

FISHERIES DIVISION

TECHNICAL REPORT

Sportfishing Catch and Effort from the Michigan Waters of Lakes Michigan, Huron, Superior, and Erie, and their Important Tributary Streams,

April 1, 1987 - March 31, 1988

(Appendices)

Gerald P. Rakoczy
and
Richard D. Rogers

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Michigan Department of
Natural Resources

**MICHIGAN DEPARTMENT OF NATURAL RESOURCES
FISHERIES DIVISION**

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OF LAKES MICHIGAN, HURON, SUPERIOR, AND ERIE,
AND THEIR IMPORTANT TRIBUTARY STREAMS,
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(APPENDICES)¹**

Gerald P. Rakoczy

and

Richard D. Rogers

¹Contribution from Dingell-Johnson Project F-53-R, Michigan

TABLE OF CONTENTS

	Page
Appendices	1
Section I. Lake Michigan catch and effort estimates by site	2
Section II. Lake Huron catch and effort estimates by site	39
Section III. Lake Erie catch and effort estimates by site	70
Section IV. Lake Superior catch and effort estimates by site	74
Section V. River catch and effort estimates by site	81
Section VI. Winter catch and effort estimates by site.	103

APPENDICES

SECTION I

Lake Michigan Catch and Effort Estimates by Site

Appendix 1. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for New Buffalo, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0385 (0.0464)	542 (813)	4,472 (5,715)	8 (22)	794 (1,741)	0 (0)	0 (0)	0 (0)	5,816 (6,029)
Chinook salmon	0.0156 (0.0186)	42 (118)	1,592 (2,082)	13 (37)	529 (1,161)	0 (0)	142 (308)	37 (90)	2,355 (2,409)
Rainbow trout	0.0017 (0.0027)	0 (0)	149 (286)	108 (235)	0 (0)	0 (0)	0 (0)	0 (0)	257 (370)
Brown trout	0.0007 (0.0014)	0 (0)	107 (199)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	107 (199)
Lake trout	0.0232 (0.0299)	0 (0)	3,504 (3,980)	0 (0)	0 (0)	4 (19)	0 (0)	0 (0)	3,508 (3,980)
Channel catfish	0.0017 (0.0041)	0 (0)	0 (0)	0 (0)	257 (592)	0 (0)	0 (0)	0 (0)	257 (592)
Rock bass	0.0002 (0.0006)	0 (0)	0 (0)	30 (85)	0 (0)	0 (0)	0 (0)	0 (0)	30 (85)
White crappie	0.0017 (0.0041)	0 (0)	256 (599)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	256 (599)
Black crappie	0.0002 (0.0006)	0 (0)	0 (0)	24 (68)	0 (0)	0 (0)	0 (0)	0 (0)	24 (68)
Yellow perch	0.4792 (0.5017)	0 (0)	1,034 (2,423)	3,830 (6,610)	57,336 (57,164)	10,200 (21,282)	0 (0)	0 (0)	72,400 (61,402)
Total	0.5626 (0.5357)	584 (822)	11,114 (7,693)	4,013 (6,615)	58,916 (57,205)	10,204 (21,282)	142 (308)	37 (90)	85,010 (61,879)
Angler hours		3,357 (5,373)	84,445 (85,751)	2,440 (3,831)	25,781 (19,497)	5,353 (14,299)	29,184 (24,923)	529 (703)	151,089 (92,752)
Angler trips		629 (1,053)	15,462 (14,069)	477 (730)	7,145 (5,130)	916 (2,298)	7,401 (6,834)	148 (210)	32,178 (16,671)
Angler days		629 (1,053)	13,116 (13,396)	477 (730)	7,145 (5,130)	916 (2,298)	7,181 (6,812)	92 (131)	29,556 (16,097)

Appendix 2. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for St. Joseph-Benton Harbor, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0227 (0.0167)	6,951 (5,538)	1,068 (1,541)	300 (637)	0 (0)	0 (0)	84 (146)	0 (0)	8,403 (5,785)
Chinook salmon	0.0250 (0.0154)	1,521 (1,133)	959 (1,494)	300 (637)	1,852 (2,072)	2,767 (3,996)	2,347 (1,633)	0 (0)	9,246 (5,182)
Rainbow trout	0.0038 (0.0030)	0 (0)	107 (302)	300 (637)	328 (372)	20 (46)	240 (319)	420 (615)	1,415 (1,057)
Brown trout	0.0001 (0.0002)	8 (22)	0 (0)	0 (0)	37 (75)	0 (0)	0 (0)	0 (0)	45 (78)
Lake trout	0.0275 (0.0234)	0 (0)	7,625 (7,858)	806 (1,719)	410 (472)	1,335 (1,885)	0 (0)	0 (0)	10,176 (8,275)
Channel catfish	0.0020 (0.0026)	0 (0)	0 (0)	300 (637)	329 (673)	0 (0)	114 (252)	0 (0)	743 (960)
Rock bass	0.0016 (0.0034)	0 (0)	0 (0)	600 (1,275)	0 (0)	0 (0)	0 (0)	0 (0)	600 (1,275)
Smallmouth bass	0.0040 (0.0062)	0 (0)	0 (0)	1,468 (2,227)	0 (0)	0 (0)	0 (0)	0 (0)	1,468 (2,227)
Yellow perch	1.2132 (0.8643)	0 (0)	0 (0)	122,255 (107,319)	64,997 (36,518)	248,629 (274,271)	14,659 (18,884)	0 (0)	448,285 (298,522)
Walleye	0.0133 (0.0258)	0 (0)	0 (0)	758 (1,610)	0 (0)	0 (0)	4,146 (9,295)	0 (0)	4,904 (9,433)
Freshwater drum	0.0053 (0.0063)	75 (209)	0 (0)	1,513 (2,153)	0 (0)	84 (188)	286 (617)	0 (0)	1,958 (2,257)
Round whitefish	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (12)	3 (12)

Appendix 2. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	1.3248 (0.8759)	8,555 (5,657)	9,759 (8,151)	128,600 (107,405)	67,453 (36,585)	252,835 (274,307)	21,876 (21,124)	423 (615)	489,501 (297,764)
Angler hours		50,065 (11,191)	78,732 (68,480)	68,473 (32,473)	44,829 (24,254)	72,172 (37,340)	52,683 (29,985)	2,546 (1,985)	369,500 (93,567)
Angler trips		9,152 (2,547)	12,207 (10,601)	14,071 (6,563)	8,430 (4,445)	13,186 (6,849)	10,137 (5,569)	653 (529)	67,836 (16,121)
Angler days		9,033 (2,485)	10,646 (9,357)	14,015 (6,552)	7,668 (4,184)	12,310 (6,501)	8,332 (4,702)	565 (465)	62,569 (14,790)

Appendix 3. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Saugatuck boat fishery, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0095 (0.0067)	1,562 (1,194)	419 (780)	197 (432)	115 (240)	115 (243)	0 (0)	0 (0)	2,408 (1,529)
Chinook salmon	0.0465 (0.0288)	172 (174)	787 (1,039)	614 (795)	6,406 (5,433)	3,764 (2,974)	0 (0)	0 (0)	11,743 (6,333)
Rainbow trout	0.0023 (0.0025)	20 (41)	0 (0)	66 (144)	307 (513)	176 (267)	0 (0)	0 (0)	569 (597)
Brown trout	0.0057 (0.0055)	202 (239)	0 (0)	144 (314)	307 (463)	792 (1,178)	0 (0)	0 (0)	1,445 (1,326)
Lake trout	0.0356 (0.0248)	0 (0)	1,092 (1,036)	1,587 (1,813)	5,481 (5,126)	823 (1,044)	0 (0)	0 (0)	8,983 (5,633)
Northern pike	0.0026 (0.0039)	162 (246)	501 (940)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	663 (972)
Channel catfish	0.0288 (0.0348)	5,964 (8,401)	337 (591)	32 (75)	465 (709)	476 (1,001)	0 (0)	0 (0)	7,274 (8,511)
Pumpkinseed	0.0050 (0.0106)	0 (0)	0 (0)	0 (0)	0 (0)	1,269 (2,671)	0 (0)	0 (0)	1,269 (2,671)
Bluegill	0.0038 (0.0081)	0 (0)	0 (0)	0 (0)	0 (0)	952 (2,003)	0 (0)	0 (0)	952 (2,003)
Smallmouth bass	0.0047 (0.0099)	0 (0)	0 (0)	0 (0)	1,184 (2,467)	0 (0)	0 (0)	0 (0)	1,184 (2,467)
Largemouth bass	0.0005 (0.0011)	0 (0)	122 (278)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	122 (278)
Black crappie	0.0121 (0.0206)	2,379 (4,908)	684 (1,481)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3,063 (5,127)
Yellow perch	0.4267 (0.3587)	0 (0)	41 (93)	78,798 (75,028)	21,561 (37,502)	7,323 (9,343)	0 (0)	0 (0)	107,723 (84,397)
Walleye	0.0049 (0.0075)	31 (65)	0 (0)	1,197 (1,831)	0 (0)	0 (0)	0 (0)	0 (0)	1,228 (1,832)
Freshwater drum	0.0083 (0.0095)	126 (262)	1,072 (1,962)	359 (650)	12 (35)	519 (1,006)	0 (0)	0 (0)	2,088 (2,314)

Appendix 3. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.5970 (0.3847)	10,618 (9,814)	5,055 (3,182)	82,994 (75,081)	35,838 (38,332)	16,209 (10,578)	0 (0)	0 (0)	150,714 (85,585)
Angler hours		29,974 (23,854)	17,661 (17,525)	50,529 (36,602)	89,146 (51,807)	65,157 (31,918)	0 (0)	0 (0)	252,467 (76,932)
Angler trips		4,001 (2,435)	3,214 (3,070)	9,193 (6,786)	18,540 (10,877)	11,046 (5,445)	0 (0)	0 (0)	45,994 (14,469)
Angler days		3,757 (2,359)	3,214 (3,070)	9,193 (6,786)	17,982 (10,603)	11,046 (5,445)	0 (0)	0 (0)	45,192 (14,252)

Appendix 4. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for South Haven, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	13 (26)	0 (0)	13 (26)
Coho salmon	0.0310 (0.0171)	3,187 (2,148)	6,922 (4,639)	9 (23)	0 (0)	46 (101)	8 (17)	0 (0)	10,172 (5,113)
Chinook salmon	0.0135 (0.0072)	223 (462)	938 (780)	109 (170)	2,553 (1,847)	320 (409)	297 (324)	0 (0)	4,440 (2,129)
Rainbow trout	0.0058 (0.0030)	277 (369)	0 (0)	211 (294)	142 (287)	23 (51)	16 (31)	1,230 (686)	1,899 (883)
Brown trout	0.0015 (0.0015)	228 (341)	155 (243)	7 (17)	103 (209)	0 (0)	0 (0)	0 (0)	493 (468)
Lake trout	0.0202 (0.0128)	0 (0)	5,613 (3,846)	135 (281)	652 (646)	213 (304)	0 (0)	0 (0)	6,613 (3,922)
Channel catfish	0.0005 (0.0014)	0 (0)	0 (0)	0 (0)	155 (430)	0 (0)	0 (0)	0 (0)	155 (430)
Yellow perch	0.9576 (0.7863)	0 (0)	2,328 (5,365)	69,433 (43,766)	225,009 (242,392)	16,967 (25,872)	63 (133)	0 (0)	313,800 (247,725)
Freshwater drum	0.0005 (0.0008)	0 (0)	0 (0)	106 (212)	49 (105)	0 (0)	0 (0)	0 (0)	155 (237)
Total	1.0307 (0.7914)	3,915 (2,254)	15,956 (8,109)	70,010 (43,769)	228,663 (242,401)	17,569 (25,877)	397 (353)	1,230 (686)	337,740 (247,821)
Angler hours		37,067 (22,712)	77,876 (37,830)	30,896 (18,885)	114,502 (50,283)	41,939 (24,181)	19,356 (8,337)	6,060 (1,199)	327,696 (74,079)
Angler trips		8,665 (4,511)	12,516 (6,219)	6,874 (3,533)	22,804 (9,503)	12,928 (6,257)	5,694 (2,392)	1,257 (350)	70,738 (14,381)
Angler days		8,074 (4,476)	12,077 (6,039)	6,874 (3,533)	22,712 (9,495)	12,928 (6,257)	5,039 (2,370)	1,093 (336)	68,797 (14,284)

Appendix 5. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Holland, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0359 (0.0372)	6,448 (9,290)	3,379 (4,423)	115 (237)	0 (0)	245 (500)	94 (192)	0 (0)	10,281 (10,306)
Chinook salmon	0.0472 (0.0319)	0 (0)	3,862 (5,469)	680 (1,155)	0 (0)	4,589 (3,695)	4,234 (5,050)	150 (203)	13,515 (8,393)
Rainbow trout	0.0025 (0.0025)	0 (0)	0 (0)	151 (244)	0 (0)	221 (517)	337 (358)	5 (9)	714 (675)
Brown trout	0.0023 (0.0030)	115 (159)	493 (822)	0 (0)	0 (0)	0 (0)	61 (125)	0 (0)	669 (847)
Lake trout	0.0304 (0.0324)	0 (0)	7,301 (8,851)	657 (1,085)	0 (0)	731 (904)	0 (0)	0 (0)	8,689 (8,963)
Yellow perch	0.4437 (0.2560)	484 (742)	95 (204)	44,062 (21,510)	0 (0)	50,408 (54,874)	31,861 (27,179)	0 (0)	126,910 (64,909)
Round whitefish	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	48 (104)	48 (104)
Total	0.5622 (0.2779)	7,047 (9,321)	15,130 (11,337)	45,665 (21,571)	0 (0)	56,194 (55,010)	36,587 (27,647)	203 (228)	160,826 (66,867)
Angler hours		59,759 (41,115)	92,040 (51,131)	29,669 (9,901)	0 (0)	57,553 (24,772)	44,747 (28,687)	2,284 (1,657)	286,052 (76,434)
Angler trips		13,427 (7,473)	18,554 (10,903)	8,281 (2,846)	0 (0)	12,793 (5,142)	11,347 (8,182)	909 (701)	65,311 (16,634)
Angler days		13,314 (7,473)	18,554 (10,903)	8,281 (2,846)	0 (0)	12,793 (5,142)	11,347 (8,182)	858 (664)	65,147 (16,633)

Appendix 6. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Port Sheldon boat fishery, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.1204 (0.1240)	10,655 (12,474)	1,114 (593)	548 (971)	0 (0)	0 (0)	0 (0)	0 (0)	12,317 (12,526)
Chinook salmon	0.0301 (0.0190)	853 (1,249)	940 (568)	1,282 (1,275)	0 (0)	0 (0)	0 (0)	0 (0)	3,075 (1,873)
Rainbow trout	0.0017 (0.0021)	0 (0)	76 (157)	93 (140)	0 (0)	0 (0)	0 (0)	0 (0)	169 (210)
Lake trout	0.0185 (0.0149)	0 (0)	259 (226)	1,635 (1,476)	0 (0)	0 (0)	0 (0)	0 (0)	1,894 (1,493)
Yellow perch	0.8095 (0.6363)	0 (0)	0 (0)	82,824 (63,649)	0 (0)	0 (0)	0 (0)	0 (0)	82,824 (63,649)
Total	0.9802 (0.6549)	11,508 (12,536)	2,389 (866)	86,382 (63,686)	0 (0)	0 (0)	0 (0)	0 (0)	100,279 (64,914)
Angler hours		54,758 (13,751)	17,907 (4,115)	29,644 (8,942)	0 (0)	25,937 (7,247)	9,952 (7,443)	441 (733)	102,309 (16,911)
Angler trips		10,584 (3,261)	3,302 (827)	5,559 (1,820)	0 (0)	0 (0)	0 (0)	0 (0)	19,445 (3,825)
Angler days		10,177 (3,203)	3,302 (827)	5,559 (1,820)	0 (0)	0 (0)	0 (0)	0 (0)	19,038 (3,776)

Appendix 7. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Grand Haven, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0258 (0.0139)	6,525 (5,729)	7,868 (5,771)	3,298 (4,895)	0 (0)	975 (2,317)	947 (1,245)	0 (0)	19,613 (9,849)
Chinook salmon	0.0505 (0.0256)	5,350 (3,574)	4,525 (3,900)	2,660 (3,988)	10,715 (11,039)	7,001 (9,802)	8,138 (7,935)	0 (0)	38,389 (18,022)
Rainbow trout	0.0013 (0.0011)	0 (0)	144 (249)	0 (0)	252 (438)	0 (0)	353 (436)	207 (413)	956 (784)
Brown trout	0.0013 (0.0010)	543 (683)	384 (329)	0 (0)	52 (106)	0 (0)	0 (0)	0 (0)	979 (765)
Lake trout	0.0266 (0.0153)	0 (0)	5,306 (4,211)	9,674 (8,805)	3,102 (3,437)	2,150 (3,657)	0 (0)	0 (0)	20,232 (10,975)
Channel catfish	0.0021 (0.0033)	0 (0)	0 (0)	239 (491)	91 (207)	1,257 (2,404)	0 (0)	0 (0)	1,587 (2,462)
Bluegill	<0.0001 (<0.0001)	0 (0)	10 (20)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	10 (20)
Smallmouth bass	0.0003 (0.0006)	0 (0)	0 (0)	209 (430)	0 (0)	0 (0)	0 (0)	0 (0)	209 (430)
Yellow perch	0.2806 (0.1147)	22,423 (44,167)	3,601 (3,074)	148,805 (58,577)	16,990 (14,473)	18,821 (18,173)	2,559 (2,964)	0 (0)	213,199 (77,071)
Walleye	0.0003 (0.0004)	0 (0)	0 (0)	140 (287)	0 (0)	0 (0)	104 (151)	0 (0)	244 (324)
Freshwater drum	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	61 (138)	0 (0)	0 (0)	0 (0)	61 (138)
Total	0.3889 (0.1295)	34,841 (44,685)	21,838 (8,710)	165,025 (59,575)	31,263 (18,531)	30,204 (21,233)	12,101 (8,574)	207 (413)	295,479 (80,559)
Angler hours		124,200 (22,672)	139,367 (56,656)	211,922 (88,443)	92,243 (48,437)	58,440 (44,780)	123,003 (72,106)	10,538 (1,004)	759,713 (145,251)
Angler trips		21,952 (4,231)	26,566 (10,649)	43,042 (17,030)	22,571 (10,252)	16,586 (11,786)	24,679 (12,892)	3,719 (834)	159,115 (28,849)
Angler days		21,325 (4,247)	26,347 (10,645)	42,679 (17,010)	22,465 (10,238)	16,586 (11,786)	24,443 (12,883)	3,719 (834)	157,564 (28,829)

