

Open Water Creel Survey Report for Devils Lake and Hudson Lake, Lenawee County, 2015

Waterbodies	Devils Lake and Hudson Lake
Year	2015
County	Lenawee
Sites	Devils Lake, Hudson Lake
Survey period	April 25 to September 30
Survey design	Roving (instantaneous)-roving
Count methods/modes	Roving (instantaneous)/boat
Clerk time	Full time
Survey purpose	Characterize general effort and catch aspects of the fishery

Notes

Survey followed a roving (instantaneous)-roving 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. Two weekend days and 3 week 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. Devils and Hudson lakes were divided into 2 sites: Devils Lake and Hudson Lake. Each section was sampled once per day. Direction of travel was randomized for both counting and interviewing. Roving (instantaneous) counts of boat anglers were made twice per day. Survey period for both counts and interviews was April 25 to September 30. Months were estimated separately, except the April and May were combined. Estimates are available for boat mode only.

Table 1.–Daylight hours used to estimate catch and effort at Devils Lake and Hudson Lake, April 25 to September 30, 2015.

Year	Month	Daylight hours
2015	4	14
2015	5	16
2015	6	16
2015	7	17
2015	8	16
2015	9	15
2015	10	14

Table 2.—Estimated harvest, catch per hour, and fishing pressure for The Devil’s Lake boat fishery. Two standard errors are listed below each estimate.

Species	C/H	April-May	June	July	August	September	Season
HARVEST							
Walleye	0.0013	0	25	0	12	0	37
	0.0015	0	34	0	24	0	42
Northern pike	0.0102	13	56	126	61	32	288
	0.0079	26	62	166	103	46	211
Largemouth bass	0.0180	78	153	89	158	29	507
	0.0113	89	138	111	216	42	296
Yellow Perch	0.0276	73	224	217	39	224	777
	0.0171	99	152	230	52	330	445
Bluegill	1.4847	6,345	8,072	7,477	9,699	10,174	41,766
	0.5287	5,003	3,077	4,734	6,278	5,222	11,117
Rock bass	0.0156	321	65	38	0	16	440
	0.0128	328	81	56	0	32	344
Black crappie	0.1454	2,230	480	1,276	0	103	4,089
	0.1049	2,446	418	1,260	0	156	2,788
TOTAL HARVEST	1.7029	9,060	9,073	9,224	9,970	10,578	47,905
	0.5734	5,581	3,114	4,909	6,282	5,235	11,481
RELEASED							
Walleye	0.0000	0	0	0	0	0	0
	0.0000	0	0	0	0	0	0
Northern pike	0.0934	469	380	954	648	175	2,627
	0.0404	419	243	643	451	225	950
Largemouth bass	0.6875	4,477	2,787	6,059	4,616	1,401	19,339
	0.2693	3,101	1,122	3,435	3,373	1,549	6,037
Smallmouth bass	0.0545	332	123	430	428	218	1,532
	0.0271	287	89	323	399	308	670
Yellow Perch	0.0323	93	173	441	64	137	907
	0.0177	117	131	372	78	166	450
Bluegill	1.2642	7,977	7,603	5,475	6,846	7,661	35,563
	0.4644	6,681	2,740	3,335	4,279	4,286	9,997
Rock bass	0.1258	1,450	751	570	629	139	3,539
	0.0601	1,163	427	418	637	211	1,469
Black crappie	0.1228	1,715	553	670	359	158	3,454
	0.0741	1,648	549	654	412	249	1,917
Muskellunge	0.0000	0	0	0	0	0	0
	0.0000	0	0	0	0	0	0
White bass	0.0005	0	0	0	13	0	13
	0.0009	0	0	0	26	0	26
TOTAL RELEASED	2.3808	16,513	12,369	14,599	13,603	9,890	66,975
	0.7063	7,654	3,055	4,917	5,534	4,588	11,991
TOTAL CATCH	4.0838	25,573	21,443	23,823	23,573	20,468	114,880
	1.1319	9,473	4,362	6,948	8,373	6,961	16,601
ANGLER HOURS		6,326	5,858	6,406	5,562	3,979	28,131
		3,960	1,519	3,120	3,203	2,509	6,654
ANGLER TRIPS		1,727	1,434	1,781	1,222	1,038	7,203
		1,188	394	904	671	660	1,808

Table 3.—Estimated harvest, catch per hour, and fishing pressure for the Hudson Lake boat fishery. Two standard errors are listed below each estimate.

