

Lake Michigan Committee Meeting  
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## Stocking Summary for Lake Michigan 1976-2008

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Nearly twelve million trout and salmon were stocked in Lake Michigan during 2008. This level of stocking is similar to last year and is consistent with management objectives to reduce predator demands on the Lake Michigan forage base and yet rehabilitate lake trout populations. In 2006 Lake Michigan managers enacted a 25% stocking reduction for chinook salmon in response to the record low levels of forage fish, and in particular alewife, biomass. Under this paradigm 2.7 million chinook were stocked in 2008 compared to the previous 10 year average of 3.9 million. Stocking supplements natural reproduction which accounts for roughly half of the chinook salmon in Lake Michigan.

The *Guide for the Rehabilitation of Lake Trout in Lake Michigan* outlines the future direction for lake trout restoration, though to date it has not been ratified by all four states. In general, the guide calls for increased stocking rates up to 3.7 million yearlings within Priority One areas which consist of offshore reefs with good habitat and relatively low mortality. In 2008, the US Fish and Wildlife Service stocked over 1.9 million lake trout yearlings in Priority One offshore reefs, while one million yearlings and over 500,000 fall fingerlings were also stocked in near-shore areas to meet Consent Decree of 2000 obligations and to enhance recreational fishery opportunities.

This report contains the time-series for numbers of trout and salmon stocked in Lake Michigan since 1976 (Tables 1), numbers stocked by each state agency (Tables 2 – 5), and number of lake trout yearlings stocked by the US Fish and Wildlife Service within each management area (Table 6). The distribution of lake trout stocked in 2008 is reported by each priority area (Table 7). The information from this report can be accessed in the Great Lakes Fish Stocking database (GLFSD) which contains all reported fish stocking events in the Great Lakes since the 1950's. Information including the number stocked, strain, health, origin, stocking location, and tagging information for each stocking event is submitted by state, tribal, and federal entities. The GLFSD is updated annually, by April 1<sup>st</sup>, and users can access data online from the Great Lakes Fishery Commission website at: <http://www.glfsc.org/fishstocking/>.

Table 1. Millions of salmonids, fingerling and yearling stages combined, stocked in Lake Michigan between 1976 and 2008.

	Atlantic Salmon	Brook Trout	Brown Trout	Chinook Salmon	Coho Salmon	Lake Trout	Rainbow Trout	Splake	Total
1976	0.020	0.075	1.129	3.317	3.196	2.548	1.863	0.000	12.148
1977	0.019	0.643	1.160	2.977	3.087	2.418	1.312	0.000	11.616
1978	0.046	0.248	1.503	5.365	2.685	2.539	1.933	0.000	14.319
1979	0.000	0.196	1.228	4.984	4.044	2.497	2.589	0.000	15.538
1980	0.000	0.204	1.292	6.106	2.943	2.791	2.630	0.000	15.967
1981	0.020	0.208	1.169	4.747	2.451	2.642	1.971	0.000	13.208
1982	0.045	0.259	2.139	6.312	2.181	2.746	2.525	0.000	16.207
1983	0.000	0.300	2.180	6.539	2.364	2.241	2.595	0.000	16.219
1984	0.000	0.233	1.803	7.710	2.954	1.565	3.111	0.034	17.410
1985	0.000	0.307	1.798	5.956	3.181	3.782	1.825	0.054	16.903
1986	0.000	0.197	1.434	5.693	2.291	3.297	2.222	0.115	15.249
1987	0.000	0.117	1.341	5.801	2.305	1.998	1.831	0.018	13.411
1988	0.017	0.466	1.516	5.417	3.210	9.254	1.429	0.104	14.706
1989	0.060	0.150	1.504	7.859	2.334	5.377	1.845	0.088	19.217
1990	0.000	0.400	1.772	7.129	2.380	1.317	1.600	0.050	14.648
1991	0.000	0.326	1.383	6.238	2.471	2.779	1.975	0.396	15.568
1992	0.000	0.272	1.615	5.795	2.712	3.435	1.689	0.099	15.618
1993	0.000	0.294	1.759	5.530	1.709	2.697	1.680	0.141	13.809
1994	0.000	0.269	2.172	5.837	1.497	3.854	2.220	0.166	16.015
1995	0.000	0.328	1.876	6.549	2.401	2.265	1.878	0.151	15.448
1996	0.000	0.180	1.787	6.193	3.112	2.141	1.849	0.201	15.463
1997	0.000	0.115	1.804	5.745	2.620	2.235	1.864	0.155	14.538
1998	0.000	0.408	1.742	5.721	2.059	2.302	1.618	0.097	13.948
1999	0.000	0.191	1.649	4.324	2.765	2.348	1.680	0.077	13.034
2000	0.000	0.045	1.666	4.049	2.499	2.260	1.244	0.079	11.842
2001	0.000	0.102	1.749	4.518	2.765	2.382	1.849	0.131	13.495
2002	0.000	0.050	1.754	4.015	2.690	2.224	1.861	0.126	12.721
2003	0.000	0.024	1.649	4.422	3.124	2.609	2.078	0.104	14.010
2004	0.000	0.001	1.601	4.303	1.687	2.354	1.583	0.122	11.651
2005	0.000	0.000	1.523	4.306	2.561	2.887	2.170	0.099	13.546
2006	0.000	0.001	1.611	3.253	2.430	2.770	1.788	0.166	12.018
2007	0.000	0.000	1.487	3.173	2.269	3.624	2.010	0.125	12.167
2008	0.000	0.005	1.550	2.724	2.029	3.415	1.761	0.087	11.571
10 year mean	0.000	0.042	1.624	3.909	2.482	2.687	1.802	0.112	12.606