Appendix 8. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Muskegon, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0079 (0.0088)	2,487 (2,925)	51 (104)	0 (0)	0 (0)	117 (181)	43 (88)	0 (0)	2,698 (2,934)
Chinook salmon	0.0817 (0.0850)	2,768 (3,316)	2,424 (1,864)	1,497 (1,689)	15,514 (27,570)	2,868 (2,532)	2,703 (3,949)	0 (0)	27,774 (28,274)
Rainbow trout	0.0032 (0.0046)	0 (0)	167 (271)	130 (280)	106 (220)	0 (0)	701 (1,503)	0 (0)	1,104 (1,568)
Brown trout	0.0079 (0.0100)	202 (449)	325 (660)	908 (1,961)	1,257 (2,610)	0 (0)	0 (0)	0 (0)	2,692 (3,361)
Lake trout	0.0208 (0.0222)	0 (0)	2,839 (2,079)	0 (0)	4,225 (7,071)	0 (0)	0 (0)	0 (0)	7,064 (7,370)
Smallmouth bass	0.0027 (0.0059)	0 (0)	0 (0)	908 (1,961)	0 (0)	0 (0)	0 (0)	0 (0)	908 (1,961)
White crappie	0.0013 (0.0027)	0 (0)	0 (0)	457 (954)	0 (0)	0 (0)	0 (0)	0 (0)	457 (954)
Yellow perch	0.9036 (0.5034)	13,817 (15,824)	2,480 (2,235)	62,605 (39,766)	166,310 (136,091)	62,114 (67,209)	0 (0)	0 (0)	307,326 (157,717)
Total	1.0292 (0.5220)	19,274 (16,436)	8,286 (3,649)	66,505 (39,911)	187,412 (139,060)	65,099 (67,257)	3,447 (4,226)	0 (0)	350,023 (160,485)
Angler hours		51,969 (34,590)	59,563 (17,823)	38,403 (11,096)	67,437 (26,584)	50,350 (21,140)	72,373 (51,461)	0 (0)	340,095 (73,750)
Angler trips		15,897 (9,668)	11,735 (3,603)	9,619 (3,021)	22,668 (8,954)	16,962 (6,723)	17,915 (13,533)	0 (0)	94,796 (20,594)
Angler days		15,553 (9,666)	11,197 (3,550)	9,569 (3,004)	20,031 (8,811)	16,398 (6,581)	15,888 (12,928)	0 (0)	88,636 (20,078)

Appendix 9. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for White Lake, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month	
		Jul	Season total
Chinook salmon	0.2832 (0.3716)	8,130 (9,947)	8,130 (9,947)
Rainbow trout	0.0186 (0.0388)	535 (1,087)	535 (1,087)
Lake trout	0.0194 (0.0307)	558 (842)	558 (842)
Rock bass	0.0039 (0.0082)	113 (232)	113 (232)
Pumpkinseed	0.0008 (0.0016)	23 (46)	23 (46)
Bluegill	0.0113 (0.0223)	324 (620)	324 (620)
Smallmouth bass	0.0070 (0.0082)	200 (213)	200 (213)
Largemouth bass	0.0141 (0.0292)	405 (817)	405 (817)
Freshwater drum	0.0017 (0.0029)	49 (81)	49 (81)
Total	0.3601 (0.3910)	10,337 (10,099)	10,337 (10,099)
Angler hours		28,704 (13,603)	28,704 (13,603)
Angler trips		8,034 (3,789)	8,034 (3,789)
Angler days		8,034 (3,789)	8,034 (3,789)

Appendix 10. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Pentwater, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0414 (0.0418)	7 (16)	1,108 (1,197)	1,385 (1,135)	0 (0)	616 (1,420)	5,232 (10,187)	3,496 (3,581)	0 (0)	11,844 (11,015)
Chinook salmon	0.0792 (0.0590)	0 (0)	236 (270)	820 (766)	3,312 (5,344)	3,115 (2,518)	8,421 (11,858)	6,783 (5,442)	0 (0)	22,687 (14,345)
Rainbow trout	0.0367 (0.0310)	1 (3)	45 (97)	43 (73)	158 (362)	0 (0)	71 (119)	9,989 (7,852)	191 (176)	10,498 (7,864)
Brown trout	0.0012 (0.0012)	87 (137)	105 (147)	33 (76)	0 (0)	0 (0)	108 (237)	0 (0)	0 (0)	333 (320)
Lake trout	0.0455 (0.0771)	0 (0)	0 (0)	1,424 (1,139)	11,074 (21,456)	400 (530)	139 (229)	0 (0)	0 (0)	13,037 (21,494)
Rock bass	0.0007 (0.0016)	0 (0)	0 (0)	0 (0)	211 (483)	0 (0)	0 (0)	0 (0)	0 (0)	211 (483)
Black crappie	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	68 (148)	0 (0)	0 (0)	0 (0)	68 (148)
Yellow perch	0.0575 (0.0438)	0 (0)	8,910 (6,605)	6,041 (8,200)	592 (980)	0 (0)	922 (1,964)	0 (0)	0 (0)	16,465 (10,756)
Round whitefish	0.0001 (0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	15 (14)	15 (14)
Total	0.2624 (0.1498)	95 (138)	10,404 (6,720)	9,746 (8,392)	15,347 (22,141)	4,199 (2,943)	14,893 (15,760)	20,268 (10,203)	206 (177)	75,158 (31,097)
Angler hours		1,492 (603)	22,412 (10,687)	25,336 (15,484)	44,164 (57,187)	33,584 (23,301)	64,112 (79,371)	92,474 (46,961)	2,828 (1,321)	286,402 (112,581)
Angler trips		530 (275)	5,410 (2,161)	5,127 (2,776)	6,837 (6,456)	10,329 (6,833)	19,420 (20,653)	16,976 (7,930)	797 (421)	65,426 (24,299)
Angler days		504 (268)	3,846 (1,873)	4,506 (2,510)	6,495 (6,446)	9,216 (6,703)	14,772 (14,978)	13,526 (6,905)	575 (315)	53,440 (19,196)

Appendix 11. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Ludington, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0004 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	173 (209)	62 (127)	0 (0)	235 (245)
Coho salmon	0.0283 (0.0129)	433 (261)	1,169 (1,351)	590 (694)	971 (1,455)	5,291 (3,816)	8,922 (4,593)	0 (0)	17,376 (6,336)
Chinook salmon	0.1352 (0.0691)	263 (296)	5,212 (5,577)	3,974 (3,158)	6,743 (7,479)	45,889 (33,098)	20,172 (9,100)	838 (1,278)	83,091 (35,735)
Rainbow trout	0.0155 (0.0081)	0 (0)	174 (341)	517 (515)	234 (344)	2,050 (2,410)	4,060 (2,310)	2,479 (2,448)	9,514 (4,200)
Atlantic salmon	0.0001 (0.0002)	0 (0)	0 (0)	53 (117)	0 (0)	39 (78)	0 (0)	0 (0)	92 (141)
Brown trout	0.0020 (0.0014)	387 (457)	182 (206)	346 (421)	31 (70)	270 (367)	0 (0)	0 (0)	1,216 (754)
Brook trout	0.0001 (0.0002)	0 (0)	91 (221)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	91 (221)
Lake trout	0.0177 (0.0099)	0 (0)	1,671 (2,007)	4,251 (2,865)	2,186 (2,895)	2,791 (2,685)	0 (0)	0 (0)	10,899 (5,275)
Northern pike	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	103 (212)	0 (0)	103 (212)
White sucker	0.0001 (0.0002)	48 (97)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	48 (97)
Smallmouth bass	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	68 (137)	0 (0)	0 (0)	0 (0)	68 (137)
Yellow perch	0.3740 (0.1820)	6,258 (5,194)	372 (575)	56,293 (42,270)	89,729 (76,277)	73,840 (28,378)	3,349 (6,867)	0 (0)	229,841 (92,112)
Round whitefish	0.0009 (0.0015)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	565 (933)	565 (933)
Other	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	151 (327)	0 (0)	0 (0)	151 (327)

Appendix 11. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.5749 (0.2264)	7,389 (5,230)	8,871 (6,123)	66,024 (42,496)	99,962 (76,712)	130,494 (43,917)	36,668 (12,508)	3,882 (2,915)	353,290 (99,243)
Angler hours		20,688 (3,975)	63,317 (61,447)	61,861 (30,328)	77,331 (63,744)	206,913 (129,719)	176,554 (56,207)	7,821 (2,784)	614,485 (169,613)
Angler trips		5,501 (994)	11,311 (10,333)	13,489 (5,782)	20,229 (14,055)	37,500 (22,048)	29,366 (8,823)	2,526 (893)	119,922 (30,058)
Angler days		4,276 (861)	9,820 (8,959)	11,782 (5,148)	17,475 (13,059)	32,499 (19,633)	24,240 (7,592)	2,320 (858)	102,412 (26,868)

Appendix 12. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Manistee, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0215 (0.0128)	0 (0)	46 (65)	134 (186)	658 (872)	294 (422)	1,983 (1,396)	7,816 (5,683)	30 (43)	10,961 (5,935)
Chinook salmon	0.0829 (0.0346)	0 (0)	157 (239)	1,961 (1,256)	1,001 (1,059)	12,150 (9,711)	15,369 (7,693)	11,476 (6,754)	125 (132)	42,239 (14,208)
Rainbow trout	0.0119 (0.0070)	43 (64)	34 (71)	75 (127)	2,121 (2,289)	348 (763)	279 (261)	2,011 (2,048)	1,154 (529)	6,065 (3,223)
Brown trout	0.0170 (0.0100)	150 (188)	189 (176)	4,151 (3,048)	1,654 (3,054)	937 (980)	1,368 (1,258)	224 (383)	0 (0)	8,673 (4,623)
Lake trout	0.0131 (0.0074)	0 (0)	0 (0)	1,791 (1,092)	1,548 (2,083)	2,761 (2,354)	572 (549)	0 (0)	0 (0)	6,672 (3,373)
Northern pike	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	53 (123)	0 (0)	53 (123)
Yellow perch	0.2645 (0.1362)	0 (0)	47,209 (25,396)	32,682 (32,820)	34,406 (32,630)	1,139 (2,356)	5,224 (7,582)	13,909 (29,230)	167 (336)	134,736 (60,864)
Round whitefish	0.0016 (0.0011)	141 (165)	16 (38)	0 (0)	207 (421)	0 (0)	0 (0)	0 (0)	426 (261)	790 (523)
Total	0.4126 (0.1605)	334 (258)	47,651 (25,398)	40,794 (33,004)	41,595 (32,950)	17,629 (10,350)	24,795 (10,980)	35,489 (30,605)	1,902 (693)	210,189 (63,126)
Angler hours		3,655 (1,312)	15,070 (5,355)	58,831 (24,051)	59,521 (45,179)	100,309 (75,208)	95,139 (34,273)	157,668 (79,790)	19,222 (4,689)	509,415 (125,973)
Angler trips		1,160 (351)	3,945 (1,463)	11,720 (4,834)	13,241 (8,976)	22,069 (16,037)	22,040 (7,300)	33,428 (16,923)	5,327 (1,369)	112,930 (26,551)
Angler days		850 (274)	3,439 (1,283)	9,491 (4,226)	11,090 (7,552)	18,789 (13,587)	18,885 (6,717)	25,695 (13,373)	4,366 (1,231)	92,605 (22,061)

Appendix 13. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Portage Lake, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month				Season total
		May	Jun	Jul	Aug	
Coho salmon	0.0053 (0.0075)	73 (211)	33 (42)	465 (851)	211 (320)	782 (934)
Chinook salmon	0.0627 (0.0877)	397 (856)	42 (51)	1,379 (1,924)	7,488 (10,766)	9,306 (10,970)
Rainbow trout	0.0162 (0.0247)	0 (0)	370 (323)	1,266 (2,868)	773 (1,360)	2,409 (3,191)
Brown trout	0.0142 (0.0178)	716 (789)	473 (1,221)	796 (1,531)	119 (168)	2,104 (2,118)
Lake trout	0.0155 (0.0188)	22 (47)	25 (33)	1,678 (1,969)	567 (952)	2,292 (2,188)
Rock bass	0.0079 (0.0110)	0 (0)	648 (1,125)	7 (18)	510 (785)	1,165 (1,372)
Bluegill	0.0024 (0.0060)	0 (0)	0 (0)	363 (871)	0 (0)	363 (871)
Smallmouth bass	0.0005 (0.0012)	0 (0)	72 (161)	0 (0)	0 (0)	72 (161)
Black crappie	0.1403 (0.3719)	0 (0)	0 (0)	210 (381)	20,603 (52,905)	20,813 (52,906)
Yellow perch	0.0867 (0.1275)	0 (0)	12,867 (16,251)	0 (0)	0 (0)	12,867 (16,251)
Total	0.3517 (0.4645)	1,208 (1,184)	14,530 (16,340)	6,164 (4,447)	30,271 (54,022)	52,173 (56,626)
Angler hours		8,611 (7,533)	8,601 (5,908)	61,287 (56,953)	69,848 (95,498)	148,347 (111,603)
Angler trips		1,526 (1,298)	2,359 (1,722)	9,633 (8,529)	12,186 (15,536)	25,704 (17,854)
Angler days		1,229 (998)	1,863 (1,336)	8,740 (7,805)	9,953 (12,709)	21,785 (15,007)

Appendix 14. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Frankfort-Elberta, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0399 (0.0240)	0 (0)	0 (0)	158 (197)	40 (85)	7,213 (7,484)	13,716 (7,506)	703 (370)	21,830 (10,608)
Chinook salmon	0.0785 (0.0596)	106 (148)	676 (348)	873 (870)	2,578 (1,615)	30,722 (28,414)	7,851 (4,465)	149 (133)	42,955 (28,824)
Rainbow trout	0.0114 (0.0051)	58 (140)	61 (79)	912 (794)	164 (208)	366 (514)	539 (564)	4,158 (1,229)	6,258 (1,671)
Brown trout	0.0096 (0.0051)	1,132 (1,128)	1,310 (933)	1,264 (1,091)	542 (412)	764 (792)	105 (221)	116 (111)	5,233 (2,047)
Lake trout	0.0192 (0.0112)	0 (0)	1,849 (868)	2,818 (2,684)	1,975 (1,261)	3,857 (3,788)	0 (0)	0 (0)	10,499 (4,888)
Rainbow smelt	0.0176 (0.0269)	9,643 (14,329)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	9,643 (14,329)
Northern pike	0.0003 (0.0004)	0 (0)	0 (0)	0 (0)	51 (84)	25 (63)	85 (180)	0 (0)	161 (208)
Yellow bullhead	0.0012 (0.0016)	0 (0)	0 (0)	0 (0)	659 (867)	0 (0)	0 (0)	0 (0)	659 (867)
Channel catfish	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	26 (57)	0 (0)	0 (0)	0 (0)	26 (57)
Rock bass	0.0004 (0.0008)	0 (0)	0 (0)	0 (0)	231 (478)	0 (0)	0 (0)	0 (0)	231 (478)
Smallmouth bass	0.0003 (0.0006)	0 (0)	0 (0)	0 (0)	174 (317)	0 (0)	0 (0)	0 (0)	174 (317)
Yellow perch	0.0122 (0.0109)	0 (0)	0 (0)	6,329 (5,410)	347 (767)	0 (0)	0 (0)	0 (0)	6,676 (5,464)
Round whitefish	0.0057 (0.0052)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3,113 (2,600)	3,113 (2,600)
Other	0.0005 (0.0009)	0 (0)	254 (489)	0 (0)	14 (31)	0 (0)	0 (0)	0 (0)	268 (490)

Appendix 14. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.1969 (0.0946)	10,939 (14,375)	4,150 (1,411)	12,354 (6,252)	6,801 (2,470)	42,947 (29,641)	22,296 (8,756)	8,239 (2,905)	107,726 (34,893)
Angler hours		21,289 (11,755)	31,730 (7,593)	49,970 (30,558)	47,775 (22,439)	196,982 (162,677)	170,414 (97,559)	28,980 (3,620)	547,140 (193,979)
Angler trips		5,416 (2,752)	6,667 (1,490)	11,624 (6,678)	13,274 (5,934)	45,092 (35,387)	36,532 (19,802)	8,640 (1,162)	127,245 (41,657)
Angler days		3,504 (1,816)	4,930 (1,168)	9,247 (5,464)	10,376 (4,679)	34,941 (27,927)	24,793 (14,212)	5,482 (847)	93,273 (32,234)

Appendix 15. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Platte Bay, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	1 (2)
Coho salmon	0.0725 (0.0191)	0 (0)	0 (0)	0 (0)	0 (0)	66 (70)	3,425 (830)	229 (293)	3,720 (883)
Chinook salmon	0.0201 (0.0070)	11 (22)	7 (16)	14 (31)	64 (130)	129 (186)	743 (242)	64 (52)	1,032 (338)
Rainbow trout	0.0179 (0.0055)	24 (37)	24 (37)	0 (0)	0 (0)	9 (20)	100 (96)	760 (236)	917 (261)
Brown trout	0.0080 (0.0061)	172 (138)	84 (151)	32 (51)	91 (227)	20 (33)	6 (12)	7 (11)	412 (312)
Lake trout	0.0016 (0.0024)	0 (0)	0 (0)	35 (80)	47 (95)	0 (0)	0 (0)	0 (0)	82 (124)
Yellow perch	0.3493 (0.4646)	0 (0)	0 (0)	17,609 (23,765)	326 (389)	0 (0)	0 (0)	0 (0)	17,935 (23,768)
Round whitefish	0.0029 (0.0036)	0 (0)	0 (0)	11 (24)	86 (173)	0 (0)	0 (0)	53 (60)	150 (185)
Total	0.4723 (0.4665)	207 (145)	115 (156)	17,701 (23,765)	614 (509)	224 (202)	4,274 (870)	1,114 (385)	24,249 (23,791)
Angler hours		8,895 (2,243)	950 (517)	2,350 (2,022)	2,424 (804)	1,679 (1,233)	29,834 (4,678)	5,210 (930)	51,342 (5,857)
Angler trips		2,062 (553)	367 (214)	570 (519)	592 (243)	377 (277)	5,842 (919)	1,218 (262)	11,028 (1,292)
Angler days		1,112 (320)	222 (141)	540 (490)	552 (207)	357 (265)	4,356 (713)	1,087 (244)	8,226 (1,021)

Appendix 16. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Leland, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jun	Jul	Aug	
Coho salmon	0.0038 (0.0033)	63 (121)	5 (10)	327 (289)	395 (313)
Chinook salmon	0.1636 (0.0913)	802 (982)	8,908 (6,198)	7,514 (4,439)	17,224 (7,687)
Rainbow trout	0.0036 (0.0032)	24 (39)	328 (307)	32 (42)	384 (312)
Brown trout	0.0059 (0.0058)	7 (18)	554 (570)	62 (69)	623 (574)
Lake trout	0.0345 (0.0192)	1,358 (1,069)	1,446 (1,009)	825 (671)	3,629 (1,616)
Yellow perch	0.0086 (0.0107)	466 (765)	355 (750)	81 (164)	902 (1,084)
Round whitefish	0.0003 (0.0006)	0 (0)	0 (0)	29 (61)	29 (61)
Total	0.2203 (0.1057)	2,720 (1,646)	11,596 (6,357)	8,870 (4,503)	23,186 (7,962)
Angler hours		14,668 (10,070)	41,569 (23,058)	49,020 (24,686)	105,257 (35,249)
Angler trips		3,309 (1,950)	7,765 (4,443)	8,663 (4,358)	19,737 (6,522)
Angler days		2,787 (1,726)	6,561 (3,771)	7,872 (3,967)	17,220 (5,739)

