

Creel Survey Report for Glen Lake , Winter, 2009

Waterbody	Glen Lake
Year	Winter, 2009
County	Leelanau County
Survey period	January 13 to March 22
Survey design	Roving – roving
Modes	Open-ice, shanty
Clerk time	Full
Survey purpose	Characterize general effort and catch aspects of the winter fishery

Notes:

Survey followed a roving-roving design. All funding was provided through Fisheries Division. One clerk worked full-time to collect angling (interview and count) 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. Starting location within a section and direction of travel were randomized for both counting and interviewing. Counts of open-ice anglers and occupied shanties were made once per day. Survey period for both counts and interviews was January 13 to March 22. Months were estimated separately. Estimates are given in the following tables.

Work shifts used to estimate catch and effort at Glen Lake, January 13 to March 22, Winter, 2009

Month	Year	#hrs/day
Jan	2009	11
Feb	2009	11
March	2009	13

Estimated harvest, catch per hour (C/H), and fishing pressure for Glen Lake – open-ice.
Two standard errors are given in parentheses.

Species	C/H	January	February	March	Season	Win C/H	Win Season
HARVEST							
Yellow Perch	0.9841 (0.5297)	2,702 (1,568)	988 (884)	1,636 (852)	5,326 (1,992)	0.9841 (0.3691)	5,326 (1,992)
Common white sucker	0.0013 (0.0020)	4 (9)	0 (0)	3 (5)	7 (10)	0.0013 (0.0019)	7 (10)
Lake trout	0.0012 (0.0019)	7 (10)	0 (0)	0 (0)	7 (10)	0.0012 (0.0018)	7 (10)
Channel catfish	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Rainbow smelt	0.0107 (0.0128)	0 (0)	18 (28)	40 (59)	58 (65)	0.0107 (0.0121)	58 (65)
Cisco	0.0094 (0.0096)	41 (46)	10 (15)	0 (0)	51 (48)	0.0094 (0.0089)	51 (48)
TOTAL HARVEST	1.0068 (0.5362)	2,753 (1,569)	1,017 (885)	1,678 (854)	5,449 (1,994)	1.0068 (0.5362)	5,449 (1,994)
RELEASED							
Yellow Perch	0.1099 (0.0682)	338 (241)	79 (90)	178 (131)	595 (288)	0.1099 (0.0533)	595 (288)
Rock bass	0.0018 (0.0036)	10 (19)	0 (0)	0 (0)	10 (19)	0.0018 (0.0036)	10 (19)
Common white sucker	0.0007 (0.0013)	0 (0)	4 (7)	0 (0)	4 (7)	0.0007 (0.0013)	4 (7)
TOTAL RELEASED	0.1123 (0.0688)	348 (241)	82 (90)	178 (131)	608 (289)	0.1123 (0.0688)	608 (289)
TOTAL CATCH	1.1191 (0.5711)	3,101 (1,588)	1,099 (889)	1,856 (864)	6,056 (2,015)	1.1191 (0.5711)	6,056 (2,015)
ANGLER HOURS		2,445 (1,271)	1,896 (1,578)	1,070 (528)	5,412 (2,094)		5,412 (2,094)
ANGLER TRIPS		511 (281)	122 (187)	226 (117)	859 (358)		859 (358)

Estimated harvest, catch per hour (C/H), and fishing pressure for Glen Lake-shanty. Two standard errors are given in parentheses.

Species	C/H	January	February	March	Season	Win C/H	Win Season
HARVEST							
Yellow Perch	1.0530 (0.7743)	143 (166)	202 (404)	391 NAN	736 (437)	1.0530 (0.6303)	736 (437)
Common white sucker	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Lake trout	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Channel catfish	0.0009 (0.0019)	0 (0)	0 (0)	1 (1)	1 (1)	0.0009 (0.0018)	1 (1)
Rainbow smelt	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Cisco	0.0004 (0.0011)	0 (0)	0 (0)	0 (1)	0 (1)	0.0004 (0.0011)	0 (1)
TOTAL HARVEST	1.0544 (0.7747)	143 (166)	202 (404)	392 NAN	737 (437)	1.0544 NAN	737 NAN
RELEASED							
Yellow Perch	0.1803 (0.1171)	53 (61)	0 (0)	73 NAN	126 (61)	0.1803 (0.0882)	126 (61)
Rock bass	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Common white sucker	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
TOTAL RELEASED	0.1803 (0.1171)	53 (61)	0 (0)	73 NAN	126 (61)	0.1803 NAN	126 NAN
TOTAL CATCH	1.2347 (0.8279)	195 (177)	202 (404)	466 NAN	863 (441)	1.2347 NAN	863 NAN
ANGLER HOURS		214 NAN	152 (303)	334 NAN	699 (303)		699 (NAN)
ANGLER TRIPS		28 NAN	30 (61)	14 NAN	72 (61)		72 (NAN)

Estimated harvest, catch per hour (C/H), and fishing pressure for Glen Lake – all modes.
Two standard errors are given in parentheses.

Species	C/H	January	February	March	Season	Win C/H	Win Season
HARVEST							
Yellow Perch	0.9920 (0.4000)	2,844 (1,577)	1,191 (972)	2,027 NAN	6,062 (1,853)	0.9920 (0.3043)	6,062 (1,853)
Common white sucker	0.0011 (0.0017)	4 (9)	0 (0)	3 (5)	7 (10)	0.0011 (0.0017)	7 (10)
Lake trout	0.0011 (0.0016)	7 (10)	0 (0)	0 (0)	7 (10)	0.0011 (0.0016)	7 (10)
Channel catfish	0.0001 (0.0002)	0 (0)	0 (0)	1 (1)	1 (1)	0.0001 (0.0002)	1 (1)
Rainbow smelt	0.0095 (0.0110)	0 (0)	18 (28)	40 (59)	58 (65)	0.0095 (0.0107)	58 (65)
Cisco	0.0084 (0.0082)	41 (46)	10 (15)	0 (1)	51 (48)	0.0084 (0.0079)	51 (48)
TOTAL HARVEST	1.0122 (0.4036)	2,896 (1,578)	1,219 (973)	2,071 NAN	6,186 (1,854)	1.0122 NAN	6,186 NAN
RELEASED							
Yellow Perch	0.1179 (0.0532)	391 (248)	79 (90)	251 NAN	721 (264)	0.1179 (0.0433)	721 (264)
Rock bass	0.0016 (0.0032)	10 (19)	0 (0)	0 (0)	10 (19)	0.0016 (0.0032)	10 (19)
Common white sucker	0.0006 (0.0012)	0 (0)	4 (7)	0 (0)	4 (7)	0.0006 (0.0012)	4 (7)
TOTAL RELEASED	0.1201 (0.0536)	401 (249)	82 (90)	251 NAN	734 (265)	0.1201 NAN	734 NAN
TOTAL CATCH	1.1323 (0.4273)	3,297 (1,597)	1,301 (977)	2,321 NAN	6,919 (1,873)	1.1323 NAN	6,919 NAN
ANGLER HOURS		2,659 NAN	2,048 (1,607)	1,404 NAN	6,111 (1,607)		6,111 (NAN)
ANGLER TRIPS		538 NAN	152 (197)	241 NAN	931 (197)		931 (NAN)