Table 2. Number of fingerling and yearling salmonids, excluding USFWS stocked lake trout, stocked in Wisconsin waters of Lake Michigan, 1976 – 2008.

Year	Brook trout	Brown trout	Chinook salmon	Coho salmon	Lake trout	Rainbow trout	Splake
1976	6,900	298,200	1,190,500	666,800	0	999,600	0
1977	643,400	802,200	912,600	491,300	0	682,900	0
1978	242,600	1,208,100	2,017,100	499,300	0	612,600	0
1979	187,300	959,500	1,963,800	319,900	0	1,211,300	0
1980	184,900	1,046,500	2,429,500	491,900	0	1,136,800	0
1981	199,900	1,014,200	1,848,300	318,500	0	996,800	0
1982	259,000	1,820,700	2,520,700	216,000	49,400	1,041,600	0
1983	300,200	1,554,800	2,791,700	356,500	31,500	1,467,800	0
1984	225,000	1,184,900	2,891,900	551,500	20,400	1,380,800	34,200
1985	307,100	1,170,100	2,740,800	1,044,200	0	415,100	54,500
1986	188,300	882,900	2,377,600	267,200	76,000	782,400	115,000
1987	94,800	836,800	2,263,500	624,400	0	542,200	0
1988	466,500	1,020,900	1,409,300	1,019,900	0	291,300	28,900
1989	150,100	972,700	2,713,900	511,300	0	495,300	0
1990	315,100	1,229,100	2,379,300	498,400	0	460,600	0
1991	326,100	981,500	1,734,600	402,800	0	586,900	147,000
1992	272,400	1,228,600	1,523,100	568,500	0	569,400	43,800
1993	294,100	1,333,300	1,600,100	0	0	679,200	40,000
1994	268,600	1,261,100	1,548,600	457,200	0	798,300	71,700
1995	328,000	1,325,100	1,901,400	722,100	0	553,400	0
1996	167,800	1,301,100	1,727,000	563,600	0	565,900	69,900
1997	114,500	1,279,800	1,917,100	514,700	0	570,000	40,000
1998	407,800	1,242,800	1,591,500	504,900	0	533,100	22,000
1999	190,700	1,181,300	1,308,800	520,200	0	521,400	26,700
2000	44,600	1,056,300	1,010,800	253,700	0	197,900	0
2001	101,500	1,257,600	1,502,600	512,800	0	641,700	54,500
2002	50,400	1,211,800	1,419,300	595,500	0	545,500	28,500
2003	23,900	1,080,500	1,511,200	540,100	0	758,300	22,100
2004	0	1,021,700	1,502,900	484,800	0	430,600	43,900
2005	0	952,100	1,475,500	516,000	0	553,900	16,300
2006	1,000	1,009,300	1,166,200	387,600	0	578,400	80,100
2007	0	1,011,000	1,112,600	610,100	0	714,800	44,300
2008	0	966,300	724,500	282,900	0	536,500	0
10 year mean	41,200	1,074,800	1,273,400	470,400	0	547,900	31,600

Table 3. Number of fingerling and yearling salmonids, excluding USFWS stocked lake trout, stocked in Illinois waters of Lake Michigan, 1976 – 2008.