Appendix 17. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for West Arm Grand Traverse Bay, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0047 (0.0096)	0 (0)	0 (0)	0 (0)	0 (0)	737 (1,504)	0 (0)	0 (0)	737 (1,504)
Coho salmon	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	30 (61)	0 (0)	0 (0)	0 (0)	30 (61)
Chinook salmon	0.0277 (0.0120)	0 (0)	0 (0)	382 (417)	2,485 (1,440)	881 (883)	583 (428)	0 (0)	4,331 (1,792)
Rainbow trout	0.0025 (0.0030)	48 (107)	0 (0)	0 (0)	235 (406)	75 (153)	0 (0)	25 (54)	383 (450)
Brown trout	0.0032 (0.0039)	158 (242)	263 (538)	63 (130)	16 (33)	0 (0)	0 (0)	0 (0)	500 (605)
Brook trout	0.0012 (0.0027)	193 (427)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	193 (427)
Lake trout	0.0558 (0.0203)	0 (0)	1,497 (1,471)	1,600 (1,049)	4,415 (2,058)	1,210 (1,116)	0 (0)	0 (0)	8,722 (2,957)
Channel catfish	0.0007 (0.0014)	0 (0)	0 (0)	0 (0)	110 (223)	0 (0)	0 (0)	0 (0)	110 (223)
Rock bass	0.0008 (0.0017)	0 (0)	125 (259)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	125 (259)
Smallmouth bass	0.0017 (0.0020)	0 (0)	31 (65)	0 (0)	0 (0)	0 (0)	228 (294)	0 (0)	259 (301)
Yellow perch	0.6539 (0.3380)	70,548 (48,489)	3,736 (5,375)	2,768 (3,470)	15 (30)	0 (0)	15,052 (13,934)	10,063 (4,471)	102,182 (51,052)
Walleye	0.0026 (0.0053)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	409 (831)	409 (831)
Lake whitefish	0.0697 (0.0369)	0 (0)	131 (269)	6,537 (5,032)	3,554 (2,282)	577 (657)	87 (177)	0 (0)	10,886 (5,573)
Round whitefish	0.1023 (0.0973)	51 (104)	1,532 (2,222)	5,522 (4,981)	6,867 (13,942)	0 (0)	725 (1,481)	1,296 (775)	15,993 (15,064)
Burbot	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	18 (37)	0 (0)	0 (0)	0 (0)	18 (37)

Appendix 17. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.9272 (0.3648)	70,998 (48,492)	7,315 (6,035)	16,872 (7,966)	17,745 (14,357)	3,480 (2,178)	16,675 (14,023)	11,793 (4,613)	144,878 (53,667)
Angler hours		18,807 (4,272)	14,847 (5,142)	25,179 (8,123)	49,644 (14,651)	22,058 (7,288)	20,286 (7,056)	5,438 (1,058)	156,259 (20,721)
Angler trips		4,593 (1,083)	4,351 (1,599)	5,966 (1,964)	12,171 (3,596)	5,583 (1,888)	4,898 (1,693)	1,435 (319)	38,997 (5,201)
Angler days		4,003 (1,009)	3,607 (1,388)	5,906 (1,945)	11,538 (3,451)	5,096 (1,797)	4,354 (1,552)	1,283 (373)	35,787 (4,941)

Appendix 18. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for East Arm Grand Traverse Bay, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Chinook salmon	0.0254 (0.0118)	0 (0)	0 (0)	40 (81)	275 (295)	918 (601)	726 (575)	0 (0)	1,959 (886)
Rainbow trout	0.0010 (0.0018)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	27 (55)	51 (126)	78 (137)
Brown trout	0.0029 (0.0047)	173 (356)	0 (0)	0 (0)	0 (0)	14 (28)	36 (72)	0 (0)	223 (364)
Lake trout	0.0404 (0.0208)	0 (0)	326 (398)	1,284 (755)	1,348 (1,302)	155 (177)	0 (0)	0 (0)	3,113 (1,567)
Smallmouth bass	0.0089 (0.0113)	0 (0)	0 (0)	93 (189)	0 (0)	408 (824)	187 (213)	0 (0)	688 (872)
Yellow perch	0.8353 (0.2841)	9,957 (7,788)	6,158 (5,726)	5,124 (4,381)	3,811 (4,643)	1,572 (2,260)	19,978 (9,839)	17,775 (14,133)	64,375 (20,877)
Lake whitefish	0.0986 (0.0604)	0 (0)	1,118 (923)	2,432 (2,206)	3,113 (3,864)	692 (606)	96 (144)	145 (158)	7,596 (4,589)
Round whitefish	0.0079 (0.0118)	0 (0)	44 (88)	545 (899)	0 (0)	0 (0)	0 (0)	16 (33)	605 (904)
Total	1.0204 (0.2978)	10,130 (7,796)	7,646 (5,814)	9,518 (5,048)	8,547 (6,186)	3,759 (2,559)	21,050 (9,860)	17,987 (14,134)	78,637 (21,491)
Angler hours		11,403 (3,462)	5,591 (1,453)	9,502 (2,648)	17,453 (4,327)	10,675 (2,299)	14,359 (2,875)	8,082 (3,007)	77,065 (7,901)
Angler trips		2,906 (884)	1,154 (311)	2,358 (701)	4,014 (1,040)	3,008 (676)	2,878 (613)	2,054 (731)	18,372 (1,954)
Angler days		2,743 (870)	1,034 (304)	2,254 (690)	3,848 (1,045)	2,548 (632)	2,711 (596)	1,957 (723)	17,095 (1,922)

Appendix 19. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Elk Rapids, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0061 (0.0056)	0 (0)	0 (0)	0 (0)	0 (0)	56 (120)	67 (136)	187 (218)	310 (284)
Chinook salmon	0.0352 (0.0172)	0 (0)	0 (0)	0 (0)	823 (685)	267 (349)	101 (157)	608 (361)	1,799 (864)
Rainbow trout	0.0177 (0.0159)	766 (790)	78 (111)	0 (0)	59 (120)	0 (0)	0 (0)	0 (0)	903 (807)
Brown trout	0.0020 (0.0030)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	100 (150)	0 (0)	100 (150)
Lake trout	0.0121 (0.0059)	0 (0)	0 (0)	483 (171)	137 (241)	0 (0)	0 (0)	0 (0)	620 (296)
White sucker	0.0006 (0.0009)	0 (0)	32 (46)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	32 (46)
Smallmouth bass	0.0184 (0.0110)	0 (0)	776 (503)	95 (179)	68 (150)	0 (0)	0 (0)	0 (0)	939 (555)
Yellow perch	0.2931 (0.1158)	2,897 (3,751)	9,443 (3,526)	2,651 (2,549)	0 (0)	0 (0)	0 (0)	0 (0)	14,991 (5,745)
Lake whitefish	0.0299 (0.0349)	272 (304)	0 (0)	0 (0)	1,257 (1,755)	0 (0)	0 (0)	0 (0)	1,529 (1,781)
Round whitefish	0.0005 (0.0010)	0 (0)	25 (50)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	25 (50)
Total	0.4154 (0.1271)	3,935 (3,845)	10,354 (3,564)	3,229 (2,561)	2,344 (1,909)	323 (369)	268 (256)	795 (422)	21,248 (6,170)
Angler hours		12,206 (2,048)	7,250 (1,358)	7,271 (1,100)	7,767 (2,903)	4,973 (2,554)	5,175 (1,230)	6,512 (864)	51,154 (4,946)
Angler trips		3,207 (634)	2,074 (387)	2,011 (370)	2,514 (960)	1,132 (511)	1,190 (334)	1,953 (348)	14,081 (1,451)
Angler days		2,661 (609)	1,764 (365)	1,821 (379)	1,857 (684)	1,132 (511)	820 (303)	1,392 (308)	11,447 (1,250)

Appendix 20. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Charlevoix, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0017 (0.0023)	0 (0)	0 (0)	93 (173)	47 (97)	9 (18)	0 (0)	0 (0)	149 (199)
Chinook salmon	0.1037 (0.0295)	0 (0)	0 (0)	382 (429)	2,548 (1,191)	2,463 (1,575)	2,763 (1,029)	1,182 (511)	9,338 (2,324)
Rainbow trout	0.0119 (0.0111)	96 (78)	0 (0)	0 (0)	934 (984)	42 (87)	0 (0)	0 (0)	1,072 (991)
Brown trout	0.0006 (0.0012)	0 (0)	0 (0)	0 (0)	55 (111)	0 (0)	0 (0)	0 (0)	55 (111)
Lake trout	0.0240 (0.0142)	0 (0)	82 (75)	801 (749)	966 (961)	308 (241)	0 (0)	0 (0)	2,157 (1,244)
Rock bass	0.0029 (0.0059)	0 (0)	0 (0)	262 (535)	0 (0)	0 (0)	0 (0)	0 (0)	262 (535)
Largemouth bass	0.0008 (0.0016)	0 (0)	0 (0)	0 (0)	0 (0)	75 (153)	0 (0)	0 (0)	75 (153)
Round whitefish	0.0010 (0.0020)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	91 (182)	91 (182)
Total	0.1466 (0.0379)	96 (78)	82 (75)	1,538 (1,030)	4,550 (1,825)	2,897 (1,603)	2,763 (1,029)	1,273 (542)	13,199 (2,885)
Angler hours		220 (253)	2,058 (587)	13,147 (3,438)	33,187 (8,883)	18,470 (6,873)	18,337 (4,060)	4,624 (948)	90,043 (12,480)
Angler trips		75 (79)	395 (118)	2,678 (762)	6,541 (1,764)	3,776 (1,416)	4,046 (907)	1,766 (395)	19,277 (2,588)
Angler days		75 (79)	379 (118)	2,678 (762)	6,541 (1,764)	3,776 (1,416)	4,046 (907)	1,766 (395)	19,261 (2,588)

Appendix 21. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Petoskey, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Chinook salmon	0.0352 (0.0202)	0 (0)	0 (0)	17 (34)	180 (154)	489 (303)	746 (715)	8 (16)	1,440 (793)
Rainbow trout	0.0041 (0.0035)	0 (0)	0 (0)	0 (0)	0 (0)	10 (20)	8 (17)	148 (137)	166 (139)
Brown trout	0.0011 (0.0022)	0 (0)	0 (0)	0 (0)	46 (93)	0 (0)	0 (0)	0 (0)	46 (93)
Lake trout	0.0532 (0.0261)	0 (0)	360 (245)	347 (332)	1,016 (570)	451 (720)	0 (0)	0 (0)	2,174 (1,007)
Smallmouth bass	0.0055 (0.0102)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	225 (416)	0 (0)	225 (416)
Yellow perch	0.0801 (0.1111)	0 (0)	0 (0)	336 (485)	395 (172)	317 (355)	0 (0)	2,228 (4,467)	3,276 (4,511)
Round whitefish	0.0121 (0.0244)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	495 (993)	495 (993)
Total	0.1913 (0.1218)	0 (0)	360 (245)	700 (589)	1,637 (622)	1,267 (858)	979 (827)	2,879 (4,578)	7,822 (4,814)
Angler hours		0 (0)	1,566 (855)	4,052 (1,445)	10,392 (3,394)	13,383 (5,133)	8,315 (1,793)	3,173 (414)	40,881 (6,639)
Angler trips		0 (0)	385 (214)	836 (300)	2,451 (758)	2,752 (978)	2,161 (532)	834 (264)	9,419 (1,421)
Angler days		0 (0)	385 (214)	836 (300)	2,451 (758)	2,752 (978)	2,161 (532)	834 (264)	9,419 (1,421)

Appendix 22. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Harbor Springs, by all modes of sportfishing, 1987.
Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Chinook salmon	0.0114 (0.0118)	0 (0)	0 (0)	0 (0)	265 (384)	98 (200)	45 (68)	27 (50)	435 (441)
Rainbow trout	0.0019 (0.0027)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	73 (104)	73 (104)
Brown trout	0.0036 (0.0055)	0 (0)	0 (0)	0 (0)	32 (66)	93 (193)	11 (27)	0 (0)	136 (206)
Lake trout	0.0130 (0.0113)	0 (0)	0 (0)	63 (60)	385 (400)	50 (103)	0 (0)	0 (0)	498 (417)
Rainbow smelt	0.0004 (0.0009)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	17 (37)	17 (37)
Smallmouth bass	0.0138 (0.0145)	0 (0)	0 (0)	0 (0)	107 (221)	0 (0)	422 (497)	0 (0)	529 (544)
Largemouth bass	0.0011 (0.0023)	0 (0)	0 (0)	0 (0)	0 (0)	44 (91)	0 (0)	0 (0)	44 (91)
Yellow perch	0.6898 (0.4531)	0 (0)	2,599 (1,931)	845 (1,817)	0 (0)	1,114 (2,311)	1,921 (1,714)	19,922 (15,820)	26,401 (16,297)
Round whitefish	0.0003 (0.0006)	0 (0)	12 (24)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	12 (24)
Total	0.7353 (0.4572)	0 (0)	2,611 (1,931)	908 (1,818)	789 (601)	1,399 (2,332)	2,399 (1,786)	20,039 (15,820)	28,145 (16,319)
Angler hours		0 (0)	1,859 (794)	592 (360)	11,533 (5,176)	10,599 (4,605)	7,317 (2,446)	6,376 (4,369)	38,276 (8,592)
Angler trips		0 (0)	515 (242)	123 (77)	2,913 (1,389)	2,643 (1,157)	1,928 (692)	1,591 (1,013)	9,713 (2,199)
Angler days		0 (0)	515 (242)	123 (77)	2,913 (1,389)	2,643 (1,157)	1,928 (692)	1,591 (1,013)	9,713 (2,199)

Appendix 23. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Manistique-Thompson, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0502 (0.0318)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2,267 (1,417)	0 (0)	2,267 (1,417)
Coho salmon	0.0093 (0.0052)	0 (0)	0 (0)	0 (0)	31 (48)	0 (0)	264 (189)	123 (121)	418 (229)
Chinook salmon	0.0712 (0.0323)	0 (0)	0 (0)	0 (0)	552 (296)	164 (79)	1,385 (1,112)	1,113 (830)	3,214 (1,421)
Rainbow trout	0.0137 (0.0092)	202 (255)	11 (22)	0 (0)	8 (15)	0 (0)	269 (234)	128 (217)	618 (409)
Brown trout	0.0024 (0.0026)	0 (0)	0 (0)	0 (0)	15 (31)	41 (83)	53 (76)	0 (0)	109 (117)
Northern pike	0.0029 (0.0030)	0 (0)	0 (0)	0 (0)	84 (122)	49 (62)	0 (0)	0 (0)	133 (137)
Smallmouth bass	0.0047 (0.0056)	0 (0)	0 (0)	0 (0)	211 (251)	0 (0)	0 (0)	0 (0)	211 (251)
Walleye	0.0048 (0.0052)	0 (0)	0 (0)	0 (0)	194 (227)	0 (0)	0 (0)	22 (45)	216 (231)
Total	0.1592 (0.0491)	202 (255)	11 (22)	0 (0)	1,095 (470)	254 (130)	4,238 (1,828)	1,386 (868)	7,186 (2,097)
Angler hours		4,444 (1,333)	1,144 (414)	0 (0)	13,151 (2,156)	3,378 (835)	18,516 (3,319)	4,506 (1,272)	45,139 (4,464)
Angler trips		798 (355)	214 (107)	0 (0)	3,180 (572)	1,112 (260)	4,759 (870)	1,125 (339)	11,188 (1,185)
Angler days		750 (355)	214 (107)	0 (0)	3,180 (572)	1,112 (260)	4,759 (870)	1,125 (339)	11,140 (1,185)

Appendix 24. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Big Bay de Noc, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Northern pike	0.0249 (0.0203)	0 (0)	419 (622)	76 (113)	238 (243)	744 (941)	0 (0)	0 (0)	1,477 (1,159)
Black bullhead	0.0018 (0.0037)	0 (0)	0 (0)	0 (0)	0 (0)	106 (219)	0 (0)	0 (0)	106 (219)
Rock bass	0.0082 (0.0116)	0 (0)	0 (0)	0 (0)	0 (0)	485 (675)	0 (0)	0 (0)	485 (675)
Pumpkinseed	0.0628 (0.1349)	0 (0)	0 (0)	0 (0)	186 (271)	3,543 (7,958)	0 (0)	0 (0)	3,729 (7,963)
Smallmouth bass	0.0813 (0.0710)	0 (0)	0 (0)	114 (179)	2,528 (3,662)	2,187 (1,778)	0 (0)	0 (0)	4,829 (4,075)
Yellow perch	1.9677 (0.8242)	102,665 (38,329)	2,628 (2,473)	114 (244)	395 (538)	9,690 (14,979)	0 (0)	1,355 (991)	116,847 (41,242)
Total	2.1472 (0.8602)	132,665 (38,329)	3,047 (2,550)	304 (323)	3,347 (3,535)	16,755 (17,095)	0 (0)	1,355 (991)	127,505 (42,207)
Angler hours		28,677 (10,786)	2,676 (882)	4,375 (2,437)	8,533 (3,824)	14,580 (6,451)	0 (0)	542 (177)	59,383 (13,391)
Angler trips		5,344 (1,944)	517 (175)	1,610 (993)	2,433 (829)	4,280 (1,608)	0 (0)	245 (91)	14,429 (2,842)
Angler days		5,344 (1,944)	517 (175)	1,301 (918)	2,433 (829)	4,280 (1,608)	0 (0)	245 (91)	14,120 (2,817)

