

Open Water Creel Survey Report for Portage Lake, Manistee County, 2017

Waterbody	Portage Lake
Year	2017
County	Manistee County
Sites	PortageLake
Survey period	April 1 to October 31
Survey design	Roving (instantaneous)-access
Count methods/modes	Roving (instantaneous)/boat and shore
Clerk time	1/2 time
Survey purpose	Characterize general effort and catch aspects of the fishery

Notes

Survey followed a roving (instantaneous)-access design. Funding was provided by the Federal Aid to Sport Fish Restoration Project F-81, Study 230499. One clerk worked 1/2 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. Roving (instantaneous) counts of boat and shore anglers were made twice per day. Survey period for both counts and interviews was April 1 to October 31. Months were estimated separately. "**NAN**" in a table means there was not enough data to make an estimate.

Table 1.–Daylight hours used to estimate catch and effort for the Portage Lake open water creel survey from April 1 to October 31, 2017.

Year	Month	Daylight Hours
2017	4	14
2017	5	15
2017	6	16
2017	7	17
2017	8	17
2017	9	16
2017	10	13

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

Species	C/H	April	May	June	July	August	September	October	Season
HARVEST									
Walleye	0.0019	—	—	—	—	49	—	—	49
	0.0029	—	—	—	—	71	—	—	71
Northern Pike	0.0050	—	64	—	—	16	44	—	124
	0.0048	—	93	—	—	32	64	—	118
Largemouth Bass	0.0171	—	53	92	181	49	50	—	425
	0.0152	—	108	195	276	54	101	—	373
Smallmouth Bass	0.0041	—	—	31	40	32	—	—	103
	0.0045	—	—	63	80	46	—	—	112
Yellow Perch	1.0068	2,642	3,614	2,647	2,403	6,682	3,984	3,094	25,065
	0.3479	1,774	2,868	2,519	2,092	4,652	3,121	2,274	7,658
Bluegill	0.1657	162	273	1,298	1,281	260	657	194	4,124
	0.0884	335	417	1,335	1,173	358	862	296	2,098
Pumpkinseed	0.0132	—	114	—	100	49	65	—	328
	0.0105	—	166	—	126	71	129	—	255
Rock Bass	0.2288	—	121	1,322	1,544	1,868	724	116	5,695
	0.1032	—	132	1,169	1,271	1,485	699	236	2,398
Green Sunfish	0.0037	—	53	—	40	—	—	—	93
	0.0048	—	85	—	81	—	—	—	117
TOTAL HARVEST	1.4462	2,805	4,293	5,390	5,588	9,004	5,524	3,403	36,005
	0.4073	1,806	2,911	3,088	2,734	4,898	3,317	2,305	8,310
RELEASED									
Northern Pike	0.0061	—	75	—	40	16	22	—	153
	0.0055	—	93	—	79	32	44	—	134
Largemouth Bass	0.5336	41	2,927	3,115	3,153	1,455	1,998	595	13,286
	0.1928	60	2,751	1,866	2,093	988	1,107	897	4,294
Smallmouth Bass	0.0845	—	393	453	402	437	421	—	2,105
	0.0419	—	516	420	367	489	393	—	985
Yellow Perch	2.1381	8,526	4,467	6,014	4,705	10,995	6,492	12,031	53,230
	0.7649	6,641	3,213	7,088	4,725	7,879	4,412	8,962	16,995
Bluegill	0.0403	23	129	185	340	87	240	—	1,003
	0.0326	47	199	388	487	128	431	—	795
Pumpkinseed	0.0024	—	43	—	—	16	—	—	59
	0.0037	—	87	—	—	33	—	—	93
Rock Bass	0.2007	—	847	1,275	822	1,209	602	242	4,997
	0.1057	—	1,315	1,392	976	971	679	497	2,504
Channel Catfish	0.0016	—	—	—	40	—	—	—	40
	0.0032	—	—	—	80	—	—	—	80
Chinook Salmon	0.0007	18	—	—	—	—	—	—	18
	0.0015	37	—	—	—	—	—	—	37
OTH3R	0.0036	—	88	—	—	—	—	—	88
	0.0073	—	180	—	—	—	—	—	180
TOTAL RELEASED	3.0117	8,609	8,968	11,041	9,502	14,216	9,775	12,868	74,979
	0.8630	6,641	4,469	7,482	5,295	8,016	4,636	9,020	17,754
TOTAL CATCH	4.4579	11,414	13,261	16,431	15,089	23,219	15,298	16,271	110,984
	1.0666	6,882	5,334	8,095	5,959	9,394	5,700	9,310	19,603
ANGLER HOURS		1,436	2,571	4,786	4,677	5,288	4,683	1,456	24,896
		706	1,130	2,135	1,693	1,865	1,668	828	4,018
ANGLER TRIPS		422	680	947	1,084	1,220	1,097	353	5,803
		224	293	467	420	488	428	206	997