Year	Brook trout	Brown trout	Chinook salmon	Coho salmon	Lake trout	Rainbow trout
1976	6,400	94,300	142,000	80,300	0	45,300
1977	0	42,200	346,700	102,700	0	276,200
1978	5,000	13,400	611,400	278,800	0	39,800
1979	8,300	1,000	183,100	289,400	0	215,400
1980	19,500	23,800	152,200	39,000	0	112,900
1981	0	65,100	430,600	323,800	0	186,400
1982	0	18,300	793,300	158,700	0	170,000
1983	0	50,900	533,600	0	0	0
1984	0	88,500	537,800	276,800	0	164,700
1985	0	114,700	195,000	304,600	135,500	146,300
1986	0	59,300	215,000	312,200	111,000	151,900
1987	0	88,500	539,100	187,100	25,000	89,000
1988	0	94,700	456,800	297,300	66,500	116,100
1989	0	105,500	650,400	99,700	27,200	110,500
1990	0	0	479,400	302,600	0	0
1991	0	113,900	496,300	312,700	0	133,700
1992	0	100,100	352,700	308,600	0	105,300
1993	0	105,100	364,200	117,800	0	182,100
1994	0	100,500	285,600	328,000	0	74,600
1995	0	98,200	362,700	308,200	0	99,100
1996	0	85,200	365,400	305,600	0	102,100
1997	0	90,100	360,100	302,300	0	91,700
1998	0	100,000	366,200	305,800	0	103,000
1999	0	102,700	304,600	301,600	0	84,700
2000	0	100,000	305,700	302,300	0	100,000
2001	0	72,300	304,000	300,900	0	87,600
2002	0	100,000	305,300	301,000	0	106,500
2003	0	100,000	299,500	244,100	0	126,900
2004	0	70,000	302,700	300,100	0	112,700
2005	0	100,200	295,200	301,000	0	111,400
2006	0	57,600	251,600	304,200	0	105,200
2007	0	100,600	252,300	301,400	0	117,300
2008	0	100,100	254,000	282,200	0	107,000
10 year mean	0	90,400	287,500	293,900	0	105,900

Table 4. Number of fingerling and yearling salmonids, excluding USFWS stocked lake trout, stocked in Indiana waters<sup>1</sup> of Lake Michigan, 1976 – 2008.

Year	Brown trout	Chinook salmon	Coho salmon	Rainbow trout
1976	199,000	38,000	179,500	217,100
1977	109,000	141,400	179,000	47,700
1978	131,000	213,200	105,000	129,700
1979	68,500	530,700	117,500	181,900
1980	116,100	621,400	169,500	69,800
1981	58,100	263,400	102,000	230,400
1982	0	313,100	160,400	247,700
1983	0	238,400	127,600	378,300
1984	0	405,900	156,300	258,800
1985	7,400	761,800	139,000	509,400
1986	0	697,700	132,900	635,700
1987	0	569,200	161,800	511,200
1988	0	879,800	160,400	461,300
1989	0	717,400	40,700	503,500
1990	0	630,200	114,200	538,800
1991	0	694,400	100,000	493,200
1992	0	504,200	100,800	411,800
1993	0	458,600	12,300	315,600
1994	0	537,000	84,400	568,100
1995	0	555,000	169,100	542,000
1996	0	571,600	357,000	577,600
1997	0	422,600	80,800	610,000
1998	0	593,500	148,300	464,000
1999	0	415,400	146,900	551,500
2000	0	417,800	157,700	374,500
2001	0	450,700	157,000	571,400
2002	35,000	253,000	224,800	605,200
2003	40,400	232,400	233,200	592,000
2004	46,200	237,100	236,000	465,200
2005	36,400	251,300	237,000	933,000
2006	42,900	225,100	79,000	491,400
2007	41,100	217,400	231,300	643,500
2008	22,600	215,800	248,700	572,000
10 year mean	26,500	291,600	195,200	580,000

Footnotes: <sup>1</sup>Reported value represents IN DNR stocking totals which may be different than the total stocked in statistical district IND.