Appendix 25. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Little Bay de Noc, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0006 (0.0009)	0 (0)	0 (0)	0 (0)	0 (0)	49 (98)	23 (47)	0 (0)	72 (109)
Chinook salmon	0.0012 (0.0012)	0 (0)	0 (0)	0 (0)	0 (0)	55 (89)	98 (117)	0 (0)	153 (147)
Brown trout	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	28 (56)	28 (56)
Northern pike	0.0225 (0.0128)	0 (0)	0 (0)	21 (45)	715 (668)	1,265 (1,279)	390 (316)	420 (501)	2,811 (1,560)
Black bullhead	0.0003 (0.0006)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	43 (86)	0 (0)	43 (86)
Brown bullhead	0.0011 (0.0022)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	133 (268)	0 (0)	133 (268)
Channel catfish	0.0015 (0.0030)	0 (0)	0 (0)	0 (0)	184 (371)	0 (0)	0 (0)	0 (0)	184 (371)
White bass	0.0005 (0.0007)	0 (0)	0 (0)	60 (81)	0 (0)	0 (0)	0 (0)	0 (0)	60 (81)
Rock bass	0.0200 (0.0131)	0 (0)	0 (0)	112 (173)	404 (659)	1,290 (1,239)	525 (691)	158 (319)	2,489 (1,606)
Pumpkinseed	0.0223 (0.0235)	0 (0)	0 (0)	0 (0)	221 (327)	1,832 (2,787)	493 (598)	236 (478)	2,782 (2,909)
Bluegill	0.0002 (0.0004)	0 (0)	0 (0)	31 (65)	0 (0)	0 (0)	0 (0)	0 (0)	31 (65)
Smallmouth bass	0.0067 (0.0058)	0 (0)	0 (0)	38 (79)	78 (157)	158 (269)	466 (603)	99 (209)	839 (715)
White crappie	0.0039 (0.0063)	0 (0)	0 (0)	488 (785)	0 (0)	0 (0)	0 (0)	0 (0)	488 (785)
Black crappie	0.0026 (0.0033)	0 (0)	0 (0)	247 (376)	80 (162)	0 (0)	0 (0)	0 (0)	327 (409)
Yellow perch	0.4631 (0.1413)	13,057 (5,861)	4,415 (3,301)	3,370 (1,687)	6,393 (5,453)	7,896 (7,483)	15,560 (9,766)	7,064 (5,361)	57,750 (16,060)
Walleye	0.0894 (0.0325)	0 (0)	836 (906)	523 (324)	2,886 (2,395)	6,285 (2,760)	321 (292)	298 (325)	11,149 (3,804)

Appendix 25. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Other	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	10 (20)	0 (0)	10 (20)
Total	0.6363 (0.1577)	13,057 (5,861)	5,251 (3,423)	4,890 (1,938)	10,961 (6,054)	18,830 (8,640)	18,062 (9,841)	8,303 (5,429)	79,354 (16,954)
Angler hours		4,500 (1,553)	11,517 (4,723)	12,468 (4,842)	32,623 (6,887)	33,357 (9,837)	22,082 (6,692)	8,158 (2,861)	124,705 (15,663)
Angler trips		879 (325)	1,786 (747)	2,496 (973)	8,877 (2,317)	7,331 (2,336)	6,174 (1,912)	2,486 (830)	30,029 (4,096)
Angler days		879 (325)	1,786 (747)	2,496 (973)	8,877 (2,317)	7,331 (2,336)	6,174 (1,912)	2,486 (830)	30,029 (4,096)

Appendix 26. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Ford River, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		Apr	May	Jun	Jul	Aug	Sep	
Chinook salmon	0.0629 (0.0261)	0 (0)	0 (0)	0 (0)	1,476 (667)	392 (273)	0 (0)	1,868 (721)
Rainbow trout	0.0006 (0.0012)	0 (0)	0 (0)	0 (0)	0 (0)	19 (39)	0 (0)	19 (39)
Brown trout	0.0005 (0.0010)	0 (0)	0 (0)	0 (0)	0 (0)	15 (29)	0 (0)	15 (29)
Northern pike	0.0027 (0.0039)	0 (0)	0 (0)	0 (0)	0 (0)	81 (115)	0 (0)	81 (115)
White sucker	0.0010 (0.0021)	0 (0)	0 (0)	29 (62)	0 (0)	0 (0)	0 (0)	29 (62)
Rock bass	0.0030 (0.0063)	0 (0)	0 (0)	88 (185)	0 (0)	0 (0)	0 (0)	88 (185)
Pumpkinseed	0.0010 (0.0021)	0 (0)	0 (0)	29 (62)	0 (0)	0 (0)	0 (0)	29 (62)
Bluegill	0.0030 (0.0063)	0 (0)	0 (0)	88 (185)	0 (0)	0 (0)	0 (0)	88 (185)
Smallmouth bass	0.0258 (0.0186)	0 (0)	0 (0)	591 (533)	0 (0)	35 (71)	140 (49)	766 (540)
Yellow perch	0.0575 (0.1131)	0 (0)	0 (0)	0 (0)	1,663 (3,352)	47 (94)	0 (0)	1,710 (3,353)
Total	0.1579 (0.1197)	0 (0)	0 (0)	825 (600)	3,139 (3,418)	589 (322)	140 (49)	4,693 (3,486)
Angler hours		2,370 (511)	1,357 (637)	4,427 (1,576)	12,811 (2,974)	8,335 (2,876)	416 (324)	29,716 (4,514)
Angler trips		1,562 (200)	199 (98)	1,147 (449)	3,253 (956)	2,189 (931)	259 (317)	8,609 (1,460)
Angler days		1,562 (200)	199 (98)	1,147 (449)	3,253 (956)	2,189 (931)	259 (317)	8,609 (1,460)

Appendix 27. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Cedar River to Stoney Point, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month					Season total
		Apr	May	Jun	Jul	Aug	
Chinook salmon	0.0365 (0.0174)	0 (0)	0 (0)	319 (293)	1,454 (829)	145 (112)	1,918 (886)
Rainbow trout	0.0013 (0.0020)	0 (0)	40 (101)	4 (8)	26 (39)	0 (0)	70 (109)
Brown trout	0.0265 (0.0122)	1,039 (586)	0 (0)	71 (87)	243 (178)	43 (53)	1,396 (621)
Lake trout	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	6 (13)	6 (13)
Splake	0.0006 (0.0010)	29 (46)	0 (0)	0 (0)	0 (0)	0 (0)	29 (46)
Northern pike	0.0036 (0.0034)	0 (0)	72 (115)	69 (94)	49 (99)	0 (0)	190 (178)
Channel catfish	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	8 (16)	8 (16)
White perch	0.0094 (0.0190)	0 (0)	0 (0)	0 (0)	492 (991)	0 (0)	492 (991)
White bass	0.0002 (0.0004)	0 (0)	0 (0)	9 (18)	0 (0)	0 (0)	9 (18)
Rock bass	0.0129 (0.0205)	0 (0)	559 (1,064)	58 (88)	63 (127)	0 (0)	680 (1,075)
Smallmouth bass	0.0291 (0.0219)	0 (0)	473 (812)	882 (782)	125 (134)	53 (70)	1,533 (1,137)
Largemouth bass	<0.0001 (<0.0001)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	2 (4)
Yellow perch	0.4605 (0.1954)	0 (0)	669 (999)	3,934 (2,472)	19,622 (9,475)	5 (9)	24,230 (9,843)
Other	0.0003 (0.0006)	0 (0)	0 (0)	17 (35)	0 (0)	0 (0)	17 (35)

Appendix 27. Continued:

Species	Total catch per hour	Month					Season total
		Apr	May	Jun	Jul	Aug	
Total	0.5812 (0.2043)	1,068 (588)	1,813 (1,677)	5,365 (2,614)	22,074 (9,567)	260 (144)	30,580 (10,077)
Angler hours		6,823 (2,400)	4,493 (1,911)	12,472 (3,240)	22,849 (4,145)	5,979 (2,109)	52,616 (6,445)
Angler trips		1,334 (490)	1,687 (735)	3,373 (1,037)	5,515 (1,081)	1,501 (507)	13,410 (1,811)
Angler days		1,334 (490)	1,687 (735)	3,203 (934)	5,462 (1,074)	1,484 (505)	13,170 (1,750)

Appendix 28. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Menominee, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month					Season total
		Apr	May	Jun	Jul	Aug	
Coho salmon	0.0002 (0.0004)	6 (12)	0 (0)	0 (0)	0 (0)	0 (0)	6 (12)
Chinook salmon	0.0191 (0.0076)	0 (0)	0 (0)	138 (116)	346 (191)	217 (146)	701 (267)
Rainbow trout	0.0028 (0.0024)	0 (0)	58 (74)	0 (0)	36 (49)	10 (6)	104 (89)
Brown trout	0.0596 (0.0268)	131 (134)	644 (540)	584 (636)	740 (424)	86 (41)	2,185 (946)
Brook trout	0.0001 (0.0002)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	4 (8)
Splake	0.0008 (0.0012)	28 (43)	0 (0)	0 (0)	0 (0)	1 (1)	29 (43)
Channel catfish	0.0001 (0.0002)	0 (0)	2 (6)	0 (0)	3 (6)	0 (0)	5 (8)
White bass	0.0003 (0.0007)	0 (0)	12 (29)	0 (0)	0 (0)	0 (0)	12 (29)
Rock bass	0.0038 (0.0037)	37 (83)	35 (53)	0 (0)	69 (96)	0 (0)	141 (138)
Smallmouth bass	0.0132 (0.0108)	0 (0)	19 (43)	197 (322)	142 (115)	127 (186)	485 (392)
Black crappie	0.0025 (0.0052)	0 (0)	0 (0)	0 (0)	93 (194)	0 (0)	93 (194)
Yellow perch	0.2818 (0.1293)	833 (1,143)	1,485 (982)	4,904 (3,773)	3,108 (2,104)	0 (0)	10,330 (4,575)
Walleye	0.0234 (0.0136)	0 (0)	707 (445)	90 (182)	59 (71)	0 (0)	856 (486)
Round whitefish	<0.0001 (<0.0001)	0 (0)	1 (3)	0 (0)	0 (0)	0 (0)	1 (3)
Burbot	0.0003 (0.0006)	0 (0)	0 (0)	11 (22)	0 (0)	0 (0)	11 (22)
Other	0.0019 (0.0038)	0 (0)	2 (5)	0 (0)	67 (136)	0 (0)	69 (136)

Appendix 28. Continued:

Species	Total catch per hour	Month					Season total
		Apr	May	Jun	Jul	Aug	
Total	0.4101 (0.1381)	1,035 (1,155)	2,969 (1,210)	5,924 (3,846)	4,663 (2,175)	441 (240)	15,032 (4,731)
Angler hours		2,154 (1,249)	5,035 (1,329)	12,244 (3,026)	11,565 (2,369)	5,659 (1,132)	36,657 (4,402)
Angler trips		697 (474)	1,639 (443)	4,614 (1,290)	4,444 (1,155)	2,770 (674)	14,164 (1,968)
Angler days		697 (474)	1,639 (443)	4,293 (1,224)	3,951 (1,076)	2,640 (663)	13,220 (1,875)

SECTION II.

Lake Huron Catch and Effort Estimates by Site

Appendix 29. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Port Huron, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0013 (0.0023)	4 (9)	0 (0)	214 (382)	0 (0)	0 (0)	0 (0)	0 (0)	218 (382)
Coho salmon	0.0015 (0.0013)	131 (117)	117 (166)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	248 (203)
Chinook salmon	0.0056 (0.0060)	88 (62)	9 (18)	29 (59)	0 (0)	0 (0)	800 (975)	0 (0)	926 (979)
Rainbow trout	0.0006 (0.0006)	72 (82)	0 (0)	23 (47)	0 (0)	0 (0)	0 (0)	0 (0)	95 (95)
Brown trout	0.0001 (0.0001)	12 (21)	0 (0)	9 (18)	0 (0)	0 (0)	0 (0)	0 (0)	21 (28)
Rainbow smelt	0.2810 (0.2828)	46,371 (46,034)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	46,371 (46,034)
White sucker	0.0001 (0.0002)	4 (10)	10 (21)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	14 (23)
Redhorse (spp)	0.0031 (0.0036)	0 (0)	321 (455)	0 (0)	0 (0)	0 (0)	185 (370)	0 (0)	506 (586)
White bass	<0.0001 (<0.0001)	3 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)
White crappie	0.0002 (0.0004)	25 (51)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	25 (51)
Yellow perch	0.0094 (0.0059)	797 (752)	67 (90)	242 (310)	331 (427)	75 (153)	32 (66)	0 (0)	1,544 (938)
Walleye	0.3787 (0.1545)	86 (156)	956 (1,319)	5,753 (2,690)	40,447 (22,395)	5,701 (1,958)	9,402 (5,453)	152 (188)	62,497 (23,327)
Freshwater drum	0.0016 (0.0024)	0 (0)	42 (88)	25 (51)	0 (0)	8 (17)	185 (370)	0 (0)	260 (384)

Appendix 29. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.6831 (0.3324)	47,593 (46,041)	1,522 (1,411)	6,295 (2,736)	40,778 (22,399)	5,784 (1,964)	10,604 (5,565)	152 (188)	112,728 (51,632)
Angler hours		13,141 (3,109)	11,370 (4,347)	33,400 (6,291)	61,290 (25,046)	22,203 (3,991)	22,194 (5,015)	1,432 (710)	165,030 (27,148)
Angler trips		3,524 (1,061)	2,411 (1,021)	6,968 (2,456)	12,523 (5,537)	4,350 (861)	4,696 (1,340)	283 (144)	34,755 (6,436)
Angler days		3,259 (983)	2,374 (1,012)	6,831 (2,450)	12,273 (5,538)	4,030 (846)	4,396 (1,269)	283 (144)	33,446 (6,404)

Appendix 30. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Lexington to Port Sanilac, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0056 (0.0026)	0 (0)	1,072 (659)	487 (347)	193 (179)	0 (0)	5 (10)	0 (0)	1,757 (766)
Coho salmon	0.0060 (0.0033)	672 (857)	162 (104)	516 (344)	520 (350)	4 (8)	0 (0)	0 (0)	1,874 (993)
Chinook salmon	0.0222 (0.0064)	1,094 (862)	2,086 (1,002)	550 (373)	1,559 (626)	705 (368)	781 (424)	176 (129)	6,951 (1,616)
Rainbow trout	0.0025 (0.0019)	435 (554)	138 (106)	9 (18)	90 (137)	77 (83)	13 (27)	29 (42)	791 (589)
Brown trout	0.0010 (0.0007)	117 (156)	24 (27)	24 (38)	117 (112)	0 (0)	36 (75)	10 (21)	328 (212)
Lake trout	0.0021 (0.0015)	0 (0)	229 (292)	78 (79)	346 (319)	0 (0)	0 (0)	0 (0)	653 (440)
Northern pike	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	24 (53)	0 (0)	0 (0)	24 (53)
Channel catfish	0.0016 (0.0016)	0 (0)	8 (16)	336 (434)	62 (104)	96 (198)	4 (8)	0 (0)	506 (489)
White perch	0.0008 (0.0009)	0 (0)	0 (0)	156 (240)	80 (124)	5 (11)	0 (0)	0 (0)	241 (270)
White bass	<0.0001 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (11)	0 (0)	0 (0)	5 (11)
Rock bass	0.0032 (0.0067)	0 (0)	939 (2,087)	0 (0)	56 (126)	0 (0)	0 (0)	0 (0)	995 (2,091)
Smallmouth bass	0.0001 (0.0001)	0 (0)	0 (0)	11 (23)	0 (0)	0 (0)	10 (20)	0 (0)	21 (30)
Yellow perch	0.1231 (0.0383)	44 (97)	756 (822)	10,717 (4,623)	24,867 (8,773)	1,618 (1,651)	535 (619)	0 (0)	38,537 (10,106)
Walleye	0.0024 (0.0014)	24 (43)	0 (0)	0 (0)	182 (184)	344 (265)	136 (215)	58 (118)	744 (408)
Freshwater drum	0.0003 (0.0004)	0 (0)	11 (23)	80 (121)	0 (0)	0 (0)	0 (0)	0 (0)	91 (123)

Appendix 30. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.1709 (0.0442)	2,386 (1,349)	5,425 (2,565)	12,964 (4,692)	28,072 (8,816)	2,878 (1,726)	1,520 (785)	273 (181)	53,518 (10,572)
Angler hours		70,014 (43,231)	53,344 (19,054)	46,384 (12,063)	66,637 (12,576)	28,312 (7,636)	37,217 (11,609)	11,159 (4,164)	313,067 (52,403)
Angler trips		16,654 (8,647)	11,285 (3,893)	11,854 (3,154)	15,984 (3,682)	6,691 (1,887)	9,297 (3,006)	3,072 (1,182)	74,837 (11,288)
Angler days		15,851 (8,245)	10,533 (3,658)	10,301 (2,773)	15,329 (3,560)	6,373 (1,792)	8,034 (2,596)	2,812 (1,096)	69,233 (10,624)

Appendix 31. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Eagle Bay to Harbor Beach, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0080 (0.0039)	0 (0)	840 (616)	1,595 (1,193)	503 (387)	43 (75)	0 (0)	0 (0)	2,981 (1,399)
Coho salmon	0.0014 (0.0010)	290 (330)	120 (134)	18 (36)	67 (111)	0 (0)	25 (52)	0 (0)	520 (378)
Chinook salmon	0.0408 (0.0115)	704 (627)	2,096 (1,141)	536 (533)	6,441 (2,812)	1,754 (928)	2,676 (1,192)	1,050 (1,152)	15,257 (3,674)
Rainbow trout	0.0019 (0.0012)	24 (38)	145 (183)	69 (108)	200 (205)	117 (116)	8 (17)	149 (278)	712 (424)
Brown trout	0.0019 (0.0011)	40 (69)	41 (85)	113 (142)	372 (337)	45 (71)	16 (32)	77 (71)	704 (396)
Lake trout	0.0444 (0.0150)	0 (0)	2,133 (1,388)	7,153 (3,489)	6,160 (3,201)	1,167 (977)	0 (0)	0 (0)	16,613 (5,030)
Channel catfish	0.0057 (0.0094)	0 (0)	0 (0)	23 (48)	2,023 (3,482)	69 (108)	0 (0)	0 (0)	2,115 (3,484)
Smallmouth bass	0.0019 (0.0013)	0 (0)	655 (444)	61 (124)	0 (0)	0 (0)	0 (0)	0 (0)	716 (461)
Yellow perch	0.3922 (0.1295)	17,057 (13,906)	7,093 (4,934)	36,067 (22,262)	42,410 (25,967)	13,822 (10,887)	30,327 (19,215)	0 (0)	146,776 (43,305)
Walleye	0.0061 (0.0038)	0 (0)	0 (0)	0 (0)	382 (503)	1,744 (1,247)	143 (163)	0 (0)	2,269 (1,354)
Freshwater drum	0.0055 (0.0093)	0 (0)	0 (0)	0 (0)	1,996 (3,466)	29 (62)	23 (48)	0 (0)	2,048 (3,467)
Other	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	39 (80)	0 (0)	0 (0)	39 (80)

Appendix 31. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.5097 (0.1399)	18,115 (13,924)	13,123 (5,311)	45,635 (22,573)	60,554 (26,780)	18,829 (11,043)	33,218 (19,253)	1,276 (1,187)	190,750 (44,078)
Angler hours		43,174 (25,409)	58,091 (22,333)	74,943 (24,728)	83,668 (24,416)	53,363 (21,416)	51,991 (16,132)	9,037 (2,533)	374,267 (55,473)
Angler trips		10,187 (5,313)	12,477 (4,377)	16,010 (5,127)	20,882 (5,429)	11,331 (4,204)	9,902 (2,989)	2,984 (1,009)	83,773 (11,436)
Angler days		9,725 (5,167)	10,771 (4,088)	14,551 (4,685)	18,252 (4,886)	10,063 (3,806)	9,117 (2,787)	2,538 (939)	75,017 (10,600)

