

Open Water Creel Survey Report for Portage Lake, Manistee County, 2019

Waterbody	Portage Lake
Year	2019
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	full time
Survey purpose	Characterize general effort and catch aspects of the fishery

Notes

This 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 full time to collect angling survey data. Three weekdays and two weekend days were randomly selected for sampling during each week of the survey season. No holidays were sampled. Clerks 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 and direction of travel were randomized for both counting and interviewing. Roving (instantaneous) counts of boat and shore anglers were made once per day. Survey period for both counts and interviews was April 1 to October 31. Months were estimated separately. Estimates are available for boat and shore. "NAN" in a table means there was not enough information to make a calculation.

Table 1.—Daylight hours used to estimate catch and effort each month of Portage Lake creel survey from April 1 to October 31, 2019.

Year	Month	Hours
2019	April	14
2019	May	15
2019	June	16
2019	July	17
2019	August	17
2019	September	15
2019	October	14

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									
Northern Pike	0.0143	0	0	210	138	0	0	0	347
	0.0201	0	0	380	289	0	0	0	477
Largemouth Bass	0.0158	0	35	0	235	112	0	0	383
	0.0180	0	70	0	346	230	0	0	421
Smallmouth Bass	0.0015	0	35	0	0	0	0	0	35
	0.0029	0	70	0	0	0	0	0	70
Yellow Perch	0.7872	1,941	6,575	657	3,441	3,759	2,042	683	19,098
	0.5270	NAN	4,524	1,067	5,292	4,004	2,413	766	11,505
Bluegill	0.3655	19	25	1,081	1,863	5,449	431	0	8,868
	0.3428	38	51	1,255	2,658	7,314	559	0	7,902
Pumpkinseed	0.0269	0	0	319	332	0	0	0	652
	0.0293	0	0	464	506	0	0	0	686
Rock Bass	0.1328	0	217	1,820	462	494	144	85	3,221
	0.1105	0	324	2,247	891	523	258	127	2,511
Green Sunfish	0.0451	0	0	1,095	0	0	0	0	1,095
	0.0927	0	0	2,225	0	0	0	0	2,225
TOTAL HARVEST	1.3890	1,960	6,888	5,182	6,471	9,813	2,617	768	33,700
	0.7198	NAN	4,537	3,616	6,027	8,358	2,490	776	14,426
RELEASED									
Northern Pike	0.0500	0	106	867	138	49	24	29	1,213
	0.0622	0	128	1,432	259	98	50	41	1,466
Largemouth Bass	1.0017	0	9,535	7,891	4,020	1,882	766	207	24,302
	0.5198	0	5,692	7,756	3,253	2,126	986	233	10,425
Smallmouth Bass	0.0593	0	735	219	243	49	48	143	1,438
	0.0428	0	727	410	385	98	100	196	951
Yellow Perch	1.1923	1,280	6,020	2,545	3,142	8,466	5,990	1,484	28,927
	0.6758	NAN	4,294	3,363	4,349	9,018	6,240	1,518	14,051
Bluegill	0.2047	0	142	985	883	2,765	191	0	4,967
	0.1620	0	282	1,543	1,528	2,909	269	0	3,651
Rock Bass	0.1480	0	503	1,300	462	1,174	151	0	3,590
	0.1227	0	619	1,411	813	2,165	195	0	2,786
Cisco	0.0010	0	25	0	0	0	0	0	25
	0.0021	0	52	0	0	0	0	0	52
Goby	0.0015	0	35	0	0	0	0	0	35
	0.0029	0	71	0	0	0	0	0	71
TOTAL RELEASED	2.6585	1,280	17,102	13,807	8,888	14,387	7,171	1,863	64,499
	1.0789	NAN	7,201	8,835	5,719	9,951	6,327	1,549	18,174
TOTAL CATCH	4.0476	3,240	23,991	18,989	15,359	24,200	9,788	2,631	98,198
	1.5206	NAN	8,511	9,546	8,309	12,995	6,799	1,733	23,203
ANGLER HOURS		632	5,262	7,253	4,520	3,878	1,536	1,179	24,261
		NAN	2,318	4,895	3,010	1,949	992	801	7,086
ANGLER TRIPS		186	1,395	1,934	1,175	1,007	461	261	6,419
		NAN	637	1,346	836	522	310	182	1,967

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
RELEASED									
Bluegill	0.3203	0	0	0	170	109	0	0	279
	0.9394	0	0	0	NAN	NAN	0	0	807
Rock Bass	0.0586	0	0	0	51	0	0	0	51
	0.2360	0	0	0	NAN	0	0	0	204
TOTAL RELEASED	0.3789	0	0	0	221	109	0	0	330
	1.1456	0	0	0	NAN	NAN	0	0	985
TOTAL CATCH	0.3789	0	0	0	221	109	0	0	330
	1.1456	0	0	0	NAN	NAN	0	0	985
ANGLER HOURS		0	84	442	38	176	15	115	870
		0	111	255	77	160	30	230	403
ANGLER TRIPS		0	22	117	10	47	4	31	231
		0	29	68	20	42	8	61	107

Table 4.—Estimated fishing pressure for Portage Lake shore fishery. Two standard errors are given below the estimates.