Table 3.—Estimated harvest, catch per hour, and fishing pressure for Portage Lake pier/dock fishery. Two standard errors are given below the estimates.

Species	C/H	April	May	June	July	August	September	October	Season
HARVEST									
Yellow Perch	1.4360	–	–	–	2,168	164	100	–	2,431
	5.1668	–	–	–	NAN	337	161	–	8,678
Bluegill	0.2614	–	–	–	383	–	60	–	442
	0.9132	–	–	–	NAN	–	96	–	1,533
Pumpkinseed	0.0118	–	–	–	–	–	20	–	20
	0.0197	–	–	–	–	–	32	–	32
Rock Bass	0.0483	–	–	–	–	82	–	–	82
	0.1019	–	–	–	–	168	–	–	168
Chinook Salmon	0.2008	–	–	–	–	–	340	–	340
	0.3350	–	–	–	–	–	546	–	546
TOTAL HARVEST	1.9584	–	–	–	2,550	246	520	–	3,316
	6.1032	–	–	–	NAN	377	578	–	10,223
RELEASED									
Northern Pike	0.0284	–	–	23	25	–	–	–	48
	0.0399	–	–	32	55	–	–	–	64
Largemouth Bass	0.1613	–	–	46	227	–	–	–	273
	0.3051	–	–	65	497	–	–	–	502
Yellow Perch	1.3506	–	–	274	253	927	700	132	2,286
	1.0314	–	–	735	485	847	647	264	1,407
Bluegill	0.1615	–	–	–	–	55	200	19	273
	0.3046	–	–	–	–	127	483	38	501
Rock Bass	0.2169	–	23	–	25	273	46	–	367
	0.3646	–	47	–	48	562	NAN	–	594
TOTAL RELEASED	1.9187	–	23	343	531	1,255	946	151	3,248
	2.5489	–	47	739	699	1,024	NAN	267	4,058
TOTAL CATCH	3.8771	–	23	343	3,081	1,500	1,466	151	6,564
	6.7292	–	47	739	NAN	1,091	NAN	267	10,999
ANGLER HOURS		–	422	190	425	412	183	61	1,693
		–	570	158	338	292	146	123	765
ANGLER TRIPS		–	84	62	136	111	47	19	459
		–	125	68	111	88	43	39	209

Table 4.—Estimated harvest, catch per hour, and fishing pressure for Portage Lake shore fishery. Two standard errors are given below the estimates.

Species	C/H	April	May	June	July	August	September	October	Season
HARVEST									
TOTAL HARVEST	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–
RELEASED									
TOTAL RELEASED	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–
TOTAL CATCH	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–
ANGLER HOURS		–	115	–	–	119	–	–	234
		–	138	–	–	183	–	–	229
ANGLER TRIPS		–	29	–	–	30	–	–	60
		–	36	–	–	47	–	–	59

Table 5.—Total estimated harvest, catch per hour, and fishing pressure for Portage Lake all fishing modes combined. Two standard errors are given below the estimates.