Appendix 32. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Port Austin to Sand Point, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0035 (0.0023)	0 (0)	446 (368)	780 (716)	0 (0)	68 (111)	0 (0)	0 (0)	1,294 (813)
Coho salmon	0.0002 (0.0003)	0 (0)	67 (91)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	67 (91)
Chinook salmon	0.0183 (0.0064)	119 (170)	779 (394)	63 (93)	1,833 (1,242)	886 (620)	1,785 (1,253)	1,255 (969)	6,720 (2,151)
Rainbow trout	0.0011 (0.0008)	0 (0)	11 (16)	25 (52)	191 (228)	138 (154)	34 (59)	0 (0)	399 (287)
Brown trout	0.0011 (0.0014)	24 (50)	0 (0)	0 (0)	74 (150)	41 (60)	248 (488)	20 (33)	407 (518)
Lake trout	0.0244 (0.0082)	0 (0)	2,067 (879)	2,623 (1,652)	3,425 (1,916)	853 (617)	0 (0)	0 (0)	8,968 (2,748)
Northern pike	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	23 (47)	0 (0)	16 (35)	0 (0)	39 (59)
Channel catfish	0.0035 (0.0072)	0 (0)	0 (0)	1,255 (2,621)	0 (0)	9 (19)	8 (16)	0 (0)	1,272 (2,621)
White perch	0.0016 (0.0025)	170 (352)	0 (0)	0 (0)	402 (813)	0 (0)	0 (0)	0 (0)	572 (886)
Rock bass	0.0006 (0.0013)	0 (0)	0 (0)	0 (0)	0 (0)	203 (427)	0 (0)	0 (0)	203 (427)
Smallmouth bass	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	23 (47)	0 (0)	0 (0)	0 (0)	23 (47)
Yellow perch	0.7435 (0.2479)	131,556 (63,492)	8,609 (4,962)	41,025 (31,221)	15,719 (8,617)	18,365 (11,255)	57,029 (39,344)	685 (742)	272,988 (82,341)
Walleye	0.0266 (0.0113)	0 (0)	0 (0)	1,249 (1,390)	6,671 (3,289)	1,709 (1,558)	139 (168)	0 (0)	9,768 (3,899)
Freshwater drum	0.0001 (0.0002)	0 (0)	0 (0)	52 (106)	0 (0)	0 (0)	0 (0)	0 (0)	52 (106)

Appendix 32. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.8246 (0.2536)	131,869 (63,493)	11,979 (5,069)	47,072 (31,414)	28,361 (9,541)	22,272 (11,406)	59,259 (39,367)	1,960 (1,221)	302,772 (82,561)
Angler hours		92,262 (33,902)	35,316 (8,987)	58,210 (19,702)	90,039 (19,741)	42,253 (15,960)	41,617 (21,460)	7,461 (1,747)	367,158 (52,214)
Angler trips		25,068 (8,965)	8,828 (2,225)	13,040 (4,665)	18,607 (4,122)	9,965 (3,376)	9,373 (4,685)	2,524 (877)	87,405 (12,577)
Angler days		22,705 (8,218)	7,934 (2,069)	12,553 (4,553)	17,256 (3,931)	9,908 (3,341)	8,378 (4,274)	1,876 (692)	80,610 (11,743)

Appendix 33. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Sand Point to Sebewaing, by all modes of fishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Rainbow trout	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	12 (25)	12 (25)
Black bullhead	0.0009 (0.0019)	0 (0)	203 (426)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	203 (426)
Yellow bullhead	0.0092 (0.0180)	149 (323)	1,827 (3,831)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1,976 (3,845)
Brown bullhead	0.0057 (0.0048)	13 (27)	518 (539)	575 (831)	83 (122)	0 (0)	0 (0)	25 (52)	1,214 (1,000)
Channel catfish	0.0233 (0.0138)	239 (518)	1,893 (1,907)	2,234 (1,977)	539 (518)	82 (167)	8 (16)	0 (0)	4,995 (2,848)
White bass	0.0015 (0.0027)	0 (0)	282 (582)	6 (12)	43 (89)	0 (0)	0 (0)	0 (0)	331 (589)
Rock bass	0.0002 (0.0002)	0 (0)	0 (0)	13 (25)	13 (28)	0 (0)	20 (40)	0 (0)	46 (55)
Pumpkinseed	0.0110 (0.0081)	0 (0)	0 (0)	564 (1,164)	83 (122)	593 (739)	1,116 (990)	0 (0)	2,356 (1,702)
Bluegill	0.0036 (0.0048)	0 (0)	0 (0)	340 (522)	435 (888)	0 (0)	0 (0)	0 (0)	775 (1,030)
Redear sunfish	0.0035 (0.0047)	0 (0)	760 (1,017)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	760 (1,017)
Largemouth bass	0.0061 (0.0077)	0 (0)	753 (1,460)	468 (728)	67 (114)	19 (39)	0 (0)	0 (0)	1,307 (1,636)
White crappie	0.0120 (0.0170)	204 (443)	347 (419)	0 (0)	268 (551)	0 (0)	0 (0)	1,761 (3,534)	2,580 (3,628)
Yellow perch	1.0890 (0.4606)	203,406 (90,103)	7,308 (6,285)	2,673 (4,432)	2,201 (3,999)	9,169 (11,734)	4,975 (5,130)	3,664 (2,412)	233,396 (91,452)
Walleye	0.0405 (0.0235)	0 (0)	624 (829)	1,388 (1,608)	6,661 (4,497)	0 (0)	0 (0)	0 (0)	8,673 (4,847)
Freshwater drum	0.0056 (0.0047)	0 (0)	562 (664)	491 (701)	154 (210)	0 (0)	0 (0)	0 (0)	1,207 (988)
Other	0.0229 (0.0449)	16 (34)	4,871 (9,606)	6 (12)	0 (0)	19 (39)	0 (0)	0 (0)	4,912 (9,606)

Appendix 33. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	1.2352 (0.4736)	204,027 (90,106)	19,948 (12,465)	8,758 (5,429)	10,547 (6,138)	9,882 (11,759)	6,119 (5,225)	5,462 (4,279)	264,743 (92,334)
Angler hours		36,741 (14,988)	38,062 (12,562)	60,190 (20,085)	39,989 (15,232)	16,008 (5,238)	15,636 (10,078)	7,702 (4,172)	214,328 (34,121)
Angler trips		15,563 (7,395)	9,434 (2,396)	16,941 (5,637)	8,674 (3,120)	6,656 (2,003)	4,711 (2,787)	3,020 (1,524)	64,999 (10,772)
Angler days		11,095 (5,094)	7,654 (2,201)	14,938 (5,202)	8,179 (3,032)	5,062 (1,617)	3,377 (2,064)	2,582 (1,436)	52,887 (8,717)

Appendix 34. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Sebawaing to Essexville, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Northern pike	0.0001 (0.0002)	0 (0)	9 (19)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	9 (19)
White sucker	0.0365 (0.0425)	6,246 (7,159)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6,246 (7,159)
Yellow bullhead	0.0039 (0.0041)	445 (637)	101 (107)	0 (0)	0 (0)	0 (0)	124 (256)	0 (0)	670 (695)
Brown bullhead	0.0301 (0.0148)	1,331 (1,542)	878 (583)	1,584 (1,179)	356 (630)	175 (333)	782 (816)	40 (81)	5,146 (2,300)
Channel catfish	0.1038 (0.0560)	320 (442)	1,879 (1,286)	6,478 (5,474)	7,139 (6,532)	489 (729)	1,445 (1,927)	0 (0)	17,750 (8,873)
White bass	0.0666 (0.0387)	2,933 (3,696)	4,745 (3,873)	1,708 (1,652)	1,311 (2,383)	685 (1,153)	0 (0)	0 (0)	11,382 (6,197)
Rock bass	0.0003 (0.0005)	0 (0)	47 (76)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	47 (76)
Pumpkinseed	0.0095 (0.0100)	0 (0)	61 (89)	348 (612)	0 (0)	404 (816)	803 (1,345)	13 (27)	1,629 (1,691)
Bluegill	0.0003 (0.0006)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	54 (108)	54 (108)
Longear sunfish	0.0003 (0.0004)	0 (0)	57 (83)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	57 (83)
Redear sunfish	0.0062 (0.0066)	1,006 (1,108)	47 (71)	6 (13)	0 (0)	0 (0)	0 (0)	0 (0)	1,059 (1,110)
Smallmouth bass	0.0001 (0.0002)	0 (0)	18 (37)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	18 (37)
Largemouth bass	0.0077 (0.0075)	0 (0)	278 (323)	0 (0)	950 (1,199)	86 (181)	0 (0)	0 (0)	1,314 (1,255)
White crappie	0.0130 (0.0084)	36 (77)	34 (68)	0 (0)	106 (211)	47 (114)	291 (411)	1,704 (1,273)	2,218 (1,363)
Black crappie	0.0004 (0.0007)	0 (0)	70 (119)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	70 (119)
Yellow perch	0.7171 (0.2644)	69,518 (33,420)	1,423 (2,330)	229 (272)	2,352 (2,394)	5,783 (6,728)	22,406 (14,361)	20,918 (6,760)	122,629 (37,754)

Appendix 34. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Walleye	0.1256 (0.0578)	214 (440)	1,881 (1,589)	4,349 (4,651)	12,163 (7,958)	2,877 (2,117)	0 (0)	0 (0)	21,484 (8,868)
Freshwater drum	0.0080 (0.0067)	0 (0)	48 (67)	692 (972)	500 (525)	29 (62)	96 (137)	0 (0)	1,365 (1,117)
Other	0.0034 (0.0029)	361 (372)	18 (37)	199 (305)	0 (0)	11 (24)	0 (0)	0 (0)	589 (483)
Total	1.1329 (0.3324)	82,410 (34,443)	11,594 (5,012)	15,593 (7,563)	24,877 (10,298)	10,586 (7,241)	25,947 (14,584)	22,729 (6,880)	193,736 (41,075)
Angler hours		41,108 (17,771)	18,203 (4,727)	19,776 (6,843)	54,149 (26,620)	19,631 (9,717)	13,108 (3,552)	5,031 (1,336)	171,006 (34,676)
Angler trips		16,831 (8,443)	6,133 (1,470)	4,192 (1,383)	11,148 (5,208)	4,666 (2,542)	4,052 (920)	2,700 (981)	49,722 (10,524)
Angler days		11,267 (5,374)	5,009 (1,283)	3,665 (1,278)	10,601 (5,125)	4,337 (2,361)	3,217 (831)	2,029 (666)	40,125 (8,071)

Appendix 35. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Saginaw River to Essexville, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Rainbow trout	0.0008 (0.0018)	149 (328)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	149 (328)
Brown bullhead	0.0020 (0.0040)	340 (751)	0 (0)	42 (91)	0 (0)	0 (0)	0 (0)	0 (0)	382 (756)
Channel catfish	0.0150 (0.0190)	904 (2,032)	71 (146)	0 (0)	15 (35)	0 (0)	1,878 (2,910)	0 (0)	2,868 (3,552)
White bass	0.0019 (0.0024)	0 (0)	38 (78)	334 (443)	0 (0)	0 (0)	0 (0)	0 (0)	372 (450)
Pumpkinseed	0.0003 (0.0006)	0 (0)	0 (0)	0 (0)	66 (134)	0 (0)	0 (0)	0 (0)	66 (134)
White crappie	0.0055 (0.0107)	882 (1,981)	0 (0)	165 (359)	0 (0)	0 (0)	0 (0)	0 (0)	1,047 (2,013)
Yellow perch	2.4448 (1.4573)	288,081 (219,270)	496 (736)	0 (0)	245 (352)	28,456 (23,401)	133,037 (114,635)	16,317 (7,022)	466,632 (248,632)
Walleye	0.0023 (0.0043)	60 (131)	0 (0)	0 (0)	0 (0)	0 (0)	371 (793)	0 (0)	431 (804)
Freshwater drum	0.0013 (0.0016)	0 (0)	71 (146)	169 (260)	8 (17)	0 (0)	0 (0)	0 (0)	248 (299)
Total	2.4739 (1.4609)	290,416 (219,290)	676 (768)	710 (633)	334 (379)	28,456 (23,401)	135,286 (114,675)	16,317 (7,022)	472,195 (248,669)
Angler hours		73,514 (42,277)	56,219 (20,339)	3,581 (2,188)	2,658 (1,197)	17,491 (7,857)	31,584 (18,171)	5,820 (1,535)	190,867 (51,005)
Angler trips		22,349 (10,838)	13,195 (4,460)	2,749 (1,737)	2,053 (904)	3,415 (1,349)	4,347 (2,582)	4,831 (1,599)	52,939 (12,338)
Angler days		21,125 (10,310)	13,195 (4,460)	2,571 (1,633)	2,053 (904)	3,415 (1,349)	4,347 (2,582)	4,831 (1,599)	51,537 (11,862)

Appendix 36. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Bay City to Saganing Creek, by all modes of fishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Northern pike	0.0012 (0.0011)	0 (0)	296 (270)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	296 (270)
Black bullhead	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)	2 (4)
Brown bullhead	0.0020 (0.0018)	67 (145)	402 (395)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	469 (421)
Channel catfish	0.0105 (0.0052)	7 (15)	213 (255)	714 (617)	1,062 (832)	376 (494)	136 (152)	0 (0)	2,508 (1,185)
White perch	0.0024 (0.0045)	0 (0)	529 (1,078)	0 (0)	49 (99)	0 (0)	0 (0)	0 (0)	578 (1,083)
White bass	0.0051 (0.0036)	7 (9)	292 (398)	313 (330)	234 (393)	313 (516)	65 (132)	2 (4)	1,226 (840)
Rock bass	0.0018 (0.0017)	0 (0)	428 (397)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	428 (397)
Green sunfish	0.0017 (0.0017)	0 (0)	402 (395)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	402 (395)
Pumpkinseed	0.0009 (0.0014)	0 (0)	4 (8)	0 (0)	147 (297)	0 (0)	53 (91)	2 (4)	206 (311)
Smallmouth bass	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	11 (22)	0 (0)	11 (22)
Largemouth bass	0.0025 (0.0024)	0 (0)	0 (0)	297 (408)	293 (406)	0 (0)	11 (22)	0 (0)	601 (576)
Yellow perch	1.8046 (0.5132)	123,996 (66,753)	20,531 (16,662)	76,495 (58,997)	64,355 (31,699)	23,841 (14,293)	79,997 (33,492)	43,234 (27,273)	432,449 (106,249)
Walleye	0.0569 (0.0187)	62 (54)	852 (640)	1,468 (1,099)	7,209 (3,332)	3,504 (1,808)	426 (325)	106 (209)	13,627 (4,018)
Freshwater drum	0.0006 (0.0007)	0 (0)	32 (45)	104 (153)	0 (0)	14 (30)	0 (0)	0 (0)	150 (162)
Other	0.0015 (0.0028)	302 (655)	0 (0)	48 (76)	0 (0)	0 (0)	0 (0)	0 (0)	350 (659)

Appendix 36. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	1.8916 (0.5200)	124,441 (66,756)	23,981 (16,732)	79,439 (59,013)	73,349 (31,891)	28,048 (14,425)	80,699 (33,494)	43,346 (27,274)	453,303 (106,347)
Angler hours		26,245 (11,041)	33,275 (16,606)	45,752 (16,020)	77,766 (18,630)	29,520 (10,855)	21,506 (6,972)	5,572 (3,253)	239,636 (34,328)
Angler trips		9,492 (4,600)	9,037 (4,160)	18,097 (14,762)	18,673 (4,402)	6,542 (2,430)	5,697 (1,671)	1,239 (722)	68,777 (16,881)
Angler days		8,837 (4,228)	8,946 (4,116)	17,892 (14,740)	18,605 (4,388)	6,510 (2,422)	5,558 (1,606)	1,239 (722)	67,587 (16,742)

Appendix 37. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Au Gres to Saganing Creek, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Chinook salmon	0.0001 (0.0002)	31 (65)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	31 (65)
Brown trout	0.0002 (0.0005)	66 (149)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	66 (149)
White sucker	0.0011 (0.0023)	467 (976)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	467 (976)
Black bullhead	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	32 (71)	0 (0)	0 (0)	0 (0)	32 (71)
Channel catfish	0.0179 (0.0092)	0 (0)	1,312 (1,243)	3,364 (2,630)	2,395 (2,217)	327 (548)	108 (221)	0 (0)	7,506 (3,705)
White perch	0.0006 (0.0013)	0 (0)	255 (536)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	255 (536)
Largemouth bass	0.0005 (0.0010)	0 (0)	225 (470)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	225 (470)
Yellow perch	1.6641 (0.3883)	187,529 (77,505)	9,069 (6,566)	129,293 (56,837)	59,611 (27,513)	64,948 (31,108)	209,505 (75,909)	36,709 (18,307)	696,664 (130,777)
Walleye	0.0190 (0.0082)	0 (0)	14 (28)	144 (272)	7,214 (3,206)	590 (556)	0 (0)	0 (0)	7,962 (3,265)
Freshwater drum	0.0006 (0.0011)	0 (0)	0 (0)	40 (82)	0 (0)	232 (470)	0 (0)	0 (0)	272 (477)
Other	0.0011 (0.0018)	356 (744)	120 (251)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	476 (785)
Total	1.7054 (0.3919)	188,449 (77,515)	10,995 (6,725)	132,841 (56,899)	69,252 (27,788)	66,097 (31,121)	209,613 (75,909)	36,709 (18,307)	713,956 (130,879)
Angler hours		66,924 (22,700)	38,103 (15,519)	84,286 (29,343)	121,613 (37,477)	44,709 (10,854)	48,911 (14,378)	14,105 (4,288)	418,651 (58,005)
Angler trips		21,076 (7,327)	10,970 (4,236)	18,789 (6,094)	30,724 (9,245)	13,102 (3,141)	11,320 (3,196)	4,520 (1,312)	110,501 (14,698)
Angler days		20,957 (7,292)	10,890 (4,195)	18,178 (5,841)	30,495 (9,179)	13,004 (3,114)	11,320 (3,196)	4,520 (1,312)	109,364 (14,518)

