YELLOW PERCH TASK GROUP
EXECUTIVE SUMMARY REPORT
MARCH 2025

Lake Erie Committee

REPRESENTING THE FISHERY MANAGEMENT AGENCIES OF LAKE ERIE AND LAKE ST. CLAIR

2024 Fisheries Review

The lakewide total allowable catch (TAC) of Yellow Perch in 2024 was 6.554 million pounds. This allocation was less than a 1% decrease from a TAC of 6.573 million pounds in 2023. For Yellow Perch assessment and allocation, Lake Erie is partitioned into four management units (MUs; Figure 1). The 2024 TAC allocation was 2.861, 0.572, 2.654 and 0.467 million pounds for MUs 1 through 4, respectively. The lakewide harvest of Yellow Perch in 2024 was 3.500 million pounds, or 53% of the total 2024 TAC, which was a 19% decrease from the 2023 harvest of 4.305 million pounds. Harvest from MUs 1 through 4 was 2.057, 0.352, 0.798, and 0.293 million pounds, respectively (Table 1). The portion of TAC harvested was 72%, 62%, 30%, and 63% in MUs 1 through 4, respectively. In 2024, Ontario harvested 2.255 million pounds, followed by Ohio (1.072 million lbs.), Michigan (0.072 million lbs.), Pennsylvania (0.058 million lbs.) and New York (0.043 million lbs.).

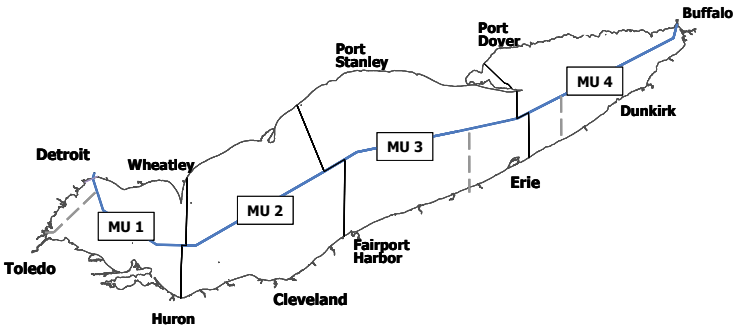

Figure 1. Yellow Perch Management Units (MUs) of Lake Erie

In 2024, targeted (i.e., small mesh) commercial gill net effort in Canadian waters decreased from 2023 effort by 9%, 33% and 5% in MU1, MU3 and MU4, respectively, and was nearly unchanged in MU2. Sport angling effort in U.S. waters during 2024 was highest in MU1 and lowest in MU3. Angler effort in 2024 increased 699% in MU2 and by 143% in MU3, while it decreased 43% in both MU1 and MU4 compared to 2023. Although angler effort went up a large percentage in MU2 and MU3, angling effort in U.S. waters of these management units were still low for the time series. Fishing effort by jurisdiction and gear type is presented in Table 2.

Ontario targeted commercial gill net harvest rates in 2024 increased by 28% and 12% relative to 2023 rates in MU1 and MU2, respectively, while decreasing in MU3 by 12% and MU4 by 22%. Trends in angling harvest rates (fish harvested per angler hour) for 2024 compared to 2023 were not consistent across states within MUs. Harvest per angler hour decreased in both Michigan (-32%) and Ohio (-19%) waters of MU1. In the central basin, the sport angler harvest rate increased in the Ohio waters of MU2 (+17%) although the rate of 0.8 fish/hour is still one of the lowest in the time series. In MU3, the sport harvest rate in Ohio waters decreased (69%) and was the second lowest catch rate in the time series, while increasing in Pennsylvania (900%) waters of MU3 from the lowest value observed in 2023. In MU4, harvest rates increased slightly in New York waters (2%) while declining 55% in Pennsylvania waters. In 2024, trap net harvest rates in U.S. waters increased from 2023 rates by 22% in MU2 and 5% in MU4 and decreased 2% in MU1 and 14% in MU3.

Table 1. Lake Erie Yellow Perch harvest by jurisdiction (pounds) and gear type for 2024.

MU	Harvest by jurisdiction (lbs)								Total (lbs)
	Michigan	Ontario	Ohio		Pennsylvania		New York		
	sport	all commercial*	sport	commercial trap net	sport	commercial trap net	sport	commercial trap net	
1	71,968	1,181,781	366,987	436,029					2,056,765
2		247,363	27,227	77,788					352,378
3		578,286	6,921	156,864	2,777	52,808			797,656
4		247,988			1,948	0	31,709	11,686	293,331
Total	71,968	2,255,418	401,135	670,681	4,725	52,808	31,709	11,686	3,500,130

* small mesh, large mesh, trap net and trawl harvest combined

Table 2. Lake Erie Yellow Perch fishing effort by jurisdiction and gear type for 2024.

