

Open Water Creel Survey Report for South Manistique Lake, Mackinac County, 2015

Waterbody	South Manistique
Year	2015
County	Mackinac County
Sites	South Manistique
Survey period	May 14 to September 30
Survey design	Roving (instantaneous)-roving
Count methods/modes	Roving (instantaneous)/boat and shore
Clerk time	full time
Survey purpose	Characterize general effort and catch aspects of the fishery

Notes

This survey followed a roving (instantaneous)-roving design. All funding was provided by the Federal Aid to Sport Fish Restoration Project F-81, Study 230499. One clerk worked full time to collect angler survey data. Two weekend days and 3 week days were randomly selected for sampling during each week of the survey season. No holidays were sampled. The clerk followed a randomized count and interview schedule. One of two shifts was selected each sample day. The entire water body was sampled each day. Starting location within the waterbody and direction of travel were randomized for both counting and interviewing. Roving (instantaneous) counts of boat, shore, and pier/dock anglers were made once per day. Survey period for both counts and interviews was May 14 to September 30. Months were estimated separately. Although pier/dock and shore anglers were counted there were no interviews taken.

Table 1.—Work shifts used to estimate catch and effort at South Manistique, May 14 to September 30, 2015.

Year	Month	Daylight hours
2015	5	16
2015	6	16
2015	7	16
2015	8	15
2015	9	12

Table 2.—Estimated harvest, catch per hour, and fishing pressure for the South Manistique Lake boat fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
HARVEST							
Walleye	0.0362	287	1,136	348	347	325	2,443
	0.0145	260	656	209	240	406	874
Northern Pike	0.0428	113	497	1,513	325	444	2,892
	0.0182	102	306	952	248	407	1,112
Largemouth Bass	0.0220	9	603	325	105	443	1,486
	0.0152	15	444	228	128	846	991
Smallmouth Bass	0.0032	7	186	23	0	0	217
	0.0045	15	302	33	0	0	304
Yellow Perch	0.0212	292	223	369	526	24	1,434
	0.0111	448	197	272	421	42	702
Bluegill	0.3669	484	9,117	4,843	6,045	4,280	24,769
	0.1154	552	4,237	2,265	2,682	3,191	6,385
Pumpkinseed	0.1308	39	2,268	3,307	2,351	869	8,833
	0.0501	56	1,862	1,799	1,123	962	2,982
Rock Bass	0.0144	114	608	203	25	21	971
	0.0070	106	379	190	40	42	441
Black Crappie	0.0128	32	455	101	211	66	865
	0.0066	46	297	106	246	121	420
Brown Bullhead	0.0003	7	0	10	4	0	21
	0.0004	13	0	20	8	0	25
Redear Sunfish	0.0001	0	0	0	0	4	4
	0.0001	0	0	0	0	8	8
TOTAL HARVEST	0.6508	1,385	15,094	11,041	9,938	6,477	43,935
	0.1598	775	4,743	3,081	2,972	3,489	7,321
RELEASED							
Walleye	0.0609	156	1,753	885	798	519	4,111
	0.0229	142	1,051	532	461	470	1,357
Northern pike	0.3458	2,319	8,634	6,368	3,351	2,670	23,342
	0.1019	1,793	3,698	2,688	1,607	1,699	5,440
Largemouth bass	0.1391	1,153	3,403	2,993	1,291	549	9,390
	0.0483	1,410	1,575	1,587	765	414	2,783
Smallmouth bass	0.0186	0	739	91	162	267	1,259
	0.0123	0	687	94	175	348	795
Yellow Perch	0.1621	789	1,145	2,716	4,438	1,851	10,940
	0.0607	625	727	1,193	2,958	1,339	3,589
Bluegill	0.7700	827	12,105	17,729	16,589	4,734	51,984
	0.2258	734	5,137	7,909	6,751	3,043	12,013
Pumpkinseed	0.0980	68	273	1,300	4,877	97	6,615
	0.0516	104	275	733	3,174	146	3,274
Rock bass	0.0341	108	1,645	444	61	43	2,301
	0.0156	94	909	297	81	49	966
Black crappie	0.0074	60	63	91	277	8	500
	0.0047	113	100	134	224	17	302
Brown bullhead	0.0008	19	34	0	0	0	53
	0.0011	32	68	0	0	0	75
Redear Sunfish	0.0025	0	0	0	168	0	168
	0.0050	0	0	0	335	0	335
TOTAL RELEASED	1.6392	5,499	29,794	32,617	32,013	10,740	110,662
	0.3651	2,487	6,750	8,640	8,245	3,805	14,453
TOTAL CATCH	2.2900	6,884	44,888	43,658	41,951	17,218	154,597
	0.4778	2,605	8,250	9,173	8,765	5,163	16,201
ANGLER HOURS		3,897	19,340	19,672	17,073	7,528	67,510
		2,498	6,905	6,541	6,017	3,932	12,181
ANGLER TRIPS		1,078	5,736	4,295	5,456	1,815	18,380
		918	2,323	1,765	2,991	1,003	4,394

Table 3.—Estimated angler hours for the South Manistique Lake pier/dock fishery. There were no interviews taken of pier/dock anglers to get an estimate of harvested, released, catch per hour, or trips of the pier/dock fishery. Two standard errors are given below the estimates.