Species	C/H	April	May	June	July	August	September	October	Season
HARVEST									
Walleye	0.0018	—	—	—	—	49	—	—	49
	0.0027	—	—	—	—	71	—	—	71
Northern Pike	0.0046	—	64	—	—	16	44	—	124
	0.0044	—	93	—	—	32	64	—	118
Largemouth Bass	0.0158	—	53	92	181	49	50	—	425
	0.0141	—	108	195	276	54	101	—	373
Smallmouth Bass	0.0038	—	—	31	40	32	—	—	103
	0.0042	—	—	63	80	46	—	—	112
Yellow Perch	1.0251	2,642	3,614	2,647	4,570	6,845	4,084	3,094	27,496
	0.7515	1,774	2,868	2,519	NAN	4,664	3,125	2,274	19,714
Bluegill	0.1703	162	273	1,298	1,663	260	717	194	4,567
	0.2577	335	417	1,335	NAN	358	867	296	6,877
Pumpkinseed	0.0130	—	114	—	100	49	85	—	348
	0.0098	—	166	—	126	71	133	—	257
Rock Bass	0.2154	—	121	1,322	1,544	1,950	724	116	5,777
	0.0955	—	132	1,169	1,271	1,494	699	236	2,404
Chinook Salmon	0.0127	—	—	—	—	—	340	—	340
	0.0204	—	—	—	—	—	546	—	546
Green Sunfish	0.0035	—	53	—	40	—	—	—	93
	0.0044	—	85	—	81	—	—	—	117
TOTAL HARVEST	1.4659	2,805	4,293	5,390	8,138	9,249	6,044	3,403	39,321
	1.2685	1,806	2,911	3,088	NAN	4,913	3,367	2,305	33,490
RELEASED									
Northern Pike	0.0075	—	75	23	66	16	22	—	201
	0.0056	—	93	32	96	32	44	—	148
Largemouth Bass	0.5055	41	2,927	3,161	3,381	1,455	1,998	595	13,559
	0.1787	60	2,751	1,867	2,151	988	1,107	897	4,323
Smallmouth Bass	0.0785	—	393	453	402	437	421	—	2,105
	0.0386	—	516	420	367	489	393	—	985
Yellow Perch	2.0698	8,526	4,467	6,288	4,957	11,923	7,192	12,163	55,517
	0.7100	6,641	3,213	7,126	4,750	7,924	4,459	8,966	17,054
Bluegill	0.0476	23	129	185	340	141	440	19	1,276
	0.0358	47	199	388	487	180	647	38	940
Pumpkinseed	0.0022	—	43	—	—	16	—	—	59
	0.0035	—	87	—	—	33	—	—	93
Rock Bass	0.2000	—	870	1,275	847	1,482	648	242	5,364
	0.1370	—	1,316	1,392	977	1,122	NAN	497	3,583
Channel Catfish	0.0015	—	—	—	40	—	—	—	40
	0.0030	—	—	—	80	—	—	—	80
Chinook Salmon	0.0007	18	—	—	—	—	—	—	18
	0.0014	37	—	—	—	—	—	—	37
OTH3R	0.0033	—	88	—	—	—	—	—	88
	0.0067	—	180	—	—	—	—	—	180
TOTAL RELEASED	2.9164	8,609	8,992	11,384	10,032	15,470	10,721	13,019	78,227
	1.7792	6,641	4,469	7,519	5,341	8,081	NAN	9,024	46,204
TOTAL CATCH	4.3824	11,414	13,284	16,774	18,170	24,720	16,764	16,422	117,548
	2.2303	6,882	5,334	8,128	NAN	9,457	NAN	9,314	57,065
ANGLER HOURS		1,436	3,107	4,976	5,102	5,819	4,866	1,517	26,823
		706	1,273	2,141	1,727	1,896	1,674	837	4,097
ANGLER TRIPS		422	794	1,009	1,219	1,361	1,144	372	6,322
		224	320	471	434	498	431	210	1,020