MU	Effort by jurisdiction							
	Michigan	Ontario	Ohio		Pennsylvania		New York	
	sport (angler hours)	commercial (km gill net)*	sport (angler hours)	commercial (trap net lifts)	sport (angler hours)	commercial (trap net lifts)	sport (angler hours)	commercial (trap net lifts)
1	91,154	6,542	493,672	7,169				
2		1,591	32,063	285				
3		3,955	7,903	1,648	3,719	203		
4		1,570			2,305	0	16,672	172
Total	91,154	13,659	533,638	9,102	6,024	203	16,672	172

*small mesh effort only

Abundance Estimate for 2025

Population size for 1975 to 2024 for each MU was estimated by statistical catch-at-age analysis (SCAA). The SCAA model incorporates a recruitment index that is used to project total abundance estimates to 2025. Using the model, 2025 age-2-and-older Yellow Perch abundances are projected to decrease by 12%, 8%, and 19% in MU1, MU2, and MU4, respectively, relative to the 2024 abundance estimates and increase 35% in MU3. The 2025 Age-2-and-older Yellow Perch abundance projections are 39.926, 42.303, 66.633, and 6.584 million fish in management units 1 through 4, respectively. Using mean weight-at-age information from assessment surveys, 2025 age-2-and-older biomasses are projected to decrease in management units 1,2 and - 4 by 18%, 6%, and 2%, respectively, compared to 2024 estimates while increasing by 15% in management unit 3.

Recommended Allowable Harvest (RAH) for 2025

Harvest control rules (HCR) are comprised of:

- Target fishing mortality as a percent of the fishing mortality at maximum sustainable yield (F_{msy})
- Limit reference point of the biomass at maximum sustainable yield (B_{msy})
- Probabilistic risk tolerance, P*=0.20
- A limit on the annual change in TAC of ± 20% (when $P(SSB \leq B_{msy}) < P^*$)

Target fishing rates and limit reference points are estimated annually using results from the SCAA models. Limit reference points and target fishing rates for each management unit are presented in Table 3. Target fishing rates are reduced when the probability of the projected spawning stock biomass being equal to or less than the limit reference point (B_{msy}) is greater than 0.20 (P*). Fishing rates are applied to population estimates and their standard errors, to determine minimum, mean, and maximum RAH values for each management unit (Table 4).

In 2025, the P value in MU2 is 0.11, marking the second year that MU2 has not invoked the P* rule since the YPMP took effect in 2019. However, there is evidence of retrospective patterns in SCAA abundance estimates. Also, there are poor status indicators in MU2 and no evidence of a large year class recruiting to the fishery. Sixty-seven percent of the 2024 harvest was dominated by 1 year class (2021, age 3) and this one age class will continue to be the main fishable biomass in 2025. Therefore, a precautionary approach is warranted in MU2, and the YPTG recommends holding the 2025 MU2 TAC near the 2024 level (0.572 million pounds).

Table 3. Parameters used in the harvest control rule 2025. F actual may be reduced from F target if $P(SSB \leq Bmsy) \geq P^*$.

MU	Spawning Stock Biomass			Limit Reference Point		Fishing Rate			
	SSB_0	2025	2026 [(a)]	B_{msy}	P	F_{msy}	% F_{msy}	F_{target}	F_{actual}
MU1	10,914,000	3,517,270	4,279,540	2,817,003	0.06	0.99	28%	0.277	0.277
MU2	15,036,800	6,812,250	5,766,460	4,199,609	0.11	1.58	35%	0.553	0.553
MU3	14,032,300	5,810,740	6,634,030	3,872,039	0.03	1.63	32%	0.522	0.522
MU4	1,798,920	1,109,890	910,829	512,499	0.01	1.57	34%	0.534	0.534

(a) Spawning stock biomass (kg) when population is fished at target fishing rate.

Table 4. Lake Erie Yellow Perch fishing rates and RAH (in millions of pounds) for 2025 by management unit.

MU	Fishing Rate	Recommended Allowable Harvest (millions lbs.)		
		MIN	MEAN	MAX
1	0.277	1.126	1.514	1.900
2			see text	
3	0.522	1.793	2.228	2.660
4	0.534	0.372	0.482	0.592

The complete YPTG report is available from the GLFC's Lake Erie Committee Yellow Perch Task Group website at: http://www.glfc.org/lake-erie-committee.php, or upon request from an LEC, Standing Technical Committee (STC), or YPTG representative.