41
1988	.	.	212.6	13.3	.	.	.	.	.	.	.	.	.	105.8	0.4				
1989	.	.	265.4	12.5	.	.	.	.	.	.	.	.	.	82.1	16.4			6.8	76.6
1990	310.1	0.0	259.2	35.2	52.2	23.0	21.2	12.4	216.5	19.7	.	.	.	26.7	5.6	41.3	68.9	29.7	0.6
1991	58.1	0.4	113.3	42.1	9.3	50.0	1.2	19.7	18.5	0.8	.	.	.	17.8	3.2	63.3	56.6	3.8	1.6
1992	90.9	0.7	94.2	16.5	36.3	15.0	31.3	3.3	9.7	5.8	10.7	2.4	.	70.3	4.6	47.5	8.0	5.7	6.3
1993	256.4	3.7	862.5	39.5	10.6	49.0	27.3	12.1	23.3	10.2	113.0	3.1	0.2	30.6	2.6	146.9	112.0	93.2	0.1
1994	287.1	73.1	469.7	62.9	71.9	12.0	16.1	3.4	.	.	49.0	8.6	0.6	34.7	6.2	317.8	22.5	39.7	7.4
1995	82.4	0.1	478.8	113.5	2.8	73.5	14.1	27.5	8.9	0.9	5.9	13.6	0.6	4.3	10.9	362.5	81.3	55.2	9.6
1996	579.3	82.3	2544.9	122.8	129.6	13.2	116.5	3.5	493.9	64.0	105.8	0.3	0.1	33.6	1.1	198.4	70.8	.	.
1997	33.7	104.9	55.2	93.8	11.6	147.3	2.6	40.0	21.5	16.2	0.2	5.7	0.0	4.4	7.1	139.3	350.5	177.9	.
1998	250.9	16.0	170.6	8.2	72.6	6.0	38.1	3.7	402.8	97.3	1.3	0.4	0.0	127.8	1.7	17.5	6.7	6.2	0.0
1999	155.3	47.1	330.0	75.0	68.3	41.8	25.7	41.7	51.4	10.2	35.9	33.3	13.1	16.1	110.0	440.6	107.6	67.9	119.9
2000	41.5	38.0	102.5	113.6	18.2	56.6	1.6	19.4	279.8	4.3	23.9	7.0	3.3	3.6	11.3	106.1	162.4	55.5	36.9
2001	246.3	10.3	398.4	11.3	119.2	5.3	13.6	0.4	239.6	37.7	100.4	11.7	2.2	69.4	2.0	12.9	9.6	1.9	9.5
2002	30.4	86.5	26.4	59.5	3.3	46.1	3.0	51.9	9.5	2.5	9.5	16.0	0.9	1.0	6.6	198.7	245.2	186.6	19.7
2003	1111.6	7.1	1620.8	12.3	136.9	2.9	53.2	1.0	410.3	42.7	484.8	2.0	2.0	222.8	2.3	2.7	2.6	7.2	3.2
2004	9.3	127.7	45.2	240.7	7.7	224.2	1.9	45.2	51.2	19.3	1.5	29.4	2.9	0.1	12.4	976.2	1187.6	332.5	7.6
2005	62.3	2.0	114.8	5.2	43.9	19.2	156.2	132.3	29.7	113.6	59.3	5.6	0.4	124.4	0.1	0.0	2.2	2.5	0.2
2006	121.9	12.5	222.9	12.4	11.3	4.3	18.9	12.5	287.6	281.8	290.6	40.9	32.6	30.1	12.1	15.7	28.5	94.8	129.7
2007	631.5	23.6	444.6	18.8	151.0	20.7	177.8	37.0	303.5	97.2	412.0	42.3	16.1	63.5	7.9	184.4	203.9	202.5	43.4
2008	74.7	15.3	387.2	142.1	32.1	55.0	52.8	26.4	125.9	48.2	1116.7	45.5	16.4	279.4	20.8	333.1	310.6	150.6	87.0
2009	69.4	57.0	136.6	88.4	1.6	20.2	0.5	139.4	29.2	12.1	11.9	64.1	42.4	0.4	10.7	265.2	121.4	190.0	30.6
2010	26.9	17.8	96.9	26.4	41.1	11.9	96.3	12.4	70.8	41.7	197.7	4.2	1.6	51.8	0.2	49.5	18.1	36.2	15.7
2011	12.0	10.0	178.0	25.9	10.3	6.3	15.1	55.5	42.5	76.5	89.5	141.8	105.9	176.7	2.6	158.7	101.8	218.6	95.4
2012	35.0	6.0	68.2	4.0	69.2	7.4	134.4	23.3	84.2	116.2	280.0	16.7	8.0	27.4	2.0	53.1	21.9	48.7	117.8
2013	337.0	3.7	315.6	17.8	8.9	34.9	8.9	109.5	.	.	4.4	24.4	16.0	0.5	0.8	64.1	71.4	152.1	30.4