Table 5. Number of fingerling and yearling salmonids, excluding USFWS stocked lake trout, stocked in Michigan waters<sup>1</sup> of Lake Michigan, 1976 – 2008.

Year	Brook trout	Brown trout	Chinook salmon	Coho Salmon	Lake trout	Rainbow trout	Splake
1976	61,300	537,300	1,946,600	2,269,900	0	600,600	0
1977	0	206,500	1,576,200	2,314,100	0	305,200	0
1978	0	150,000	2,523,600	1,802,000	0	1,150,600	0
1979	0	198,800	2,306,700	3,317,000	75,000	980,800	0
1980	0	105,500	2,902,900	2,243,000	62,000	1,310,600	0
1981	8,000	32,000	2,204,700	1,707,200	453,200	557,700	0
1982	0	300,000	2,685,100	1,645,400	90,000	1,066,100	0
1983	0	574,000	2,975,700	1,880,000	0	748,500	0
1984	8,000	529,600	3,874,200	1,969,400	0	1,307,000	0
1985	0	505,500	2,258,500	1,693,000	0	754,100	0
1986	8,600	491,800	2,402,500	1,579,200	0	651,500	0
1987	22,500	415,900	2,429,000	1,331,300	0	688,400	17,700
1988	0	400,100	2,670,900	1,732,600	0	560,700	75,000
1989	0	425,800	3,777,700	1,682,200	0	735,900	88,000
1990	85,000	542,600	3,639,800	1,464,900	0	600,700	50,000
1991	0	287,800	3,312,300	1,655,400	0	761,100	249,200
1992	0	285,900	3,415,400	1,734,600	0	602,600	55,500
1993	0	320,300	3,107,000	1,578,600	0	502,700	101,000
1994	0	810,700	3,465,800	626,900	0	779,100	94,500
1995	0	452,700	3,729,500	1,201,700	105,600	684,000	150,800
1996	0	400,500	3,529,400	1,885,700	0	603,100	131,500
1997	0	434,000	3,045,100	1,722,200	0	592,300	115,000
1998	0	399,600	3,170,200	1,100,000	0	517,800	75,000
1999	0	364,800	2,295,600	1,796,200	0	522,400	50,700
2000	0	509,800	2,314,500	1,785,200	0	571,900	79,100
2001	0	419,100	2,261,000	1,794,600	0	548,200	76,100
2002	0	406,900	2,037,600	1,569,000	149,900	604,200	97,400
2003	0	428,200	2,379,300	2,106,500	0	600,900	81,500
2004	1,000	463,200	2,260,200	666,500	0	574,100	77,700
2005	0	434,300	2,283,700	1,507,100	0	571,600	82,600
2006	0	500,800	1,609,800	1,658,900	0	612,700	86,200
2007	0	334,400	1,590,900	1,125,900	0	534,100	80,400
2008	5,000	460,900	1,530,000	1,215,100	0	545,900	87,000
10 year mean	600	432,200	2,056,300	1,522,500	15,000	568,600	79,900

Footnotes: <sup>1</sup>Reported value represents MI DNR stocking totals which may be different than the total numbers stocked within Michigan statistical districts.

Table 6. Millions of Service stocked yearling lake trout in Lake Michigan, by statistical district, between 1976 and 2008. Fish stocked in refuge areas (Mid-lake Refuge, MLR and Northern Refuge, NR) are included in the statistical district totals and do not represent additional fish stocked.