Appendix 38. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Tawas, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0011 (0.0010)	0 (0)	0 (0)	154 (206)	35 (53)	0 (0)	128 (175)	0 (0)	317 (275)
Coho salmon	0.0011 (0.0008)	34 (39)	16 (33)	0 (0)	0 (0)	37 (60)	208 (192)	13 (18)	308 (208)
Chinook salmon	0.0171 (0.0044)	45 (58)	709 (367)	368 (239)	773 (431)	1,312 (649)	1,377 (569)	204 (163)	4,788 (1,074)
Rainbow trout	0.0033 (0.0012)	67 (73)	39 (48)	73 (62)	244 (214)	86 (69)	26 (40)	390 (190)	925 (316)
Brown trout	0.0051 (0.0025)	580 (525)	16 (22)	0 (0)	118 (146)	288 (222)	69 (83)	358 (289)	1,429 (661)
Lake trout	0.0055 (0.0022)	0 (0)	186 (129)	425 (318)	419 (282)	519 (403)	0 (0)	0 (0)	1,549 (600)
Splake	<0.0001 (<0.0001)	0 (0)	4 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (8)
Rainbow smelt	0.4947 (0.4053)	138,773 (112,255)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	138,773 (112,255)
Northern pike	0.0038 (0.0046)	0 (0)	632 (1,274)	26 (55)	119 (114)	170 (132)	129 (111)	0 (0)	1,076 (1,292)
Channel catfish	0.0046 (0.0020)	0 (0)	0 (0)	38 (59)	221 (214)	943 (476)	90 (98)	0 (0)	1,292 (534)
White bass	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	14 (24)	0 (0)	0 (0)	14 (24)
Rock bass	0.0005 (0.0003)	0 (0)	11 (19)	0 (0)	0 (0)	125 (69)	0 (0)	0 (0)	136 (72)
Smallmouth bass	0.0003 (0.0004)	0 (0)	0 (0)	0 (0)	40 (58)	32 (65)	0 (0)	0 (0)	72 (87)
Yellow perch	0.8216 (0.1798)	17,022 (12,556)	7,246 (2,839)	45,882 (16,321)	59,013 (19,814)	47,424 (18,136)	49,203 (21,702)	4,691 (4,144)	230,481 (40,518)
Walleye	0.0062 (0.0030)	159 (346)	3 (5)	163 (330)	81 (78)	896 (567)	320 (284)	124 (110)	1,746 (806)
Freshwater drum	0.0012 (0.0016)	0 (0)	0 (0)	45 (83)	251 (451)	48 (38)	0 (0)	0 (0)	344 (460)

Appendix 38. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	1.3662 (0.4613)	156,680 (112,957)	8,862 (3,137)	47,174 (16,331)	61,314 (19,829)	51,894 (18,170)	51,550 (21,714)	5,780 (4,163)	383,254 (119,365)
Angler hours		52,114 (20,285)	25,531 (9,232)	40,588 (12,554)	45,379 (8,859)	47,549 (15,152)	58,408 (19,171)	10,954 (2,608)	280,523 (36,564)
Angler trips		14,484 (6,014)	7,774 (2,449)	11,290 (3,075)	11,265 (2,022)	11,618 (3,271)	13,503 (4,125)	3,251 (867)	73,185 (9,175)
Angler days		14,411 (6,009)	7,774 (2,449)	9,952 (2,785)	9,343 (1,777)	9,680 (2,844)	10,898 (3,405)	2,580 (729)	64,638 (8,558)

Appendix 39. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Oscoda, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0037 (0.0024)	0 (0)	30 (35)	550 (379)	271 (371)	11 (27)	0 (0)	0 (0)	862 (532)
Coho salmon	0.0005 (0.0007)	0 (0)	0 (0)	0 (0)	69 (135)	10 (22)	28 (42)	0 (0)	107 (143)
Chinook salmon	0.0397 (0.0197)	15 (43)	23 (30)	461 (580)	1,831 (2,099)	4,596 (3,271)	2,219 (1,121)	58 (134)	9,203 (4,089)
Rainbow trout	0.0046 (0.0042)	0 (0)	24 (33)	117 (154)	676 (893)	112 (113)	131 (231)	11 (21)	1,071 (943)
Brown trout	0.0023 (0.0027)	461 (615)	0 (0)	13 (26)	0 (0)	21 (45)	43 (77)	0 (0)	536 (622)
Brook trout	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	15 (36)	0 (0)	0 (0)	15 (36)
Lake trout	0.0252 (0.0123)	0 (0)	317 (252)	2,591 (1,332)	2,680 (2,133)	246 (312)	0 (0)	0 (0)	5,834 (2,547)
Channel catfish	0.0035 (0.0034)	0 (0)	4 (9)	287 (359)	0 (0)	381 (655)	138 (185)	0 (0)	810 (770)
White bass	0.0003 (0.0006)	0 (0)	0 (0)	0 (0)	63 (133)	0 (0)	0 (0)	0 (0)	63 (133)
Smallmouth bass	0.0003 (0.0006)	0 (0)	0 (0)	0 (0)	63 (133)	0 (0)	0 (0)	0 (0)	63 (133)
Yellow perch	0.0001 (0.0002)	0 (0)	14 (22)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	14 (22)
Walleye	0.0035 (0.0025)	0 (0)	106 (162)	278 (393)	0 (0)	386 (355)	53 (77)	0 (0)	823 (559)
Freshwater drum	0.0005 (0.0010)	0 (0)	0 (0)	0 (0)	0 (0)	106 (214)	0 (0)	0 (0)	106 (214)
Lake whitefish	0.0004 (0.0009)	0 (0)	0 (0)	0 (0)	94 (199)	0 (0)	0 (0)	0 (0)	94 (199)
Round whitefish	0.0042 (0.0042)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	38 (76)	943 (954)	981 (957)

Appendix 39. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.0888 (0.0297)	476 (617)	518 (306)	4,297 (1,601)	5,747 (3,160)	5,884 (3,379)	2,650 (1,168)	1,012 (964)	20,584 (5,171)
Angler hours		5,809 (3,485)	11,001 (4,100)	24,043 (7,860)	51,136 (33,209)	69,519 (32,482)	65,587 (18,964)	4,787 (1,721)	231,882 (51,100)
Angler trips		1,827 (1,194)	3,620 (1,038)	6,579 (2,046)	13,943 (7,322)	15,976 (6,621)	20,636 (5,404)	1,703 (517)	64,284 (11,559)
Angler days		1,398 (951)	3,043 (969)	5,692 (1,892)	12,196 (7,030)	13,999 (5,530)	15,191 (5,126)	1,437 (425)	52,956 (10,577)

Appendix 40. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Harrisville, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0050 (0.0035)	48 (65)	615 (582)	112 (110)	125 (103)	0 (0)	0 (0)	900 (605)
Coho salmon	0.0006 (0.0006)	16 (36)	20 (45)	0 (0)	27 (57)	48 (82)	0 (0)	111 (115)
Chinook salmon	0.0747 (0.0257)	35 (49)	132 (169)	1,824 (1,304)	3,900 (1,599)	5,620 (2,542)	1,947 (1,396)	13,458 (3,564)
Rainbow trout	0.0035 (0.0022)	0 (0)	0 (0)	142 (152)	385 (258)	0 (0)	104 (209)	631 (365)
Brown trout	0.0018 (0.0017)	0 (0)	0 (0)	38 (61)	23 (38)	51 (105)	221 (286)	333 (313)
Lake trout	0.0405 (0.0222)	521 (535)	4,188 (3,429)	2,040 (1,159)	542 (280)	0 (0)	0 (0)	7,291 (3,670)
Channel catfish	0.0014 (0.0014)	0 (0)	0 (0)	26 (44)	119 (151)	105 (180)	0 (0)	250 (239)
Yellow perch	0.0002 (0.0003)	0 (0)	0 (0)	23 (49)	7 (15)	0 (0)	0 (0)	30 (51)
Walleye	0.0013 (0.0013)	58 (152)	0 (0)	0 (0)	178 (164)	0 (0)	0 (0)	236 (224)
Round whitefish	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	7 (15)	0 (0)	7 (15)
Total	0.1291 (0.0403)	678 (563)	4,955 (3,482)	4,205 (1,757)	5,306 (1,663)	5,831 (2,552)	2,272 (1,440)	23,247 (5,185)
Angler hours		5,346 (4,534)	23,818 (18,411)	23,757 (12,422)	31,411 (11,512)	85,730 (30,071)	10,068 (1,736)	180,130 (39,416)
Angler trips		1,300 (1,222)	5,339 (3,925)	4,879 (2,580)	6,772 (2,470)	17,780 (6,352)	1,990 (532)	38,060 (8,384)
Angler days		1,235 (1,196)	4,886 (3,773)	4,562 (2,411)	5,750 (2,119)	15,852 (5,914)	1,769 (504)	34,054 (7,823)

Appendix 41. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Alpena, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Pink salmon	0.0036 (0.0016)	0 (0)	172 (87)	18 (23)	24 (24)	20 (29)	0 (0)	29 (62)	0 (0)	263 (116)
Coho salmon	0.0015 (0.0008)	0 (0)	11 (9)	0 (0)	66 (35)	29 (41)	0 (0)	0 (0)	0 (0)	106 (55)
Chinook salmon	0.0580 (0.0103)	18 (21)	230 (79)	532 (193)	2,500 (553)	678 (277)	190 (173)	46 (51)	0 (0)	4,194 (677)
Rainbow trout	0.0092 (0.0025)	15 (15)	24 (31)	48 (41)	324 (105)	64 (46)	0 (0)	58 (77)	135 (95)	668 (176)
Brown trout	0.0430 (0.0079)	662 (273)	63 (34)	577 (195)	1,176 (301)	200 (168)	75 (56)	286 (176)	68 (52)	3,107 (519)
Lake trout	0.0053 (0.0016)	0 (0)	198 (81)	54 (42)	96 (55)	32 (29)	0 (0)	0 (0)	0 (0)	380 (110)
Channel catfish	0.0005 (0.0005)	0 (0)	0 (0)	0 (0)	35 (35)	0 (0)	0 (0)	0 (0)	0 (0)	35 (35)
Walleye	0.0012 (0.0008)	0 (0)	0 (0)	2 (5)	25 (19)	45 (48)	0 (0)	15 (31)	0 (0)	87 (60)
Freshwater drum	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	5 (9)	0 (0)	0 (0)	0 (0)	0 (0)	5 (9)
Lake whitefish	0.0001 (0.0002)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (10)
Other	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	10 (19)	0 (0)	0 (0)	0 (0)	0 (0)	10 (19)
Total	0.1225 (0.0154)	695 (274)	703 (151)	1,231 (282)	4,261 (644)	1,068 (336)	265 (182)	434 (211)	203 (108)	8,860 (891)
Angler hours		6,806 (1,687)	7,097 (1,220)	9,649 (1,839)	32,794 (3,948)	9,058 (2,089)	4,366 (1,375)	1,889 (489)	647 (213)	72,306 (5,463)
Angler trips		1,906 (456)	1,687 (292)	2,177 (421)	5,640 (704)	1,883 (438)	1,198 (385)	740 (194)	309 (110)	15,540 (1,164)
Angler days		1,906 (456)	1,687 (292)	2,177 (421)	5,640 (704)	1,883 (438)	1,198 (385)	740 (194)	309 (110)	15,540 (1,164)

Appendix 42. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Rockport boat fishery, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month				Season total
		Jun	Jul	Aug	Sep	
Pink salmon	0.0177 (0.0095)	311 (257)	111 (95)	384 (335)	55 (113)	861 (447)
Coho salmon	0.0074 (0.0059)	28 (56)	91 (96)	186 (233)	55 (113)	360 (282)
Chinook salmon	0.1575 (0.0446)	104 (153)	2,997 (965)	4,311 (1,578)	250 (194)	7,662 (1,866)
Rainbow trout	0.0073 (0.0045)	0 (0)	80 (82)	273 (193)	0 (0)	353 (210)
Brown trout	0.0069 (0.0072)	0 (0)	12 (25)	115 (176)	209 (297)	336 (346)
Lake trout	0.0035 (0.0041)	106 (185)	41 (59)	21 (26)	0 (0)	168 (196)
Channel catfish	0.0009 (0.0014)	0 (0)	39 (69)	6 (12)	0 (0)	45 (70)
Walleye	0.0003 (0.0006)	0 (0)	13 (26)	0 (0)	0 (0)	13 (26)
Total	0.2014 (0.0503)	549 (356)	3,384 (983)	5,296 (1,651)	569 (389)	9,798 (1,993)
Angler hours		5,463 (1,682)	17,253 (4,278)	21,498 (5,156)	4,435 (1,371)	48,649 (7,042)
Angler trips		1,329 (424)	4,086 (1,036)	5,251 (1,337)	1,035 (327)	11,701 (1,774)
Angler days		1,272 (415)	3,903 (1,000)	5,199 (1,332)	1,035 (327)	11,409 (1,747)

Appendix 43. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Rogers City, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0039 (0.0023)	0 (0)	10 (16)	58 (81)	155 (118)	85 (73)	16 (18)	0 (0)	324 (162)
Coho salmon	0.0009 (0.0008)	0 (0)	0 (0)	0 (0)	13 (17)	0 (0)	58 (59)	0 (0)	71 (61)
Chinook salmon	0.1420 (0.0630)	0 (0)	1 (2)	36 (45)	1,770 (954)	5,979 (3,318)	3,822 (1,863)	131 (93)	11,739 (3,924)
Rainbow trout	0.0057 (0.0031)	0 (0)	15 (24)	9 (14)	71 (58)	65 (68)	0 (0)	309 (194)	469 (215)
Brown trout	0.0026 (0.0017)	8 (12)	2 (3)	0 (0)	83 (80)	28 (44)	4 (8)	93 (81)	218 (123)
Brook trout	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	12 (25)	0 (0)	0 (0)	0 (0)	12 (25)
Lake trout	0.0118 (0.0069)	0 (0)	266 (183)	323 (361)	358 (285)	27 (39)	0 (0)	0 (0)	974 (497)
White bass	0.0001 (0.0002)	0 (0)	7 (15)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (15)
Yellow perch	0.0017 (0.0023)	0 (0)	0 (0)	143 (192)	0 (0)	0 (0)	0 (0)	0 (0)	143 (192)
Lake whitefish	0.0007 (0.0014)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	62 (124)	62 (124)
Round whitefish	0.0066 (0.0048)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	547 (366)	547 (366)
Total	0.1761 (0.0705)	8 (12)	301 (186)	569 (419)	2,462 (1,008)	6,184 (3,320)	3,900 (1,864)	1,142 (450)	14,566 (3,991)
Angler hours		363 (271)	1,509 (665)	2,485 (2,190)	13,192 (6,241)	34,608 (18,584)	28,705 (13,857)	1,836 (550)	82,698 (24,124)
Angler trips		226 (123)	480 (195)	709 (602)	3,336 (1,589)	7,193 (3,839)	6,342 (3,070)	496 (141)	18,782 (5,208)
Angler days		205 (114)	461 (188)	680 (572)	2,986 (1,421)	6,424 (3,423)	5,726 (2,802)	471 (135)	16,953 (4,688)

Appendix 44. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for St. Ignace, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0396 (0.0318)	0 (0)	0 (0)	5 (8)	1,159 (1,108)	1,789 (2,014)	0 (0)	2,953 (2,299)
Coho salmon	0.0084 (0.0079)	0 (0)	19 (40)	40 (80)	439 (547)	126 (140)	0 (0)	624 (572)
Chinook salmon	0.1009 (0.0381)	0 (0)	74 (81)	189 (110)	2,939 (1,642)	4,319 (1,781)	1 (4)	7,522 (2,426)
Brown trout	0.0054 (0.0041)	0 (0)	0 (0)	135 (191)	0 (0)	255 (223)	11 (25)	401 (295)
Northern pike	0.0075 (0.0077)	0 (0)	0 (0)	42 (71)	211 (312)	290 (458)	13 (26)	556 (559)
Brown bullhead	0.0014 (0.0025)	0 (0)	0 (0)	16 (32)	85 (174)	0 (0)	0 (0)	101 (177)
Rock bass	0.0053 (0.0075)	0 (0)	0 (0)	140 (189)	255 (522)	0 (0)	0 (0)	395 (555)
Yellow perch	0.0171 (0.0194)	0 (0)	4 (6)	203 (197)	444 (776)	614 (1,182)	11 (25)	1,276 (1,428)
Other	0.0001 (0.0002)	0 (0)	0 (0)	7 (15)	0 (0)	0 (0)	0 (0)	7 (15)
Total	0.1856 (0.0625)	0 (0)	97 (91)	777 (369)	5,532 (2,286)	7,393 (2,984)	36 (44)	13,835 (3,778)
Angler hours		918 (580)	1,205 (701)	7,200 (2,881)	20,586 (8,265)	44,446 (11,779)	185 (172)	74,540 (14,704)
Angler trips		339 (199)	231 (144)	1,363 (557)	4,670 (1,891)	14,706 (4,178)	73 (70)	21,382 (4,627)
Angler days		339 (199)	196 (131)	1,055 (446)	3,472 (1,440)	12,644 (3,891)	72 (70)	17,778 (4,180)

Appendix 45. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Les Cheneaux Island area, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0281 (0.0129)	0 (0)	0 (0)	18 (37)	316 (390)	2,350 (1,341)	2,439 (1,426)	0 (0)	5,123 (1,996)
Coho salmon	0.0010 (0.0012)	0 (0)	0 (0)	0 (0)	151 (208)	10 (21)	14 (18)	0 (0)	175 (210)
Chinook salmon	0.0064 (0.0035)	0 (0)	0 (0)	0 (0)	134 (202)	481 (331)	556 (417)	0 (0)	1,171 (569)
Atlantic salmon	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	9 (19)	0 (0)	9 (19)
Brown trout	0.0025 (0.0018)	0 (0)	53 (99)	78 (162)	180 (202)	106 (126)	48 (52)	0 (0)	465 (309)
Brook trout	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	17 (34)	0 (0)	17 (34)
Northern pike	0.0322 (0.0115)	0 (0)	492 (348)	1,652 (959)	1,002 (458)	1,765 (965)	931 (414)	27 (27)	5,869 (1,534)
Tiger musky	<0.0001 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (11)	2 (4)	0 (0)	8 (12)
Black bullhead	0.0274 (0.0143)	0 (0)	0 (0)	0 (0)	716 (661)	3,484 (2,163)	785 (450)	17 (21)	5,002 (2,306)
Yellow bullhead	0.0110 (0.0094)	0 (0)	64 (110)	1,802 (1,617)	133 (178)	0 (0)	0 (0)	0 (0)	1,999 (1,630)
Brown bullhead	0.0007 (0.0012)	0 (0)	18 (36)	111 (226)	0 (0)	0 (0)	7 (15)	0 (0)	136 (229)
Channel catfish	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	22 (45)	3 (6)	25 (45)
White perch	0.0006 (0.0012)	0 (0)	0 (0)	118 (243)	0 (0)	0 (0)	0 (0)	0 (0)	118 (243)
Rock bass	0.0990 (0.0350)	0 (0)	30 (61)	43 (88)	1,544 (1,324)	5,957 (2,810)	9,740 (3,410)	757 (360)	18,071 (4,628)
Pumpkinseed	0.0122 (0.0076)	0 (0)	0 (0)	0 (0)	0 (0)	1,102 (963)	1,118 (820)	0 (0)	2,220 (1,265)
Bluegill	0.0010 (0.0007)	0 (0)	0 (0)	0 (0)	13 (26)	0 (0)	47 (63)	118 (88)	178 (111)

