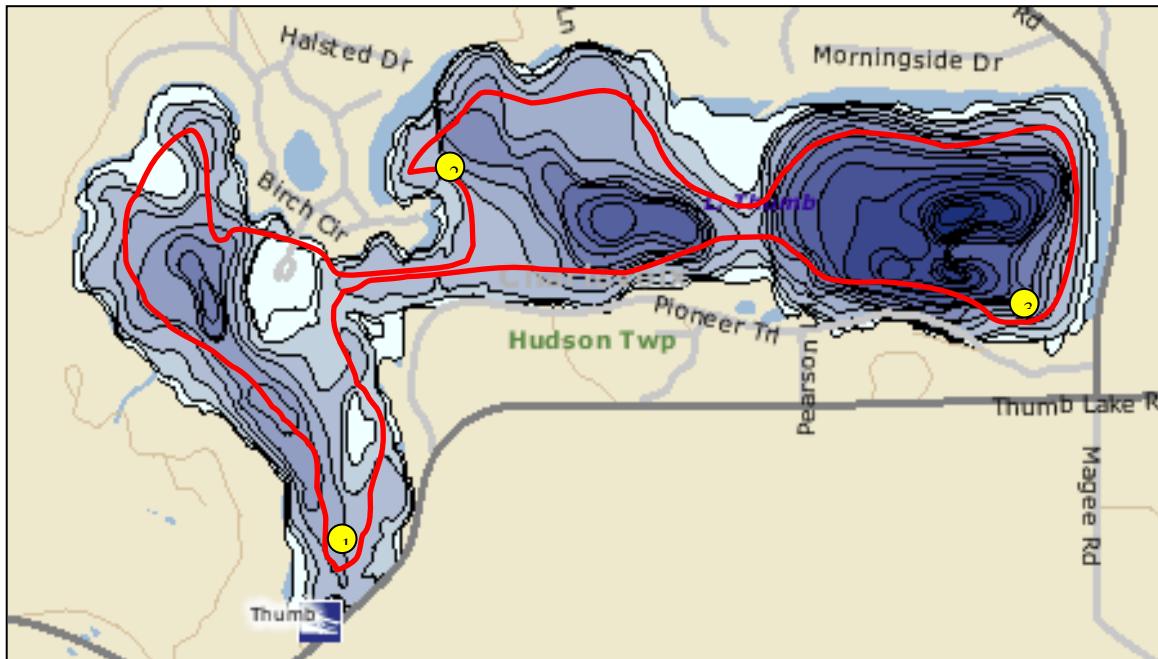


Survey Report for Thumb Lake, Charlevoix , Summer, 2007

Waterbody	Thumb Lake
Year	Summer, 2007
County	Charlevoix
Sites	"Thumb Lake"
Survey period	April 28 to September 30
Survey design	Roving-roving (roving counts and interviews)
Interview type/mode	access/boat, shore
Count type/mode	roving/boat and shore
Clerk time	full time
Survey purpose	Characterize general effort and catch aspects of the fishery

Notes

Survey followed a roving-roving (roving counts and interviews) design. All funding was provided through Fisheries Division. One clerk worked full time to collect angler survey data. Both weekend days and 3 randomly selected weekdays were selected for sampling during each week of the survey season. No holidays were sampled. 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 counts of anglers were made once per day. Survey period for both counts and interviews was April 28 to September 30. Months were estimated separately. Estimates are given in Tables xxx.



Estimated harvest, catch per hour, and fishing pressure for Thumb Lake, boat. Two standard errors are given in parentheses.

