



## Summary of 2015 Lake Trout and Salmonid Stocking in Lake Michigan

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This summary provides a brief synopsis of salmonid stocking trends in Lake Michigan, and more detailed information on 2015 lake trout stocking rates that are prescribed in *A Fisheries Management Implementation Strategy for the Rehabilitation of Lake Trout in Lake Michigan* (Dexter et al. 2011). All stocking records used in this report were obtained from the Great Lakes Fishery Commission's fish stocking database that serves as a repository for federal, provincial, state, and tribal fish stocking events throughout Great Lakes waters. This database contains agency provided records dating back to the 1950's and is available online at: <http://www.glfco.org/fishstocking/>. The content in the database is managed by the USFWS Green Bay FWCO; contact Dale Hanson ([dale\\_hanson@fws.gov](mailto:dale_hanson@fws.gov)) for more information.

**Lakewide salmonid trends:**

**Chinook:** Stocking reductions for Chinook salmon were initiated in 1999, 2006, and again in 2013 to reduce the predation pressure on the alewife prey base. In 2015, 1.79 million Chinook were stocked in the lake. Michigan reduced Chinook stocking in 2015 by roughly 2/3 of their 2006 – 2012 mean while other states cut stocking to a lesser degree (5 – 24%).

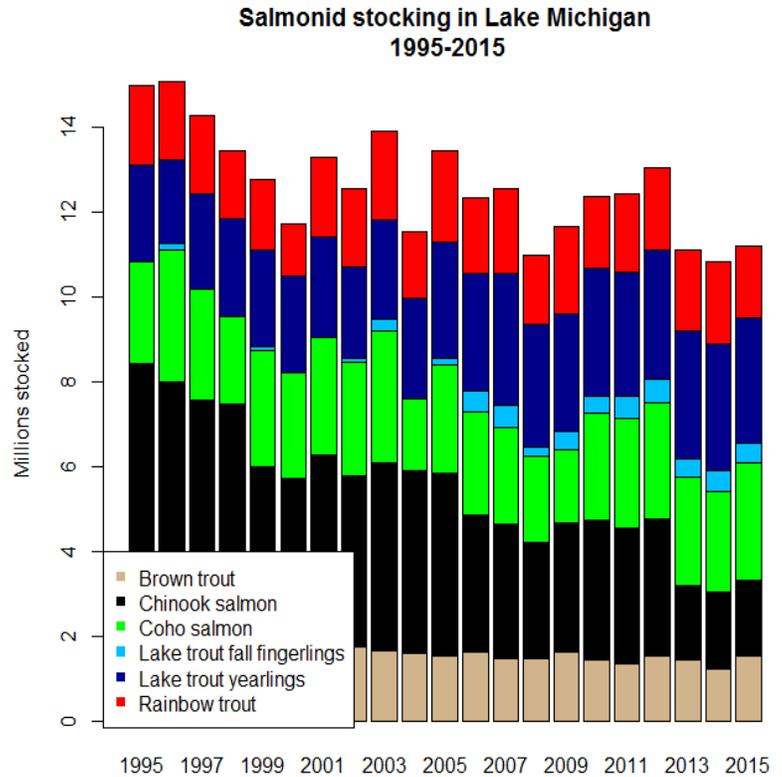
**Brown trout:** 1.54 million brown trout were stocked lakewide in 2015 which was 11% higher than the previous 5 year mean; more browns were stocked in Michigan and Wisconsin waters relative to recent years.

**Lake trout:** At this time lake trout stocking is guided by an interim maximum stocking target of 2.74 (± 10%) million equivalents until Federal hatchery production is capable of achieving higher stocking rates and the Lake Committee reaches consensus, informed by decision support tools and information, to increase stocking to the Strategy’s prescribed target of 3.53 million equivalents. In 2015, stocking of 3.17 million yearling equivalents exceeded the interim target range by 5%. In 2016, fall fingerling stockings will be suspended to reduce stocking rates back to the interim target range.