Appendix 45. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Redear sunfish	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	20 (41)	0 (0)	20 (41)
Smallmouth bass	0.0101 (0.0043)	0 (0)	74 (117)	236 (202)	191 (273)	608 (386)	688 (350)	55 (46)	1,852 (635)
Largemouth bass	0.0002 (0.0002)	0 (0)	0 (0)	5 (11)	0 (0)	10 (21)	18 (24)	0 (0)	33 (34)
White crappie	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5 (11)	0 (0)	5 (11)
Yellow perch	0.7603 (0.3110)	45,227 (41,914)	12,648 (4,450)	7,649 (4,767)	3,941 (1,860)	24,446 (11,020)	38,369 (12,030)	6,489 (2,568)	138,769 (45,558)
Walleye	0.0013 (0.0022)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	246 (420)	0 (0)	246 (420)
Round whitefish	0.0087 (0.0079)	0 (0)	0 (0)	0 (0)	1,592 (1,391)	0 (0)	0 (0)	0 (0)	1,592 (1,391)
Other	0.0261 (0.0145)	401 (929)	0 (0)	3,086 (1,946)	1,268 (1,013)	0 (0)	13 (25)	0 (0)	4,768 (2,383)
Total	1.0294 (0.3561)	45,628 (41,924)	13,379 (4,468)	14,798 (5,498)	11,181 (3,034)	40,325 (11,745)	55,094 (12,646)	7,466 (2,595)	187,871 (46,061)
Angler hours		51,327 (40,984)	19,915 (4,157)	27,993 (11,482)	26,959 (7,822)	26,147 (5,990)	26,665 (7,528)	3,502 (1,165)	182,508 (44,541)
Angler trips		8,821 (7,181)	5,887 (1,220)	5,857 (2,388)	5,291 (1,539)	6,184 (1,496)	5,769 (1,600)	883 (297)	38,692 (8,125)
Angler days		8,620 (7,085)	5,887 (1,220)	5,676 (2,335)	5,008 (1,461)	6,002 (1,472)	4,808 (1,343)	713 (246)	36,714 (7,956)

Appendix 46. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Detour, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.2054 (0.1231)	0 (0)	0 (0)	0 (0)	2,859 (2,393)	4,554 (3,175)	41 (93)	7,454 (3,977)
Coho salmon	0.0074 (0.0097)	0 (0)	0 (0)	0 (0)	41 (84)	123 (270)	105 (196)	269 (344)
Chinook salmon	0.0544 (0.0408)	0 (0)	0 (0)	105 (135)	1,153 (1,152)	644 (727)	74 (183)	1,976 (1,381)
Northern pike	0.0273 (0.0259)	305 (445)	53 (117)	0 (0)	99 (219)	535 (744)	0 (0)	992 (902)
Yellow perch	0.1142 (0.0962)	56 (115)	1,614 (1,135)	0 (0)	2,460 (3,100)	0 (0)	14 (40)	4,144 (3,303)
Lake whitefish	0.0011 (0.0025)	0 (0)	0 (0)	0 (0)	41 (91)	0 (0)	0 (0)	41 (91)
Other	0.0947 (0.1295)	0 (0)	0 (0)	3,439 (4,609)	0 (0)	0 (0)	0 (0)	3,439 (4,609)
Total	0.5046 (0.2400)	361 (460)	1,667 (1,141)	3,544 (4,611)	6,653 (4,090)	5,856 (3,352)	234 (287)	18,315 (7,129)
Angler hours		955 (1,339)	896 (557)	8,153 (5,187)	11,150 (5,501)	14,880 (6,248)	263 (387)	36,297 (9,923)
Angler trips		321 (447)	349 (253)	3,293 (2,330)	2,519 (1,181)	4,323 (2,237)	117 (183)	10,922 (3,482)
Angler days		313 (446)	268 (207)	3,248 (2,326)	2,147 (1,034)	2,983 (1,654)	78 (128)	9,037 (3,078)

Appendix 47. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Drummond Island area, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0124 (0.0123)	0 (0)	0 (0)	0 (0)	0 (0)	1,429 (3,058)	2,725 (2,707)	0 (0)	4,154 (4,084)
Coho salmon	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	57 (116)	0 (0)	0 (0)	57 (116)
Chinook salmon	0.0031 (0.0029)	0 (0)	0 (0)	0 (0)	361 (535)	486 (766)	143 (221)	50 (105)	1,040 (966)
Northern pike	0.0423 (0.0157)	348 (609)	1,661 (1,174)	1,364 (1,170)	4,011 (3,008)	4,595 (2,884)	1,548 (1,344)	601 (606)	14,128 (4,760)
White sucker	0.0007 (0.0014)	0 (0)	0 (0)	229 (469)	0 (0)	0 (0)	0 (0)	0 (0)	229 (469)
Redhorse (spp)	0.0002 (0.0004)	67 (139)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	67 (139)
Brown bullhead	0.0162 (0.0171)	4,101 (5,574)	0 (0)	528 (610)	0 (0)	267 (571)	267 (404)	253 (332)	5,416 (5,660)
Channel catfish	0.0010 (0.0011)	0 (0)	96 (201)	232 (288)	0 (0)	0 (0)	0 (0)	0 (0)	328 (351)
Rock bass	0.0388 (0.0190)	0 (0)	938 (1,061)	4,672 (3,885)	1,987 (2,438)	2,638 (3,085)	2,453 (2,173)	285 (429)	12,973 (6,049)
Pumpkinseed	0.0006 (0.0012)	190 (386)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	190 (386)
Bluegill	0.0014 (0.0022)	0 (0)	0 (0)	64 (130)	0 (0)	53 (106)	345 (710)	0 (0)	462 (730)
Longear sunfish	0.0058 (0.0077)	0 (0)	0 (0)	0 (0)	1,942 (2,561)	0 (0)	0 (0)	0 (0)	1,942 (2,561)
Redear sunfish	0.0149 (0.0191)	0 (0)	80 (168)	3,047 (5,689)	1,276 (2,702)	527 (767)	0 (0)	50 (105)	4,980 (6,348)
Smallmouth bass	0.0068 (0.0045)	0 (0)	0 (0)	549 (777)	0 (0)	1,177 (1,087)	457 (556)	86 (179)	2,269 (1,458)
Largemouth bass	0.0002 (0.0004)	0 (0)	69 (146)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	69 (146)
Yellow perch	0.6591 (0.2740)	2,496 (1,775)	78,400 (65,917)	2,185 (1,791)	5,877 (7,316)	15,549 (11,333)	97,461 (50,410)	18,171 (12,686)	220,139 (85,062)

Appendix 47. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Walleye	0.0194 (0.0091)	0 (0)	870 (824)	1,027 (878)	2,410 (2,150)	2,036 (1,496)	142 (214)	0 (0)	6,485 (2,891)
Lake whitefish	0.0120 (0.0246)	0 (0)	0 (0)	4,013 (8,211)	0 (0)	0 (0)	0 (0)	0 (0)	4,013 (8,211)
Lake herring	0.1560 (0.0929)	0 (0)	116 (182)	22,622 (20,446)	29,150 (21,920)	126 (255)	0 (0)	90 (189)	52,104 (29,978)
Total	0.9911 (0.3133)	7,202 (5,896)	82,230 (65,942)	40,532 (23,228)	47,014 (23,828)	28,940 (12,674)	105,541 (50,558)	19,586 (12,716)	331,045 (91,481)
Angler hours		23,486 (4,698)	56,946 (29,686)	50,618 (14,692)	81,718 (30,526)	47,130 (13,753)	57,653 (18,235)	16,458 (7,411)	334,009 (51,260)
Angler trips		4,522 (940)	14,131 (7,505)	14,685 (4,355)	29,281 (11,219)	15,071 (4,577)	13,910 (4,485)	5,779 (2,611)	97,379 (15,809)
Angler days		4,522 (940)	8,516 (4,551)	8,570 (2,590)	17,945 (7,065)	8,570 (2,631)	7,238 (2,371)	3,690 (1,765)	59,051 (9,689)

SECTION III.

Lake Erie Catch and Effort Estimates by Site

Appendix 48. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Lake Erie boat fishery from Pointe Mouillee to the Raisin River, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Yellow bullhead	0.0001 (0.0002)	157 (353)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	157 (353)
Channel catfish	0.0024 (0.0022)	0 (0)	670 (1,160)	51 (103)	1,119 (1,366)	0 (0)	904 (1,661)	0 (0)	2,744 (2,446)
White perch	0.0084 (0.0150)	0 (0)	223 (463)	330 (482)	0 (0)	0 (0)	1,212 (1,497)	7,678 (16,739)	9,443 (16,819)
White bass	0.0343 (0.0344)	862 (1,940)	4,547 (5,064)	783 (762)	4,159 (4,920)	6,268 (12,866)	5,779 (5,318)	16,284 (34,877)	38,682 (38,268)
Rock bass	0.0001 (0.0002)	0 (0)	0 (0)	51 (103)	79 (169)	0 (0)	0 (0)	0 (0)	130 (198)
Largemouth bass	0.0002 (0.0004)	0 (0)	0 (0)	207 (419)	0 (0)	0 (0)	0 (0)	0 (0)	207 (419)
Black crappie	0.0024 (0.0041)	0 (0)	0 (0)	621 (1,257)	2,057 (4,385)	0 (0)	0 (0)	0 (0)	2,678 (4,562)
Yellow perch	0.2646 (0.1435)	0 (0)	10,805 (13,085)	1,105 (1,686)	4,355 (6,753)	5,459 (11,679)	140,181 (95,453)	136,900 (118,923)	298,805 (153,656)
Walleye	0.2814 (0.0816)	29 (66)	30,809 (13,948)	170,496 (52,383)	98,316 (40,659)	2,938 (6,031)	15,203 (29,747)	0 (0)	317,791 (74,249)
Freshwater drum	0.0041 (0.0051)	235 (529)	1,055 (1,340)	0 (0)	775 (1,319)	2,612 (5,361)	0 (0)	0 (0)	4,677 (5,706)
Other	0.0001 (0.0002)	0 (0)	78 (162)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	78 (162)
Total	0.5981 (0.1866)	1,283 (2,043)	48,187 (19,869)	173,644 (52,435)	110,860 (41,783)	17,277 (19,158)	163,279 (100,147)	160,862 (125,057)	675,392 (175,869)
Angler hours		4,501 (3,767)	144,491 (58,360)	447,460 (124,725)	352,988 (128,211)	87,599 (35,518)	67,050 (27,011)	25,106 (13,974)	1,129,195 (193,909)
Angler trips		963 (833)	26,226 (10,422)	69,860 (19,449)	63,968 (23,770)	16,801 (8,570)	12,808 (5,414)	6,870 (3,863)	197,496 (34,209)
Angler days		963 (833)	25,911 (10,322)	69,173 (19,259)	63,600 (23,726)	16,801 (8,570)	12,808 (5,414)	6,870 (3,863)	196,126 (34,040)

Appendix 49. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Lake Erie boat fishery from the mouth of the Raisin River to the Michigan-Ohio state line, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Rainbow trout	0.0001 (0.0001)	0 (0)	40 (82)	50 (103)	0 (0)	0 (0)	0 (0)	0 (0)	90 (132)
Black bullhead	0.0001 (0.0002)	0 (0)	144 (243)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	144 (243)
Yellow bullhead	0.0007 (0.0011)	864 (1,321)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	864 (1,321)
Brown bullhead	0.0069 (0.0114)	44 (97)	148 (321)	78 (160)	2,071 (3,268)	0 (0)	6,785 (14,617)	0 (0)	9,126 (14,982)
Channel catfish	0.0483 (0.0483)	1,129 (1,270)	5,280 (5,528)	5,079 (5,825)	4,030 (3,783)	1,075 (2,203)	39,764 (60,976)	7,665 (12,649)	64,022 (62,955)
White perch	0.0392 (0.0379)	0 (0)	0 (0)	0 (0)	2,293 (3,215)	18,518 (20,461)	31,152 (44,724)	0 (0)	51,963 (49,287)
White bass	0.0988 (0.0618)	2,267 (2,325)	14,649 (13,608)	18,830 (20,347)	14,961 (15,062)	27,749 (40,651)	52,460 (60,641)	158 (334)	131,074 (78,495)
Rock bass	0.0000 (0)	38 (83)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	38 (83)
Bluegill	0.0036 (0.0066)	95 (208)	75 (155)	0 (0)	0 (0)	4,106 (8,690)	0 (0)	548 (1,157)	4,824 (8,771)
White crappie	0.0000 (0)	7 (16)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (16)
Black crappie	0.0003 (0.0006)	4 (8)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	329 (694)	333 (694)
Yellow perch	0.2414 (0.2702)	0 (0)	2,411 (3,267)	6,833 (5,447)	4,078 (4,709)	4,236 (4,726)	130,879 (109,144)	171,870 (336,434)	320,307 (353,815)
Walleye	0.4406 (0.1272)	1,147 (1,171)	91,986 (43,569)	202,724 (75,812)	272,209 (97,652)	12,207 (8,388)	4,314 (6,492)	0 (0)	584,587 (131,512)
Freshwater drum	0.0156 (0.0122)	1,707 (2,179)	5,836 (6,187)	1,891 (2,893)	4,992 (6,545)	350 (617)	5,883 (12,290)	0 (0)	20,659 (15,673)
Other	0.0004 (0.0005)	153 (336)	428 (588)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	581 (677)

Appendix 49. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.8959 (0.3387)	7,455 (3,880)	120,997 (46,513)	235,485 (78,952)	304,634 (99,313)	68,241 (47,377)	271,237 (147,360)	180,570 (336,675)	1,188,619 (394,442)
Angler hours		8,817 (6,532)	173,799 (78,557)	411,044 (144,120)	445,621 (153,261)	116,255 (52,615)	111,308 (53,642)	59,864 (39,769)	1,326,708 (240,210)
Angler trips		1,923 (1,434)	31,988 (14,438)	74,058 (25,513)	78,209 (28,747)	30,166 (15,057)	22,598 (11,179)	14,838 (10,640)	253,780 (46,397)
Angler days		1,923 (1,434)	31,719 (14,320)	73,387 (25,266)	77,943 (28,593)	30,166 (15,057)	22,598 (11,179)	14,838 (10,640)	252,574 (46,130)

SECTION IV.

Lake Superior Catch and Effort Estimates by Site

Appendix 50. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Black River Harbor, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0333 (0.0143)	56 (46)	430 (228)	345 (283)	193 (256)	58 (69)	28 (57)	1,110 (456)
Chinook salmon	0.0217 (0.0171)	6 (10)	57 (44)	65 (92)	48 (100)	548 (543)	0 (0)	724 (562)
Rainbow trout	0.0039 (0.0052)	9 (9)	18 (20)	90 (168)	5 (10)	7 (15)	0 (0)	129 (170)
Atlantic salmon	0.0002 (0.0003)	0 (0)	4 (8)	0 (0)	0 (0)	4 (7)	0 (0)	8 (11)
Brown trout	0.0001 (0.0002)	3 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (6)
Lake trout	0.1291 (0.0392)	121 (87)	1,604 (571)	1,520 (898)	750 (461)	284 (225)	21 (42)	4,300 (1,185)
Northern pike	0.0003 (0.0006)	0 (0)	0 (0)	0 (0)	0 (0)	11 (21)	0 (0)	11 (21)
Other	0.0001 (0.0002)	0 (0)	3 (7)	0 (0)	0 (0)	0 (0)	0 (0)	3 (7)
Total	0.1887 (0.0484)	195 (100)	2,116 (617)	2,020 (961)	996 (537)	912 (592)	49 (71)	6,288 (1,399)
Angler hours		1,152 (565)	7,738 (2,362)	7,322 (2,641)	6,743 (1,828)	10,047 (1,409)	316 (135)	33,318 (4,268)
Angler trips		169 (84)	1,064 (332)	1,375 (560)	1,267 (332)	2,615 (430)	84 (42)	6,574 (853)
Angler days		169 (84)	1,064 (332)	1,303 (552)	1,484 (430)	2,218 (409)	84 (42)	6,322 (881)

Appendix 51. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Ontonagon, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)
Coho salmon	0.0061 (0.0037)	6 (13)	44 (54)	15 (26)	36 (30)	5 (10)	13 (5)	119 (69)
Chinook salmon	0.0058 (0.0087)	12 (24)	7 (14)	0 (0)	6 (8)	88 (165)	0 (0)	113 (168)
Rainbow trout	0.0016 (0.0025)	6 (12)	0 (0)	23 (47)	2 (3)	0 (0)	0 (0)	31 (49)
Brown trout	0.0011 (0.0017)	15 (31)	6 (11)	0 (0)	0 (0)	0 (0)	0 (0)	21 (33)
Lake trout	0.2153 (0.0713)	377 (356)	1,430 (728)	533 (323)	1,491 (810)	322 (249)	49 (34)	4,202 (1,217)
Rock bass	0.0029 (0.0023)	0 (0)	16 (32)	0 (0)	41 (30)	0 (0)	0 (0)	57 (44)
Smallmouth bass	0.0007 (0.0015)	0 (0)	0 (0)	0 (0)	13 (28)	0 (0)	0 (0)	13 (28)
Walleye	0.0219 (0.0204)	116 (99)	308 (380)	0 (0)	4 (9)	0 (0)	0 (0)	428 (393)
Lake whitefish	0.0010 (0.0021)	0 (0)	19 (39)	0 (0)	0 (0)	0 (0)	0 (0)	19 (39)
Total	0.2564 (0.0781)	532 (372)	1,830 (825)	571 (327)	1,594 (812)	415 (299)	62 (34)	5,004 (1,295)
Angler hours		2,264 (847)	6,929 (1,958)	2,946 (1,213)	4,231 (1,662)	2,727 (981)	418 (211)	19,515 (3,129)
Angler trips		594 (231)	1,640 (453)	650 (274)	747 (286)	651 (243)	79 (54)	4,361 (691)
Angler days		532 (216)	1,564 (442)	650 (274)	763 (290)	651 (243)	66 (54)	4,226 (681)

Appendix 52. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Keweenaw Bay boat fishery, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0093 (0.0093)	0 (0)	0 (0)	0 (0)	61 (98)	4 (9)	37 (52)	17 (35)	119 (117)
Chinook salmon	0.0003 (0.0006)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (8)	0 (0)	4 (8)
Lake trout	0.2996 (0.1016)	0 (0)	0 (0)	994 (524)	712 (413)	547 (388)	1,190 (644)	405 (320)	3,848 (1,055)
Northern pike	0.0018 (0.0028)	0 (0)	0 (0)	0 (0)	0 (0)	23 (36)	0 (0)	0 (0)	23 (36)
Total	0.3110 (0.1034)	0 (0)	0 (0)	994 (524)	773 (424)	574 (390)	1,231 (646)	422 (322)	3,994 (1,062)
Angler hours		0 (0)	0 (0)	3,531 (1,042)	2,628 (1,295)	1,356 (654)	4,690 (1,798)	639 (374)	12,844 (2,562)
Angler trips		0 (0)	0 (0)	765 (238)	617 (311)	342 (174)	1,248 (486)	218 (131)	3,190 (661)
Angler days		0 (0)	0 (0)	765 (238)	617 (311)	342 (174)	1,248 (486)	218 (131)	3,190 (661)

