



## Summary of 2014 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 2014 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 2014, 1.8 million Chinook were stocked in the lake. Michigan reduced Chinook stocking in 2014 by roughly 2/3 of their 2006 – 2012 mean while other states cut stocking to a lesser degree (5 – 24%).

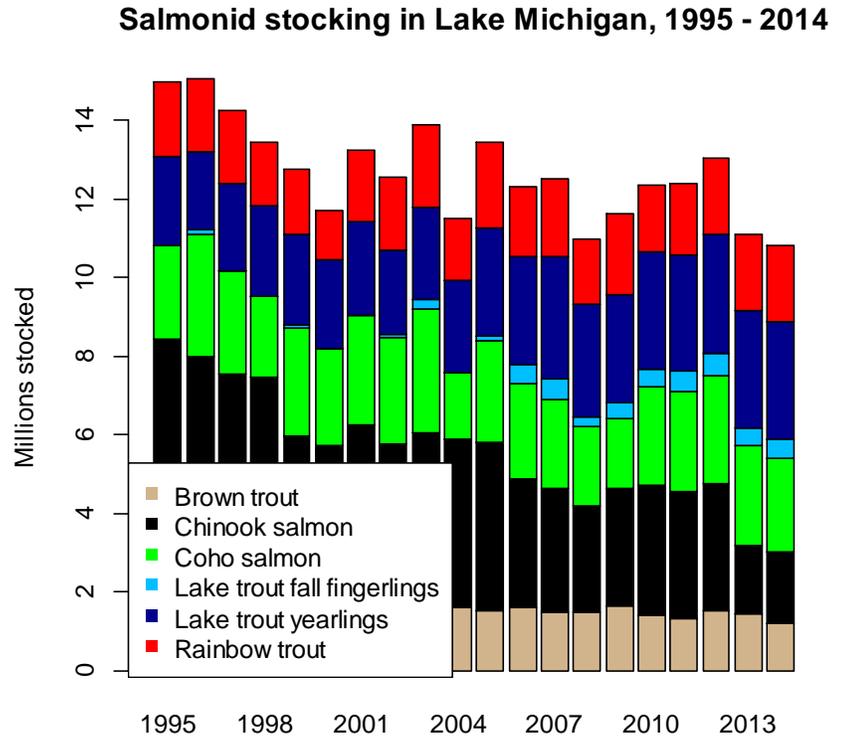
**Brown trout:** 1.2 million brown trout were stocked lakewide in 2014 which was 83% of the previous 5 year mean; fewer browns were stocked in Michigan and Wisconsin waters relative to recent years.

**Lake trout:** Since 2007 the numbers of lake trout stocked have trended upward and are approaching the levels (3.53 million yearling equivalents) agreed to in the Fisheries Management Implementation Strategy for the Rehabilitation of Lake Trout in Lake Michigan (Dexter et al. 2011). In 2014, 3.19 million yearling equivalents were stocked (each fall fingerling equates to 0.4 yearling equivalents).

**Rainbow trout:** Stocking has remained consistent over the years and 1.9 million rainbows were stocked lakewide in 2014; 42% of these were planted in Indiana streams.

**Coho salmon:** Lakewide 2.38 million Coho were stocked in 2014, a slight decline compared to recent years. Seventy percent fewer Coho were stocked in Indiana streams compared to 2013.

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

**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 2014, 1.48 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 roughly 0.5 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.