**Rainbow trout:** Stocking has remained consistent over the years and 1.69 million rainbows were stocked lakewide in 2015.

**Coho salmon:** Lakewide 2.76 million Coho were stocked in 2015, a slight increase compared to recent years. More than twice the amount of Coho were stocked in Indiana streams compared to 2014.

Figure 1. Trends in stocking for the primary species of trout and salmon in Lake Michigan. Chart data (in millions) is provided in the accompanying table below.



	BNT	CHS	COS	LAT.ff	LAT.y	RBT	Total
1995	1.88	6.55	2.40	0.00	2.26	1.88	14.97
1996	1.79	6.19	3.11	0.14	1.97	1.85	15.06
1997	1.80	5.74	2.62	0.00	2.24	1.86	14.27
1998	1.74	5.72	2.06	0.00	2.30	1.62	13.44
1999	1.65	4.32	2.76	0.07	2.27	1.68	12.77
2000	1.67	4.05	2.50	0.00	2.26	1.24	11.72
2001	1.75	4.52	2.77	0.00	2.38	1.85	13.26
2002	1.75	4.02	2.69	0.09	2.14	1.86	12.54
2003	1.65	4.42	3.12	0.25	2.35	2.08	13.88
2004	1.60	4.30	1.69	0.00	2.35	1.58	11.53
2005	1.52	4.31	2.56	0.14	2.75	2.17	13.45
2006	1.61	3.25	2.43	0.49	2.77	1.79	12.34
2007	1.47	3.17	2.27	0.52	3.10	2.00	12.54
2008	1.47	2.73	2.03	0.24	2.88	1.62	10.96
2009	1.63	3.02	1.75	0.41	2.77	2.07	11.64
2010	1.43	3.29	2.52	0.43	3.00	1.68	12.34
2011	1.34	3.22	2.57	0.53	2.93	1.83	12.41
2012	1.52	3.24	2.74	0.55	3.05	1.93	13.04
2013	1.44	1.76	2.55	0.42	3.02	1.91	11.09
2014	1.22	1.81	2.38	0.48	3.00	1.93	10.82
2015	1.54	1.79	2.76	0.46	2.99	1.69	11.18

**Lake trout tagging and stocking locations:**

Per the *Implementation Strategy*, roughly 2/3 of the lake trout are stocked offshore in 1<sup>st</sup> Priority areas for rehabilitation efforts. These areas include reefs within the Northern Refuge (West Beaver, East Beaver, and Charlevoix Reef Complex groupings) and the Southern Refuge. The remaining 1/3 are stocked in 2<sup>nd</sup> Priority nearshore areas to support both recreational fisheries and rehabilitation efforts (Map 1).

Since 2010 all stocked lake trout have been marked with an adipose clip and a coded wire tag was implanted in the fish's snout. For yearling lake trout a unique CWT code was used for each lake trout strain, and stocking location. All 1<sup>st</sup> Priority sites have distinct CWTs as do all 2<sup>nd</sup> priority sites within each statistical district. Fall fingerlings are marked with a CWT code designating whether fish were planted on either the eastern or western shore of Lake Michigan. This tagging scheme was designed to facilitate analysis of the better performing strains and stocking locations from subsequent recoveries in assessment surveys, and commercial and recreational fisheries.

In 2015, 1.47 million lake trout were stocked in the Northern 1<sup>st</sup> Priority sites and 0.74 million yearlings in the Southern Refuge 1<sup>st</sup> Priority sites. Nearshore areas (2<sup>nd</sup> Priority) received an additional 0.73 million yearlings and 0.46 million fall fingerlings. Lake trout stocking data showing locations, strains, and CWT numbers are provided in Table 2.

Map 1. First and 2nd priority areas as described in A *Fisheries Management Implementation Strategy for the Rehabilitation of Lake Trout in Lake Michigan* (Dexter et al. 2011). Northern and Southern Refuges are indicated with shading and the gray lines subdivide the lake into statistical districts.