2014	521.7	17.8	859.6	51.1	37.7	15.4	49.1	24.2	.	.	274.2	2.9	0.9	28.4	0.02	315.0	34.7	16.4	2.2
2015	224.0	53.0	494.3	117.2	19.6	41.3	18.6	30.2	46.5	149.4	68.6	57.3	2.0	58.5	1.6	424.3	66.5	212.7	170.9
2016	146.8	22.9	404.1	33.2	0.5	5.0	1.6	8.7	7.2	17.6	2178.2	53.0	10.4	360.6	91.7	105.6	50.4	35.1	298.2
2017	125.5	1.0	493.7	4.4	19.0	3.7	39.1	7.6	14.9	50.4	247.0	129.5	77.4	65.5	4.4	90.3	65.3	104.8	414.1
2018	429.6	17.4	959.3	21.6	28.4	7.9	50.8	6.6	.	.	662.4	11.4	1.7	328.8	2.9	78.5	28.3	130.2	23.3
2019	161.1	69.8	518.7	95.1	0.2	4.5	6.8	7.4	.	.	169.1	2.5	0.9	227.0	18.9	332.0	42.5	23.7	26.2
2020	99.9	14.2	566.4	22.7	5.7	4.9	3.9	0.6	26.2	22.3	91.6	56.2	17.2	73.7	21.1	93.5	31.7	87.5	314.3
2021	.	.	1358.0	36.7	13.0	13.0	2.2	4.8	13.9	3.7	284.2	33.5	15.3	14.0	8.1	145.9	27.7	96.3	252.2
2022	148.8	40.1	571.5	102.1	3.0	4.8	2.7	2.8	78.2	17.6	297.1	26.8	24.1	40.5	1.6	345.1	33.7	15.0	144.7
2023	151.5	20.5	381.4	41.0	12.9	4.7	3.0	4.5	7.8	4.6	34.5	40.9	4.8	15.8	4.1	84.5	22.9	25.1	16.0
2024	109.9	11.0	673.1	27.4	52.5	5.6	10.8	6.0	12.9	47.4	71.2	10.9	6.9	6.8	2.8	94.0	14.5	125.1	62.6
2025	355.6	23.6	732.7	47.7	14.0	4.7	5.3	2.0	9.0	7.7	93.6	6.6	8.4	288.6	7.5	238.2	13.5	3.8	28.5

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Appendix Table 2. Lakewide recruitment index codes and series names used in Appendix Table 1. All series are reported in arithmetic mean catch per hectare, except LPS41, NYGN41, and OPSF11-41, gill net indices which are reported in mean catch per lift. Abbreviations in Appendix Table 1 ending with a 'B' represent survey indices blocked by depth strata.

Abbreviation	Series
OHF10	Ohio Management Unit 1 fall age 0
OHF11	Ohio Management Unit 1 fall age 1
OOS10	Ontario/Ohio Management Unit 1 summer age 0
OOS11	Ontario/Ohio Management Unit 1 summer age 1
OHF20	Ohio Management Unit 2 fall age 0
OHF21	Ohio Management Unit 2 fall age 1
OHF30	Ohio Management Unit 3 fall age 0
OHF31	Ohio Management Unit 3 fall age 1
OHJ21	Ohio Management Unit 2 June age 1
OHJ31	Ohio Management Unit 3 June age 1
LPC40	Long Point Composite Management Unit 4 age 0
LPC41	Long Point Composite Management Unit 4 age 1
NYF40	New York Management Unit 4 fall trawl age 0
NYF41	New York Management Unit 4 fall trawl age 1
NYGN41	New York Management Unit 4 gill net age 1
OPSF11	Ontario Partnership Gill Net Management Unit 1 fall age 1
OPSF21	Ontario Partnership Gill Net Management Unit 2 fall age 1
OPSF31	Ontario Partnership Gill Net Management Unit 3 fall age 1
OPSF41	Ontario Partnership Gill Net Management Unit 4 fall age 1