Year	Statistical District													Refuge area		
	MM123	MM4	MM5	MM6	MM7	MM8	WM1,2	WM3	WM4	WM5	WM6	ILL	IND	TOTAL	MLR	NR
1976	0.466	0.102	0.111	0.150	0.477	0.150	0.172	0.102	0.315	0.104	0.075	0.160	0.164	2.548	0.277	
1977	0.426	0.131	0.091	0.134	0.188	0.135	0.153	0.100	0.308	0.258	0.104	0.166	0.177	2.370		0.050
1978	0.408	0.150	0.104	0.145	0.255	0.192	0.206	0.140	0.280	0.223	0.081	0.116	0.175	2.474		
1979	0.175	0.125	0.101	0.180	0.312	0.190	0.209	0.091	0.271	0.220	0.090	0.162	0.176	2.302		
1980	0.319	0.200	0.117	0.202	0.200	0.148		0.400	0.193	0.340	0.080	0.087	0.174	2.461	0.199	
1981	0.049		0.075	0.210	0.231	0.200		0.213	0.160	0.193	0.050	0.124	0.124	1.628	0.093	
1982	0.075		0.075	0.226	0.423	0.182		0.218	0.150	0.229	0.050	0.152	0.153	1.932	0.281	
1983	0.096	0.154	0.101	0.246	0.796	0.180		0.202	0.111			0.166	0.157	2.210	0.502	
1984		0.062		0.080	0.332	0.200		0.217				0.100	0.108	1.099	0.282	
1985	0.564	0.374	0.143	0.222				0.361		0.775		0.123		2.562	0.775	
1986	0.924	0.180	0.150	0.070				0.367		0.684		0.100		2.474	0.684	0.703
1987	0.746	0.060						0.351		0.714		0.102		1.973	0.714	0.746
1988	0.767	0.152	0.130		0.270			0.192		0.274		0.100		1.885	0.544	0.692
1989	0.772	0.166	0.157		0.300			0.208		0.300		0.103		2.006	0.600	0.688
1990	0.618				0.254					0.445		0.000		1.317	0.700	0.618
1991	1.096	0.229	0.344		0.216			0.196		0.598		0.101		2.779	0.722	0.773
1992	0.987	0.330	0.309		0.257			0.200		0.578		0.100		2.761	0.765	0.766
1993	0.994	0.330	0.308		0.166	0.096		0.196	0.087	0.329		0.096	0.095	2.697	0.495	0.793
1994	0.944	0.333	0.308	0.199	0.107	0.102		0.197		0.210		0.097		2.496	0.317	0.769
1995	0.729	0.188	0.055	0.139	0.245	0.230		0.123	0.086	0.247		0.060	0.058	2.159	0.372	0.581
1996	0.578	0.198	0.185	0.119	0.161	0.169		0.122	0.064	0.255		0.061	0.060	1.971	0.302	0.455
1997	0.570	0.205	0.207	0.128	0.283	0.063		0.121	0.122	0.267	0.060	0.120	0.089	2.235	0.308	0.449
1998	0.621	0.219	0.205	0.126	0.166	0.194		0.115	0.136	0.330	0.065	0.060	0.066	2.302	0.299	0.451
1999	0.610	0.215	0.213	0.121	0.167	0.197		0.118	0.118	0.327	0.054	0.064	0.068	2.274	0.302	0.449
2000	0.610	0.285	0.200	0.120	0.161	0.181		0.116	0.116	0.296	0.114		0.061	2.260	0.290	0.347
2001	0.589	0.245	0.227	0.141	0.064	0.207		0.154	0.130	0.433	0.062	0.059	0.072	2.382	0.305	0.444
2002	0.576	0.258	0.168	0.060	0.063	0.120		0.120		0.435	0.065	0.061	0.060	1.987	0.202	0.452
2003	0.567	0.273	0.228	0.131	0.060	0.239		0.119	0.120	0.430	0.056	0.061	0.070	2.354	0.204	0.298
2004	0.677	0.241	0.197	0.120	0.060	0.256		0.052	0.057	0.571	0.063	0.060		2.354	0.307	0.409
2005	0.976	0.207	0.200	0.230	0.060	0.234		0.081	0.136	0.437	0.060	0.063	0.066	2.750	0.303	0.360
2006	1.177	0.183	0.192	0.120	0.057	0.183		0.095	0.162	0.412	0.061	0.068	0.060	2.770	0.302	0.373
2007	1.080	0.478	0.354	0.121	0.060	0.179		0.121	0.111	0.425	0.058	0.056	0.060	3.103	0.363	0.740
2008	1.178	0.344	0.192	0.133	0.038	0.057		0.056	0.057	0.613	0.050	0.127	0.038	2.882	0.613	0.461



Table 7. Total number of USFWS lake trout yearlings (Y) and fall fingerlings (FF) stocked in each priority stocking area within Lake Michigan in 2008. Strains stocked include Apostle Islands (SAW), Lewis Lake (LLW), and Seneca Lake (SLW).