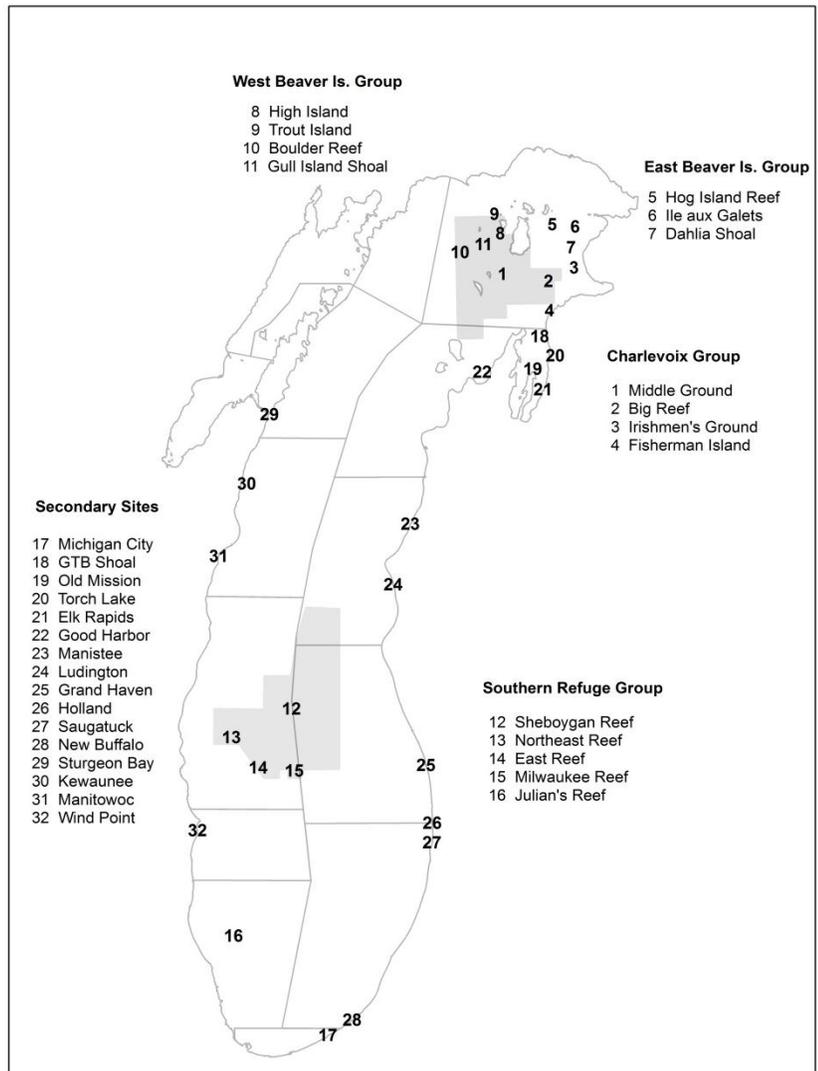


Table 2. Total number of USFWS lake trout yearlings (Y) and fall fingerlings (FF) stocked in each priority stocking area within Lake Michigan in 2014. Strains stocked include Lewis Lake (LLW), Parry Sound (HPW), Seneca Lake (SLW), and Klondike Reef (SKW).

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	41,206	HPW	Y	640556	Off
	Boulder Reef	413	40,423	LLW	Y	640546	Off
	Boulder Reef	413	41,290	SLW	Y	640549	Off
	Gull Island Shoal	414	42,891	HPW	Y	640561	Off
	Gull Island Shoal	414	41,330	LLW	Y	640547	Off
	Gull Island Shoal	414	40,923	SLW	Y	640548	Off
	High Island	314	40,911	HPW	Y	640558	Off
	High Island	314	41,049	LLW	Y	640545	Off
	High Island	314	40,816	SLW	Y	640550	Off
	Trout Island	314	41,137	HPW	Y	640554	Off
	Trout Island	314	41,029	LLW	Y	640543	Off
	Trout Island	314	41,396	SLW	Y	640553	Off
<b>Northern Refuge</b>							
East Beaver Group	Dahlia Shoal	417	68,706	HPW	Y	640533	Off
	Dahlia Shoal	417	68,100	LLW	Y	640531	Off
	Dahlia Shoal	417	67,019	SLW	Y	640534	Off
	Hog Island Reef	317	69,033	HPW	Y	640528	Off
	Hog Island Reef	317	68,685	LLW	Y	640530	Off
	Hog Island Reef	317	68,325	SLW	Y	640535	Off
	Ile aux Galets	317	69,435	HPW	Y	640532	Off
	Ile aux Galets	317	68,796	LLW	Y	640529	Off
	Ile aux Galets	317	68,762	SLW	Y	640536	Off
<b>Northern Refuge</b>							
Charlevoix Group	Big Reef	516	40,704	HPW	Y	640557	Off
	Big Reef	516	40,645	LLW	Y	640544	Off
	Big Reef	516	41,241	SLW	Y	640551	Off
	Irishmen's Ground	517	41,955	HPW	Y	640567	On
	Irishmen's Ground	517	40,887	LLW	Y	640542	Off
	Irishmen's Ground	517	41,164	SLW	Y	640568	On
	Middle Ground	514	40,832	HPW	Y	640541	Off
	Middle Ground	514	40,958	LLW	Y	640555	Off
	Middle Ground	514	41,291	SLW	Y	640552	Off
	<b>First Priority</b>						
	<b>Northern Refuge Subtotal</b>		1,480,939		Y		

Southern Refuge

Julian's Reef	2403	61,711	LLW	Y	640578	Off
Julian's Reef	2403	62,073	SLW	Y	640574	Off
Northeast Reef	1803	206,486	SKW	Y	640569	Off
Northeast Reef	1803	103,006	SLW	Y	640570	Off
Sheboygan Reef	1706	310,388	SLW	Y	640525	Off
<b>First Priority</b>						
<b>Southern Refuge Subtotal</b>		743,664		Y		

Second Priority Areas

IN Michigan City	2707	54,113	LLW	FF	640682	On
IN Michigan City	2707	41,707	LLW	Y	640540	On
MM4 Elk Rapids	816	88,640	LLW	Y	640537	Off
MM4 GTB Shoal	716	51,822	LLW	Y	640537	Off
MM4 Old Mission	716	79,431	LLW	Y	640537	Off
MM4 Torch Lake	716	87,219	LLW	Y	640537	Off
MM5 Good Harbor	814	102,567	SLW	Y	640538	Off
MM5 Point Betsie	911	101,340	LLW	Y	640559	Off
MM6 Ludington CGS	1410	41,605	LLW	Y	640560	On
MM6 Manistee Harbor	1210	39,786	LLW	Y	640560	On
MM7 Grand Haven	1911	111,756	SLW	FF	640682	On
MM8 New Buffalo	2708	97,245	LLW	FF	640682	On
MM8 South Haven	2311	102,907	SLW	FF	640638	On
WM3 Sturgeon Bay CGS	905	50,000	SLW	Y	640573	On
WM4 Kewaunee	1104	15,000	SLW	Y	640573	On
WM6 Wind Point Shoal	2102	36,900	LLW	FF	640640	On
WM6 Wind Point Shoal	2102	74,940	SLW	FF	640640	On
WM6 Wind Point Bender Park	2102	27,810	SLW	Y	640573	On
<b>Secondary Zone Subtotals</b>		726,927		Y		
		477,861		FF		

<b>All Zones Total Stocked</b>		477,861		FF		
		2,951,530		Y		
		3,429,391		All stages		

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