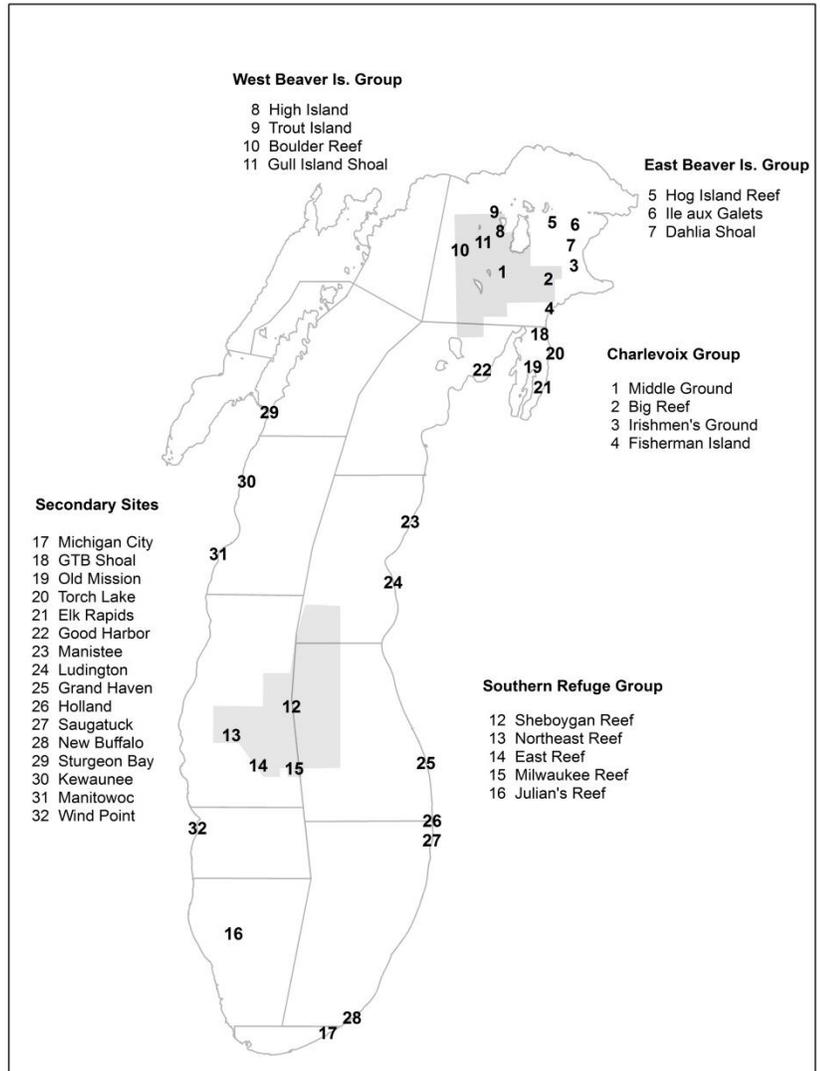


Table 2. Total number of USFWS lake trout yearlings (Y) and fall fingerlings (FF) stocked in each priority stocking area within Lake Michigan in 2015. Strains stocked include Lewis Lake (LLW), Parry Sound (HPW), Seneca Lake (SLW), and Klondike Reef (SKW).