Species	C/H	April-May	June	July	August	September	Season
HARVEST							
Largemouth bass	0.0067 (0.0065)	0 (0)	37 (35)	0 (0)	0 (0)	0 (0)	37 (35)
Smallmouth bass	0.0233 (0.0143)	34 (40)	69 (56)	12 (23)	10 (12)	5 (7)	129 (74)
Yellow Perch	0.0124 (0.0124)	0 (0)	2 (5)	52 (64)	15 (22)	0 (0)	69 (67)
Bluegill	0.0351 (0.0212)	31 (49)	85 (64)	75 (73)	4 (8)	0 (0)	195 (109)
Pumpkinseed	0.0005 (0.0011)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	3 (6)
Rock bass	0.0144 (0.0196)	8 (16)	72 (106)	0 (0)	0 (0)	0 (0)	80 (107)
Brown bullhead	0.0012 (0.0025)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	7 (14)
Splake	0.0201 (0.0113)	16 (19)	44 (36)	21 (26)	23 (28)	8 (13)	112 (57)
TOTAL HARVEST	0.1138 (0.0434)	89 (68)	316 (146)	162 (103)	52 (38)	13 (15)	632 (195)
RELEASED							
Northern pike	0.0011 (0.0021)	0 (0)	0 (0)	6 (12)	0 (0)	0 (0)	6 (12)
Largemouth bass	0.0450 (0.0255)	69 (69)	169 (109)	3 (6)	0 (0)	9 (14)	250 (130)
Smallmouth bass	0.2598 (0.1237)	565 (502)	540 (308)	132 (81)	171 (113)	36 (39)	1,444 (606)
Yellow Perch	0.2495 (0.1651)	180 (263)	112 (113)	291 (268)	409 (449)	394 (624)	1,386 (863)
Bluegill	0.0623 (0.0675)	64 (83)	16 (23)	259 (357)	7 (15)	0 (0)	346 (367)
Pumpkinseed	0.0066 (0.0085)	0 (0)	0 (0)	24 (43)	7 (15)	6 (11)	37 (46)
Rock bass	0.1628 (0.0921)	77 (105)	690 (444)	122 (112)	8 (9)	8 (15)	905 (470)
Brown bullhead	0.0093 (0.0133)	0 (0)	7 (14)	45 (71)	0 (0)	0 (0)	52 (73)
Splake	0.0197 (0.0128)	24 (27)	70 (59)	6 (12)	10 (13)	0 (0)	110 (67)
TOTAL RELEASED	0.8161 (0.2863)	979 (587)	1,604 (567)	887 (475)	613 (464)	453 (625)	4,535 (1,223)
TOTAL CATCH	0.9299 (0.3053)	1,068 (591)	1,920 (585)	1,049 (486)	664 (465)	466 (625)	5,167 (1,239)
ANGLER HOURS		714 (438)	2,102 (775)	1,440 (639)	892 (466)	409 (366)	5,556 (1,246)
ANGLER TRIPS		239 (152)	714 (282)	558 (268)	295 (160)	121 (108)	1,927 (460)

Estimated harvest, catch per hour, and fishing pressure for Thumb Lake, shore. Two standard errors are given in parentheses.

Species	C/H	April-May	June	July	August	September	Season
HARVEST							
Largemouth bass	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Smallmouth bass	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Yellow Perch	0.0207 (0.0248)	13 (22)	4 (8)	0 (0)	8 (17)	0 (0)	26 (29)
Bluegill	0.0016 (0.0032)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	2 (4)
Pumpkinseed	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Rock bass	0.0159 (0.0240)	18 (28)	2 (4)	0 (0)	0 (0)	0 (0)	20 (28)
Brown bullhead	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Splake	0.0119 (0.0244)	15 (30)	0 (0)	0 (0)	0 (0)	0 (0)	15 (30)
TOTAL HARVEST	0.0501 (0.0459)	46 (46)	8 (9)	0 (0)	8 (17)	0 (0)	62 (50)
RELEASED							
Northern pike	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Largemouth bass	0.0168 (0.0232)	0 (0)	2 (3)	2 (4)	17 (27)	0 (0)	21 (27)
Smallmouth bass	0.0960 (0.0725)	7 (15)	16 (19)	34 (34)	53 (59)	8 (16)	119 (74)
Yellow Perch	0.2487 (0.1974)	53 (72)	33 (36)	135 (171)	69 (72)	18 (37)	308 (206)
Bluegill	0.1114 (0.1291)	0 (0)	2 (4)	26 (27)	110 (146)	0 (0)	138 (148)
Pumpkinseed	0.0078 (0.0142)	0 (0)	0 (0)	1 (3)	8 (17)	0 (0)	10 (17)
Rock bass	0.1288 (0.1374)	15 (24)	7 (12)	27 (33)	109 (150)	1 (2)	159 (156)
Brown bullhead	0.0047 (0.0096)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)	6 (12)
Splake	0.0119 (0.0244)	15 (30)	0 (0)	0 (0)	0 (0)	0 (0)	15 (30)
TOTAL RELEASED	0.6262 (0.3672)	90 (83)	65 (44)	225 (179)	367 (231)	27 (40)	775 (310)
TOTAL CATCH	0.6763 (0.3853)	136 (95)	73 (45)	225 (179)	376 (232)	27 (40)	836 (314)
ANGLER HOURS		299 (324)	208 (136)	294 (214)	392 (323)	44 (88)	1,237 (530)
ANGLER TRIPS		239 (265)	104 (80)	229 (170)	290 (278)	32 (67)	894 (433)