Species	C/H	April-May	June	July	August	September	Season
HARVEST							
Walleye	0.0096	18	26	115	0	20	179
	0.0085	35	50	137	0	41	156
Northern pike	0.0000	0	0	0	0	0	0
	0.0000	0	0	0	0	0	0
Largemouth bass	0.0246	160	133	127	16	20	456
	0.0167	207	145	155	32	41	301
Yellow Perch	0.0132	53	47	143	0	0	244
	0.0124	107	74	184	0	0	226
Bluegill	0.2060	906	383	1,158	604	767	3,819
	0.1488	1,774	767	1,333	582	1,172	2,688
Rock bass	0.0000	0	0	0	0	0	0
	0.0000	0	0	0	0	0	0
Black crappie	0.1172	444	166	83	1,402	77	2,172
	0.1419	896	307	164	2,420	114	2,607
Channel catfish	0.0048	18	17	17	16	20	88
	0.0043	36	35	34	32	39	79
Carp	0.0240	444	0	0	0	0	444
	0.0477	881	0	0	0	0	881
TOTAL HARVEST	0.3993	2,044	773	1,642	2,038	905	7,403
	0.2185	2,187	844	1,372	2,490	1,180	3,869
RELEASED							
Walleye	0.0028	0	35	17	0	0	51
	0.0043	0	71	34	0	0	78
Northern pike	0.0000	0	0	0	0	0	0
	0.0000	0	0	0	0	0	0
Largemouth bass	0.7115	2,508	2,909	3,240	1,917	2,617	13,191
	0.2206	1,973	1,619	1,369	810	1,767	3,488
Smallmouth bass	0.0000	0	0	0	0	0	0
	0.0000	0	0	0	0	0	0
Yellow Perch	0.0517	18	115	427	307	92	959
	0.0280	36	111	310	344	131	495
Bluegill	0.3054	2,074	636	1,127	1,021	803	5,662
	0.1640	2,388	541	965	566	1,077	2,900
Rock bass	0.0009	17	0	0	0	0	17
	0.0018	33	0	0	0	0	33
Black crappie	0.2174	1,111	767	1,573	371	210	4,031
	0.1113	1,143	603	1,437	239	205	1,959
Channel catfish	0.0134	36	103	17	53	41	249
	0.0087	53	104	33	52	82	155
Carp	0.0009	0	0	17	0	0	17
	0.0018	0	0	33	0	0	33
Muskellunge	0.0075	17	13	52	10	46	139
	0.0056	34	26	62	20	65	102
TOTAL RELEASED	1.3116	5,781	4,578	6,469	3,679	3,808	24,315
	0.3419	3,303	1,819	2,231	1,074	2,086	4,970
TOTAL CATCH	1.7109	7,825	5,352	8,111	5,717	4,714	31,718
	0.4382	3,961	2,005	2,619	2,712	2,396	6,298
ANGLER HOURS		2,764	2,882	5,360	4,365	3,167	18,539
		1,614	1,197	1,585	1,028	1,178	2,999
ANGLER TRIPS		618	705	1,332	1,027	741	4,422
		364	308	403	258	308	742

Table 4.—Estimated harvest, catch per hour, and fishing pressure for both Devil’s Lake and Hudson Lake boat fisheries combined. Two standard errors are listed below each estimate.

Species	C/H	April-May	June	July	August	September	Season
HARVEST							
Walleye	0.0046	18	50	115	12	20	215
	0.0035	35	61	137	24	41	161
Northern pike	0.0062	13	56	126	61	32	288
	0.0046	26	62	166	103	46	211
Largemouth bass	0.0206	238	286	216	174	50	963
	0.0096	225	200	191	218	59	422
Yellow Perch	0.0219	126	271	361	39	224	1,021
	0.0112	146	169	295	52	330	499
Bluegill	0.9768	7,251	8,455	8,635	10,303	10,941	45,585
	0.2888	5,308	3,171	4,918	6,305	5,352	11,437
Rock bass	0.0094	321	65	38	0	16	440
	0.0075	328	81	56	0	32	344
Black crappie	0.1342	2,674	646	1,360	1,402	180	6,261
	0.0844	2,605	519	1,271	2,420	193	3,817
Channel catfish	0.0019	18	17	17	16	20	88
	0.0017	36	35	34	32	39	79
Carp	0.0095	444	0	0	0	0	444
	0.0189	881	0	0	0	0	881
TOTAL HARVEST	1.1851	11,104	9,847	10,867	12,008	11,483	55,308
	0.3190	5,994	3,227	5,097	6,758	5,366	12,115
RELEASED							
Walleye	0.0011	0	35	17	0	0	51
	0.0017	0	71	34	0	0	78
Northern pike	0.0563	469	380	954	648	175	2,627
	0.0222	419	243	643	451	225	950
Largemouth bass	0.6970	6,985	5,696	9,298	6,533	4,018	32,530
	0.1849	3,676	1,970	3,698	3,469	2,350	6,973
Smallmouth bass	0.0328	332	123	430	428	218	1,532
	0.0152	287	89	323	399	308	670
Yellow Perch	0.0400	110	288	868	371	229	1,866
	0.0156	123	171	484	352	211	669
Bluegill	0.8833	10,051	8,239	6,602	7,868	8,464	41,225
	0.2623	7,095	2,793	3,471	4,316	4,419	10,409
Rock bass	0.0762	1,467	751	570	629	139	3,556
	0.0337	1,163	427	418	637	211	1,470
Black crappie	0.1604	2,825	1,319	2,243	731	368	7,485
	0.0639	2,005	815	1,579	476	323	2,741
Channel catfish	0.0053	36	103	17	53	41	249
	0.0034	53	104	33	52	82	155
Carp	0.0004	0	0	17	0	0	17
	0.0007	0	0	33	0	0	33
Muskellunge	0.0030	17	13	52	10	46	139
	0.0022	34	26	62	20	65	102
White bass	0.0003	0	0	0	13	0	13
	0.0006	0	0	0	26	0	26
TOTAL RELEASED	1.9561	22,294	16,948	21,068	17,283	13,699	91,290
	0.4134	8,337	3,555	5,399	5,638	5,040	12,980
TOTAL CATCH	3.1412	33,397	26,794	31,934	29,290	25,182	146,598
	0.6213	10,268	4,801	7,425	8,801	7,362	17,755
ANGLER HOURS		9,090	8,740	11,767	9,927	7,146	46,670
		4,276	1,934	3,500	3,364	2,772	7,298
ANGLER TRIPS		2,345	2,139	3,113	2,249	1,779	11,626
		1,243	500	990	719	728	1,955