Priority and Group Area	Stocking Site	Grid	Number Stocked	Strain	Life-Stage	CWT No.	Off/on shore
<b>First Priority</b>							
<b>Northern Refuge</b>							
West Beaver Group	Boulder Reef	413	41,126	HPW	Y	640609	Off
	Boulder Reef	413	41,293	LLW	Y	640618	Off
	Boulder Reef	413	41,060	SLW	Y	640625	Off
	Gull Island Shoal	413	41,297	HPW	Y	640608	Off
	Gull Island Shoal	413	41,143	LLW	Y	640615	Off
	Gull Island Shoal	413	41,286	SLW	Y	640623	Off
	High Island	314	41,094	HPW	Y	640607	Off
	High Island	314	41,110	LLW	Y	640616	Off
	High Island	314	41,257	SLW	Y	640624	Off
	Trout Island	314	41,425	HPW	Y	640610	Off
	Trout Island	314	41,019	LLW	Y	640617	Off
	Trout Island	314	41,214	SLW	Y	640626	Off
<b>Northern Refuge</b>							
East Beaver Group	Dahlia Shoal	417	68,923	HPW	Y	640637	Off
	Dahlia Shoal	417	68,938	LLW	Y	640636	Off
	Dahlia Shoal	417	68,875	SLW	Y	640632	Off
	Hog Island Reef	317	68,516	HPW	Y	640630	Off
	Hog Island Reef	317	58,185	LLW	Y	640634	Off
	Hog Island Reef	317	68,807	SLW	Y	640629	Off
	Ile aux Galets	317	69,563	HPW	Y	640633	Off
	Ile aux Galets	317	68,724	LLW	Y	640635	Off
	Ile aux Galets	317	68,732	SLW	Y	640631	Off
<b>Northern Refuge</b>							
Charlevoix Group	Big Reef	516	41,153	HPW	Y	640612	Off
	Big Reef	516	41,082	LLW	Y	640614	Off
	Big Reef	516	41,041	SLW	Y	640621	Off
	Irishmen's Ground	517	40,957	HPW	Y	640627	Off
	Irishmen's Ground	517	41,357	LLW	Y	640619	Off
	Irishmen's Ground	517	41,260	SLW	Y	640628	Off
	Middle Ground	514	41,168	HPW	Y	640611	Off
	Middle Ground	514	41,041	LLW	Y	640613	Off
	Middle Ground	514	41,054	SLW	Y	640622	Off
	<b>First Priority</b>						
	<b>Northern Refuge Subtotal</b>		1,473,700		Y		

Southern Refuge

Julian's Reef	2403	61,996	LLW	Y	640672	Off
Julian's Reef	2403	62,133	SLW	Y	640671	Off
Northeast Reef	1803	206,333	SKW	Y	640643	Off
Northeast Reef	1803	103,673	SLW	Y	640639	Off
Sheboygan Reef	1706	310,211	SLW	Y	640674	Off
<b>First Priority</b>						
<b>Southern Refuge Subtotal</b>		744,346		Y		

Second Priority Areas

IN Michigan City	2707	132,774	LLW	FF	640580	On
IN Michigan City	2707	41,344	LLW	Y	640620	On
MM4 Elk Rapids	816	95,000	LLW	Y	640667	Off
MM4 GTB Shoal	716	58,156	LLW	Y	640667	Off
MM4 Old Mission	716	74,919	LLW	Y	640667	Off
MM4 Torch Lake	716	91,181	LLW	Y	640667	Off
MM5 Good Harbor	814	102,651	SLW	Y	640642	Off
MM5 Point Betsie	911	102,187	LLW	Y	640641	Off
MM6 Ludington CGS	1410	41,929	LLW	Y	640668	On
MM6 Manistee Harbor	1210	40,208	LLW	Y	640668	On
MM7 Grand Haven	1911	110,689	SLW	FF	640580	On
MM8 New Buffalo	2708	101,281	LLW	FF	640580	On
WM3 Sturgeon Bay CGS	905	50,206	HPW	Y	640673	On
WM4 Manitowoc	1303	81,304	HPW	FF	640833	On
WM4 Manitowoc	1303	28,956	LLW	FF	640833	On
WM6 Wind Point Bender Park	2102	28,420	HPW	Y	640673	On
<b>Secondary Zone Subtotals</b>		726,201		Y		
		455,004		FF		
<b>All Zones Total Stocked</b>		2,944,247		Y		
		455,004		FF		

3,399,251 All stages