Estimated harvest, catch per hour, and fishing pressure for Thumb Lake total. Two standard errors are given in parentheses.

Species	C/H	April-May	June	July	August	September	Season
HARVEST							
Largemouth bass	0.0055 (0.0053)	0 (0)	37 (35)	0 (0)	0 (0)	0 (0)	37 (35)
Smallmouth bass	0.0191 (0.0115)	34 (40)	69 (56)	12 (23)	10 (12)	5 (7)	129 (74)
Yellow Perch	0.0139 (0.0111)	13 (22)	6 (9)	52 (64)	23 (27)	0 (0)	94 (73)
Bluegill	0.0290 (0.0171)	31 (49)	87 (64)	75 (73)	4 (8)	0 (0)	197 (109)
Pumpkinseed	0.0004 (0.0009)	0 (0)	0 (0)	3 (6)	0 (0)	0 (0)	3 (6)
Rock bass	0.0146 (0.0166)	26 (32)	74 (106)	0 (0)	0 (0)	0 (0)	99 (111)
Brown bullhead	0.0010 (0.0020)	0 (0)	7 (14)	0 (0)	0 (0)	0 (0)	7 (14)
Splake	0.0186 (0.0102)	31 (35)	44 (36)	21 (26)	23 (28)	8 (13)	127 (65)
TOTAL HARVEST	0.1022 (0.0360)	135 (82)	324 (146)	162 (103)	60 (42)	13 (15)	694 (202)
RELEASED							
Northern pike	0.0009 (0.0017)	0 (0)	0 (0)	6 (12)	0 (0)	0 (0)	6 (12)
Largemouth bass	0.0399 (0.0211)	69 (69)	171 (109)	5 (7)	17 (27)	9 (14)	271 (133)
Smallmouth bass	0.2300 (0.1009)	572 (502)	555 (309)	166 (88)	225 (128)	44 (43)	1,563 (611)
Yellow Perch	0.2493 (0.1397)	233 (273)	145 (118)	426 (318)	478 (455)	412 (625)	1,694 (887)
Bluegill	0.0712 (0.0600)	64 (83)	18 (23)	284 (358)	118 (147)	0 (0)	484 (396)
Pumpkinseed	0.0068 (0.0074)	0 (0)	0 (0)	25 (43)	16 (22)	6 (11)	46 (50)
Rock bass	0.1566 (0.0793)	92 (107)	698 (444)	149 (116)	117 (150)	8 (15)	1,064 (495)
Brown bullhead	0.0085 (0.0110)	0 (0)	13 (18)	45 (71)	0 (0)	0 (0)	58 (74)
Splake	0.0183 (0.0114)	39 (40)	70 (59)	6 (12)	10 (13)	0 (0)	124 (73)
TOTAL RELEASED	0.7816 (0.2424)	1,069 (593)	1,669 (568)	1,112 (507)	980 (518)	480 (627)	5,309 (1,262)
TOTAL CATCH	0.8837 (0.2577)	1,204 (598)	1,993 (587)	1,274 (518)	1,040 (520)	493 (627)	6,003 (1,278)
ANGLER HOURS		1,013 (545)	2,310 (787)	1,733 (674)	1,284 (567)	453 (376)	6,793 (1,354)
ANGLER TRIPS		478 (305)	818 (293)	787 (317)	585 (321)	153 (127)	2,821 (632)