	April	May	June	July	August	September	October	Season
ANGLER HOURS	0	51	160	0	0	0	0	211
	0	101	211	0	0	0	0	234
ANGLER TRIPS	0	13	42	0	0	0	0	56
	0	27	56	0	0	0	0	62

Table 5.—Estimated harvest, catch per hour, and fishing pressure for Portage Lake combined boat, shore, and pier/dock fishery. Two standard errors are given below the estimates.

Species	C/H	April	May	June	July	August	September	October	Season
HARVEST									
Northern Pike	0.0137	0	0	210	138	0	0	0	347
	0.0192	0	0	380	289	0	0	0	477
Largemouth Bass	0.0151	0	35	0	235	112	0	0	383
	0.0172	0	70	0	346	230	0	0	421
Smallmouth Bass	0.0014	0	35	0	0	0	0	0	35
	0.0028	0	70	0	0	0	0	0	70
Yellow Perch	0.7536	1,941	6,575	657	3,441	3,759	2,042	683	19,098
	0.5007	NAN	4,524	1,067	5,292	4,004	2,413	766	11,505
Bluegill	0.3499	19	25	1,081	1,863	5,449	431	0	8,868
	0.3269	38	51	1,255	2,658	7,314	559	0	7,902
Pumpkinseed	0.0257	0	0	319	332	0	0	0	652
	0.0280	0	0	464	506	0	0	0	686
Rock Bass	0.1271	0	217	1,820	462	494	144	85	3,221
	0.1053	0	324	2,247	891	523	258	127	2,511
Green Sunfish	0.0432	0	0	1,095	0	0	0	0	1,095
	0.0886	0	0	2,225	0	0	0	0	2,225
TOTAL HARVEST	1.3298	1,960	6,888	5,182	6,471	9,813	2,617	768	33,700
	0.6804	NAN	4,537	3,616	6,027	8,358	2,490	776	14,426
RELEASED									
Northern Pike	0.0479	0	106	867	138	49	24	29	1,213
	0.0594	0	128	1,432	259	98	50	41	1,466
Largemouth Bass	0.9590	0	9,535	7,891	4,020	1,882	766	207	24,302
	0.4914	0	5,692	7,756	3,253	2,126	986	233	10,425
Smallmouth Bass	0.0567	0	735	219	243	49	48	143	1,438
	0.0407	0	727	410	385	98	100	196	951
Yellow Perch	1.1415	1,280	6,020	2,545	3,142	8,466	5,990	1,484	28,927
	0.6401	NAN	4,294	3,363	4,349	9,018	6,240	1,518	14,051
Bluegill	0.2070	0	142	985	1,053	2,874	191	0	5,246
	0.4907	0	282	1,543	NAN	NAN	269	0	12,347
Rock Bass	0.1437	0	503	1,300	513	1,174	151	0	3,641
	0.1387	0	619	1,411	NAN	2,165	195	0	3,362
Cisco	0.0010	0	25	0	0	0	0	0	25
	0.0021	0	52	0	0	0	0	0	52
Goby	0.0014	0	35	0	0	0	0	0	35
	0.0028	0	71	0	0	0	0	0	71
TOTAL RELEASED	2.5581	1,280	17,102	13,807	9,109	14,496	7,171	1,863	64,829
	2.8505	NAN	7,201	8,835	NAN	NAN	6,327	1,549	69,916
TOTAL CATCH	3.8879	3,240	23,991	18,989	15,580	24,309	9,788	2,631	98,528
	3.0203	NAN	8,511	9,546	NAN	NAN	6,799	1,733	71,389
ANGLER HOURS		632	5,397	7,855	4,558	4,054	1,551	1,294	25,342
		NAN	2,323	4,906	3,011	1,955	993	833	7,101
ANGLER TRIPS		186	1,431	2,094	1,185	1,054	465	292	6,706
		NAN	638	1,349	836	523	310	192	1,971