	May	June	July	August	September	Season
ANGLER HOURS	66	230	307	361	14	978
	132	211	275	421	27	562

Table 4.—Estimated angler hours and angler trips of the South Manistique Lake shore fishery. There were no interviews taken of shore anglers to get an estimate of harvested, released, catch per hour, or trips of the shore fishery. Two standard errors are given below the estimates.

	May	June	July	August	September	Season
ANGLER HOURS	0	0	0	26	0	26
	0	0	0	53	0	53

Table 5.—Estimated harvest, catch per hour, and fishing pressure for the South Manistique Lake fishery. Two standard errors are given below the estimates.

Species	C/H	May	June	July	August	September	Season
HARVEST							
Walleye	0.0357	287	1,136	348	347	325	2,443
	0.0142	260	656	209	240	406	874
Northern Pike	0.0422	113	497	1,513	325	444	2,892
	0.0179	102	306	952	248	407	1,112
Largemouth Bass	0.0217	9	603	325	105	443	1,486
	0.0150	15	444	228	128	846	991
Smallmouth Bass	0.0032	7	186	23	0	0	217
	0.0045	15	302	33	0	0	304
Yellow Perch	0.0209	292	223	369	526	24	1,434
	0.0109	448	197	272	421	42	702
Bluegill	0.3615	484	9,117	4,843	6,045	4,280	24,769
	0.1132	552	4,237	2,265	2,682	3,191	6,385
Pumpkinseed	0.1289	39	2,268	3,307	2,351	869	8,833
	0.0492	56	1,862	1,799	1,123	962	2,982
Rock Bass	0.0142	114	608	203	25	21	971
	0.0069	106	379	190	40	42	441
Black Crappie	0.0126	32	455	101	211	66	865
	0.0065	46	297	106	246	121	420
Brown Bullhead	0.0003	7	0	10	4	0	21
	0.0004	13	0	20	8	0	25
Redear Sunfish	0.0001	0	0	0	0	4	4
	0.0001	0	0	0	0	8	8
TOTAL HARVEST	0.6413	1,385	15,094	11,041	9,938	6,477	43,935
	0.1563	775	4,743	3,081	2,972	3,489	7,321
RELEASED							
Walleye	0.0600	156	1,753	885	798	519	4,111
	0.0225	142	1,051	532	461	470	1,357
Northern pike	0.3407	2,319	8,634	6,368	3,351	2,670	23,342
	0.0999	1,793	3,698	2,688	1,607	1,699	5,440
Largemouth bass	0.1370	1,153	3,403	2,993	1,291	549	9,390
	0.0474	1,410	1,575	1,587	765	414	2,783
Smallmouth bass	0.0184	0	739	91	162	267	1,259
	0.0121	0	687	94	175	348	795
Yellow Perch	0.1597	789	1,145	2,716	4,438	1,851	10,940
	0.0596	625	727	1,193	2,958	1,339	3,589
Bluegill	0.7587	827	12,105	17,729	16,589	4,734	51,984
	0.2213	734	5,137	7,909	6,751	3,043	12,013
Pumpkinseed	0.0965	68	273	1,300	4,877	97	6,615
	0.0508	104	275	733	3,174	146	3,274
Rock bass	0.0336	108	1,645	444	61	43	2,301
	0.0153	94	909	297	81	49	966
Black crappie	0.0073	60	63	91	277	8	500
	0.0046	113	100	134	224	17	302
Brown bullhead	0.0008	19	34	0	0	0	53
	0.0011	32	68	0	0	0	75
Redear Sunfish	0.0024	0	0	0	168	0	168
	0.0049	0	0	0	335	0	335
TOTAL RELEASED	1.6152	5,499	29,794	32,617	32,013	10,740	110,662
	0.3566	2,487	6,750	8,640	8,245	3,805	14,453
TOTAL CATCH	2.2564	6,884	44,888	43,658	41,951	17,218	154,597
	0.4660	2,605	8,250	9,173	8,765	5,163	16,201
ANGLER HOURS		3,963	19,570	19,979	17,461	7,542	68,515
		2,502	6,909	6,547	6,032	3,932	12,194
ANGLER TRIPS		1,095	5,793	4,370	5,551	1,818	18,627
		918	2,324	1,767	2,993	1,003	4,396