Priority and Group Area	Stocking Site	Grid	Number Stocked	Strain	Life-Stage	Fin-clip	Off/on shore	
First Priority Northern Refuge (West Beaver Group)	Boulder Reef	413	80,077	SAW	Y	RV	Off	
	Gull Island Shoal	414	52,500	SAW	Y	RV	Off	
	High Island	314	39,052	LLW	Y	RV	Off	
	High Island	314	13,699	SAW	Y	RV	Off	
	Trout Island	314	106,825	LLW	Y	RV	Off	
Northern Refuge (East Beaver Group)	Dahlia Shoal	417	157,904	SAW	Y	RV	Off	
	Hog Island Reef	317	110,074	LLW	Y	RV	Off	
	Hog Island Reef	317	19,743	SAW	Y	RV	Off	
	Ile aux Galets	317	40,984	LLW	Y	RV	Off	
	Ile aux Galets	317	118,321	SAW	Y	RV	Off	
Charlevoix Group	Big Reef	516	56,613	LLW	Y	RV	Off	
	Big Reef	516	37,420	SAW	Y	RV	Off	
	Fisherman Island	616	75,183	SAW	Y	RV	Off	
	Irishmen's Ground	517	194,722	SAW	Y	RV	Off	
	Middle Ground	514	75,040	SAW	Y	RV	Off	
<b>Subtotal</b>			<b>1,178,157</b>		<b>Y</b>			
First Priority Deepwater Reefs Midlake Refuge	Julien's Reef	2403	126,631	SAW	Y	RV	Off	
	Milwaukee Reef	1906	210,503	SAW	Y	RV	Off	
	Northeast Reef		1803	50,980	SAW	Y	RV	Off
			1803	147,704	SLW	Y	RV	Off
	Sheboygan Reef	1705	203,337	SLW	Y	RV	Off	
	<b>Subtotal</b>			<b>739,155</b>		<b>Y</b>		

Second Priority	Michigan City	2707	37,981	LLW	Y	RV	On
IND	Harbor						
MM4	Elk Rapids	816	100,475	LLW	Y	RV	Off
	GTB Shoal	716	60,007	LLW	Y	RV	Off
	Old Mission	716	79,901	LLW	Y	RV	Off
	Torch Lake	716	78,800	LLW	Y	RV	Off
	Torch Lake	716	24,580	SAW	Y	RV	Off
MM5	Good Harbor	814	95,698	LLW	Y	RV	Off
	Point Betsie	911	96,060	LLW	Y	RV	Off
MM6	Ludington	1410	76,230	LLW	Y	RV	On
	Manistee	1210	57,164	LLW	Y	RV	On
MM7	Grandhaven	1911	50,822	SLW	FF	RP	On
	Grandhaven	1911	38,213	LLW	Y	RV	On
	Michigan City	2707	50,266	SLW	FF	RP	On
MM8	New Buffalo	2708	101,677	SLW	FF	RP	On
	South Haven	2311	89,797	SLW	FF	RP	On
	South Haven	2311	37,664	LLW	Y	RV	On
	St. Joseph	2509	19,010	LLW	Y	RV	On
WM3	Sturgeon Bay	905	56,052	SAW	Y	RV	On
WM4	Kewaunee	1104	57,221	SAW	Y	RV	On
	Kewaunee	1104	99,774	SAW	FF	RP	On
	Manitowoc	1303	14,517	SAW	FF	RP	On
	Manitowoc	1303	79,926	SLW	FF	RP	On
WM6	Wind Point Shoal	2102	49,500	SAW	Y	RV	On
	Wind Point Shoal	2102	45,999	SLW	FF	RP	On
	<b>Subtotal</b>		<b>964,556</b>		<b>Y</b>		
			<b>532,778</b>		<b>FF</b>		

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