Appendix 53. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Huron Bay boat fishery, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0020 (0.0024)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	9 (15)	4 (9)	15 (18)
Chinook salmon	0.0040 (0.0054)	0 (0)	1 (3)	18 (37)	0 (0)	11 (16)	0 (0)	0 (0)	30 (40)
Rainbow trout	0.0065 (0.0088)	0 (0)	5 (10)	0 (0)	0 (0)	0 (0)	29 (62)	15 (21)	49 (66)
Brown trout	0.0001 (0.0002)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)
Lake trout	0.2526 (0.0828)	0 (0)	291 (239)	546 (283)	478 (279)	414 (212)	116 (100)	46 (79)	1,891 (526)
Northern pike	0.0003 (0.0008)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (5)	0 (0)	2 (5)
Walleye	0.0016 (0.0032)	0 (0)	0 (0)	0 (0)	0 (0)	12 (24)	0 (0)	0 (0)	12 (24)
Other	0.0005 (0.0011)	0 (0)	4 (9)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (9)
Total	0.2677 (0.0849)	0 (0)	304 (239)	564 (285)	478 (279)	437 (214)	156 (119)	65 (82)	2,004 (532)
Angler hours		0 (0)	807 (291)	2,259 (796)	2,257 (786)	1,432 (486)	501 (292)	229 (161)	7,485 (1,297)
Angler trips		0 (0)	197 (74)	420 (152)	576 (215)	385 (136)	127 (71)	60 (43)	1,765 (317)
Angler days		0 (0)	193 (73)	420 (152)	576 (215)	364 (132)	127 (71)	60 (43)	1,740 (315)

Appendix 54. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Big Bay, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Brook trout	0.0026 (0.3056)	0 (0)	0 (0)	8 (17)	0 (0)	0 (0)	0 (0)	0 (0)	8 (17)
Lake trout	0.1944 (0.1103)	0 (0)	0 (0)	404 (279)	200 (128)	0 (0)	0 (0)	0 (0)	604 (307)
Lake whitefish	0.0006 (0.0012)	0 (0)	0 (0)	2 (4)	0 (0)	0 (0)	0 (0)	0 (0)	2 (4)
Total	0.1976 (0.1110)	0 (0)	0 (0)	414 (280)	200 (128)	0 (0)	0 (0)	0 (0)	614 (308)
Angler hours		0 (0)	0 (0)	2,312 (742)	582 (216)	213 (138)	0 (0)	0 (0)	3,107 (785)
Angler trips		0 (0)	0 (0)	588 (198)	189 (77)	172 (118)	0 (0)	0 (0)	949 (243)
Angler days		0 (0)	0 (0)	550 (188)	181 (72)	163 (117)	0 (0)	0 (0)	894 (233)

Appendix 55. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Munising, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Coho salmon	0.0884 (0.0258)	1,213 (483)	305 (149)	19 (20)	0 (0)	7 (14)	197 (133)	141 (92)	1 (2)	1,883 (531)
Chinook salmon	0.0080 (0.0052)	17 (29)	143 (105)	2 (3)	0 (0)	0 (0)	9 (17)	0 (0)	0 (0)	171 (110)
Rainbow trout	0.0105 (0.0050)	165 (96)	30 (25)	0 (0)	0 (0)	0 (0)	0 (0)	20 (35)	9 (15)	224 (106)
Brown trout	0.0023 (0.0019)	11 (14)	37 (38)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	48 (40)
Lake trout	0.0448 (0.0123)	114 (108)	355 (154)	263 (121)	95 (65)	27 (42)	21 (43)	78 (71)	0 (0)	953 (251)
Splake	0.0035 (0.0027)	3 (5)	34 (44)	10 (19)	0 (0)	7 (14)	0 (0)	10 (14)	11 (22)	75 (57)
Northern pike	0.0009 (0.0010)	0 (0)	0 (0)	5 (7)	9 (19)	0 (0)	0 (0)	6 (11)	0 (0)	20 (23)
Yellow perch	0.0859 (0.0667)	780 (1,155)	428 (536)	394 (580)	133 (148)	39 (60)	55 (111)	0 (0)	0 (0)	1,829 (1,413)
Lake whitefish	0.0191 (0.0154)	239 (291)	48 (76)	119 (124)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	406 (325)
Round whitefish	0.0035 (0.0050)	17 (34)	8 (12)	50 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	75 (106)
Total	0.2669 (0.0768)	2,559 (1,294)	1,388 (595)	862 (614)	237 (163)	80 (76)	282 (179)	255 (123)	21 (27)	5,684 (1,577)
Angler hours		6,313 (1,146)	3,861 (602)	3,039 (567)	1,818 (448)	1,113 (221)	3,271 (583)	1,676 (310)	203 (66)	21,294 (1,639)
Angler trips		1,890 (357)	900 (158)	606 (125)	382 (103)	246 (58)	997 (183)	821 (164)	135 (49)	5,977 (495)
Angler days		1,848 (353)	892 (158)	606 (125)	382 (103)	246 (58)	997 (183)	821 (164)	135 (49)	5,927 (492)

SECTION V.

River Catch and Effort Estimates by Site

Appendix 56. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the St. Joseph River (Berrien Springs dam to the I-94 park), by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	4 (9)	0 (0)	0 (0)	0 (0)	0 (0)	4 (9)
Chinook salmon	0.0460 (0.0098)	159 (302)	0 (0)	0 (0)	22 (47)	28 (57)	390 (204)	6,815 (1,802)	7,816 (2,511)	15,230 (3,113)
Rainbow trout	0.0321 (0.0102)	3,322 (2,515)	0 (0)	0 (0)	82 (99)	1,676 (1,028)	306 (199)	2,559 (1,450)	2,673 (1,249)	10,618 (3,331)
Brown trout	0.0023 (0.0014)	60 (84)	0 (0)	0 (0)	25 (36)	57 (60)	74 (84)	535 (446)	3 (7)	754 (467)
Brook trout	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	15 (30)	0 (0)	0 (0)	0 (0)	15 (30)
Lake trout	0.0005 (0.0009)	0 (0)	0 (0)	0 (0)	16 (24)	0 (0)	0 (0)	0 (0)	147 (296)	163 (297)
Northern pike	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	17 (35)	0 (0)	0 (0)	0 (0)	17 (35)
White sucker	0.0034 (0.0056)	975 (1,810)	0 (0)	0 (0)	0 (0)	136 (273)	0 (0)	0 (0)	0 (0)	1,111 (1,830)
Redhorse (spp)	0.0032 (0.0028)	529 (764)	0 (0)	0 (0)	304 (421)	0 (0)	214 (236)	0 (0)	0 (0)	1,047 (904)
Black bullhead	0.0003 (0.0004)	0 (0)	0 (0)	0 (0)	43 (86)	62 (94)	0 (0)	0 (0)	0 (0)	105 (127)
Yellow bullhead	0.0001 (0.0001)	0 (0)	0 (0)	0 (0)	18 (36)	0 (0)	17 (35)	0 (0)	0 (0)	35 (50)
Channel catfish	0.0134 (0.0037)	0 (0)	0 (0)	0 (0)	970 (553)	1,876 (820)	1,021 (468)	391 (427)	164 (147)	4,422 (1,184)
White bass	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	76 (154)	0 (0)	0 (0)	0 (0)	76 (154)
Rock bass	0.0009 (0.0009)	0 (0)	0 (0)	0 (0)	178 (250)	113 (147)	10 (14)	0 (0)	0 (0)	301 (290)
Bluegill	0.0030 (0.0028)	0 (0)	0 (0)	0 (0)	228 (392)	215 (256)	382 (736)	166 (333)	0 (0)	991 (934)
Longear sunfish	0.0003 (0.0004)	0 (0)	0 (0)	0 (0)	101 (143)	0 (0)	0 (0)	0 (0)	0 (0)	101 (143)

Appendix 56. Continued:

Species	Total catch per hour	Month								Season total
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Redear sunfish	0.0004 (0.0008)	0 (0)	0 (0)	0 (0)	145 (290)	0 (0)	0 (0)	0 (0)	0 (0)	145 (290)
Smallmouth bass	0.0033 (0.0018)	0 (0)	0 (0)	0 (0)	307 (222)	192 (153)	440 (510)	139 (131)	4 (8)	1,082 (592)
White crappie	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	38 (78)	38 (78)
Yellow perch	0.0135 (0.0124)	0 (0)	0 (0)	0 (0)	3,762 (4,018)	721 (849)	0 (0)	0 (0)	0 (0)	4,483 (4,107)
Walleye	0.0068 (0.0024)	0 (0)	0 (0)	0 (0)	699 (389)	912 (527)	572 (427)	36 (50)	45 (91)	2,264 (789)
Freshwater drum	0.0129 (0.0051)	0 (0)	0 (0)	0 (0)	1,097 (856)	1,886 (1,088)	1,234 (923)	55 (80)	10 (20)	4,282 (1,666)
Other	0.0026 (0.0023)	0 (0)	0 (0)	0 (0)	730 (769)	15 (23)	87 (125)	13 (27)	31 (52)	876 (782)
Total	0.1455 (0.0228)	5,045 (3,207)	0 (0)	0 (0)	8,731 (4,301)	7,997 (2,034)	4,747 (1,489)	10,709 (2,423)	10,931 (2,827)	48,160 (7,000)
Angler hours		26,324 (6,518)	0 (0)	0 (0)	28,731 (4,587)	40,307 (6,027)	32,037 (3,743)	99,107 (8,236)	104,598 (13,792)	331,104 (19,285)
Angler trips		6,807 (1,769)	0 (0)	0 (0)	6,082 (1,005)	8,082 (1,192)	6,808 (863)	17,934 (1,914)	17,728 (2,590)	63,441 (4,084)
Angler days		6,328 (1,731)	0 (0)	0 (0)	5,549 (1,000)	7,443 (1,173)	6,102 (831)	16,540 (1,864)	15,825 (2,473)	57,787 (3,956)

Appendix 57. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Kalamazoo River in the vicinity of Allegan dam, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Chinook salmon	0.0333 (0.0182)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1,952 (1,059)	1,952 (1,059)
Rainbow trout	0.0723 (0.1253)	132 (75)	206 (505)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3,902 (7,322)	4,240 (7,340)
Brown trout	0.0003 (0.0006)	18 (36)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	18 (36)
White sucker	0.0006 (0.0015)	0 (0)	38 (92)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	38 (92)
Other	0.0208 (0.0324)	90 (180)	1,129 (1,887)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1,219 (1,896)
Total	0.1273 (0.1308)	240 (198)	1,373 (1,956)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5,854 (7,398)	7,467 (7,655)
Angler hours		3,680 (247)	3,210 (2,430)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	51,777 (3,511)	58,667 (4,277)
Angler trips		845 (112)	1,143 (855)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	16,931 (5,577)	18,919 (5,643)
Angler days		664 (111)	1,143 (855)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	16,931 (5,577)	18,738 (5,643)

Appendix 58. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Grand River (Sixth Street dam to Butterworth access), by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0013 (0.0026)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	105 (210)	0 (0)	105 (210)
Coho salmon	0.0126 (0.0133)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	483 (526)	536 (933)	1,019 (1,071)
Chinook salmon	0.0259 (0.0146)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	782 (628)	1,318 (989)	2,100 (1,172)
Rainbow trout	0.0658 (0.0231)	1,297 (597)	1,206 (1,119)	0 (0)	0 (0)	0 (0)	0 (0)	195 (230)	2,637 (1,279)	5,335 (1,816)
Brown trout	0.0021 (0.0042)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	171 (342)	0 (0)	171 (342)
White sucker	0.0028 (0.0035)	10 (20)	220 (283)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	230 (284)
Redhorse (spp)	0.0028 (0.0044)	61 (122)	163 (329)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	224 (351)
Walleye	0.0058 (0.0066)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	120 (171)	352 (504)	472 (532)
Other	0.0040 (0.0053)	0 (0)	150 (251)	0 (0)	0 (0)	0 (0)	0 (0)	171 (342)	0 (0)	321 (424)
Total	0.1231 (0.0334)	1,368 (610)	1,739 (1,226)	0 (0)	0 (0)	0 (0)	0 (0)	2,027 (1,015)	4,843 (1,934)	9,977 (2,578)
Angler hours		13,791 (1,143)	15,780 (4,853)	0 (0)	0 (0)	0 (0)	0 (0)	24,732 (1,786)	26,735 (4,142)	81,038 (6,723)
Angler trips		4,090 (508)	5,192 (1,750)	0 (0)	0 (0)	0 (0)	0 (0)	6,855 (1,052)	8,008 (1,579)	24,145 (2,631)
Angler days		3,350 (462)	4,387 (1,587)	0 (0)	0 (0)	0 (0)	0 (0)	6,407 (1,072)	7,677 (1,536)	21,821 (2,498)

Appendix 59. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Muskegon River (Croton dam to Newaygo), by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Chinook salmon	0.0395 (0.0348)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	360 (721)	2,507 (2,404)	2,867 (2,510)
Rainbow trout	0.0066 (0.0068)	55 (83)	425 (485)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	480 (492)
Yellow perch	0.0041 (0.0082)	0 (0)	299 (600)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	299 (600)
Total	0.0503 (0.0365)	55 (83)	724 (772)	0 (0)	0 (0)	0 (0)	0 (0)	360 (721)	2,507 (2,404)	3,646 (2,627)
Angler hours		7,252 (692)	20,194 (2,367)	0 (0)	0 (0)	0 (0)	0 (0)	10,884 (717)	34,180 (6,310)	72,510 (6,813)
Angler trips		2,317 (744)	5,552 (1,396)	0 (0)	0 (0)	0 (0)	0 (0)	2,518 (714)	7,932 (1,629)	18,319 (2,380)
Angler days		2,257 (748)	5,552 (1,396)	0 (0)	0 (0)	0 (0)	0 (0)	2,518 (714)	7,932 (1,629)	18,259 (2,382)

Appendix 60. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Manistee River (Tippy dam to Stronach), by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0013 (0.0026)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	350 (700)	0 (0)	350 (700)
Coho salmon	0.0005 (0.0010)	0 (0)	0 (0)	0 (0)	0 (0)	145 (304)	0 (0)	0 (0)	145 (304)
Chinook salmon	0.0785 (0.0303)	29 (45)	0 (0)	0 (0)	0 (0)	858 (1,094)	14,483 (6,228)	5,606 (4,810)	20,976 (7,945)
Rainbow trout	0.0310 (0.0109)	3,999 (1,525)	420 (496)	16 (35)	110 (80)	0 (0)	643 (737)	3,092 (2,254)	8,280 (2,864)
Brown trout	0.0015 (0.0019)	0 (0)	149 (40)	0 (0)	0 (0)	243 (499)	0 (0)	0 (0)	392 (501)
Northern pike	0.0014 (0.0012)	0 (0)	108 (70)	12 (25)	110 (80)	136 (286)	0 (0)	0 (0)	366 (306)
White sucker	0.0092 (0.0080)	1,961 (1,823)	0 (0)	504 (1,093)	0 (0)	0 (0)	0 (0)	0 (0)	2,465 (2,126)
Redhorse (spp)	0.0032 (0.0032)	846 (860)	0 (0)	22 (47)	0 (0)	0 (0)	0 (0)	0 (0)	868 (861)
Smallmouth bass	0.0035 (0.0031)	0 (0)	0 (0)	63 (104)	589 (580)	272 (572)	0 (0)	0 (0)	924 (821)
Yellow perch	0.0162 (0.0268)	4,316 (7,123)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4,316 (7,123)
Walleye	0.0001 (0.0002)	22 (45)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	22 (45)
Other	0.0035 (0.0071)	935 (1,890)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	935 (1,890)

Appendix 60. Continued:

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	3.1499 (0.0444)	12,108 (7,791)	677 (503)	617 (1,100)	809 (591)	1,654 (1,395)	15,476 (6,310)	8,698 (5,312)	40,039 (11,510)
Angler hours		55,109 (10,775)	6,124 (1,462)	2,426 (755)	8,865 (2,329)	22,507 (4,737)	116,533 (12,714)	55,595 (7,444)	267,159 (19,072)
Angler trips		10,547 (2,251)	1,582 (407)	753 (276)	2,648 (755)	5,228 (1,178)	20,675 (2,909)	13,246 (2,279)	54,679 (4,574)
Angler days		9,263 (1,961)	1,582 (407)	753 (276)	2,648 (755)	5,228 (1,178)	19,748 (2,986)	13,246 (2,279)	52,468 (4,489)

Appendix 61. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for Manistee Lake, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0080 (0.0099)	0 (0)	0 (0)	0 (0)	0 (0)	232 (475)	371 (568)	0 (0)	603 (740)
Chinook salmon	0.0828 (0.0514)	0 (0)	0 (0)	0 (0)	0 (0)	476 (436)	5,281 (3,668)	470 (657)	6,227 (3,752)
Rainbow trout	0.0070 (0.0089)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	526 (666)	526 (666)
Northern pike	0.0046 (0.0050)	0 (0)	0 (0)	0 (0)	0 (0)	345 (373)	0 (0)	0 (0)	345 (373)
White sucker	0.0042 (0.0079)	0 (0)	0 (0)	0 (0)	278 (582)	36 (75)	0 (0)	0 (0)	314 (587)
White bass	0.0057 (0.0115)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	431 (868)	0 (0)	431 (868)
Bluegill	0.0124 (0.0094)	0 (0)	73 (157)	0 (0)	321 (223)	535 (632)	0 (0)	0 (0)	929 (688)
Smallmouth bass	0.0029 (0.0048)	0 (0)	0 (0)	0 (0)	0 (0)	220 (366)	0 (0)	0 (0)	220 (366)
Black crappie	0.0010 (0.0022)	0 (0)	73 (157)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	73 (157)
Yellow perch	0.1608 (0.1422)	864 (1,757)	5,323 (7,043)	0 (0)	0 (0)	2,673 (4,012)	3,232 (6,508)	0 (0)	12,092 (10,542)
Total	0.2894 (0.1564)	864 (1,757)	5,469 (7,046)	0 (0)	599 (623)	4,517 (4,146)	9,315 (7,542)	996 (936)	21,760 (11,317)
Angler hours		294 (131)	4,680 (1,414)	0 (0)	3,727 (1,371)	15,833 (5,171)	43,645 (9,506)	7,020 (1,182)	75,199 (11,063)
Angler trips		107 (71)	1,534 (696)	0 (0)	1,110 (428)	3,991 (1,352)	8,531 (2,016)	1,462 (359)	16,735 (2,587)
Angler days		107 (71)	1,484 (692)	0 (0)	974 (415)	3,933 (1,338)	8,224 (1,952)	1,462 (359)	16,184 (2,527)

Appendix 62. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Betsie River shore fishery downstream from Homestead dam, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.0060 (0.0049)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	131 (174)	108 (84)	239 (193)
Chinook salmon	0.0728 (0.0343)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	910 (998)	1,990 (904)	2,900 (1,347)
Rainbow trout	0.0303 (0.0166)	100 (126)	0 (0)	0 (0)	0 (0)	0 (0)	399 (446)	708 (461)	1,207 (654)
Brown trout	0.0210 (0.0346)	670 (1,344)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	165 (297)	835 (1,376)
White sucker	0.0057 (0.0115)	226 (454)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	226 (454)
Total	0.1357 (0.0537)	996 (1,424)	0 (0)	0 (0)	0 (0)	0 (0)	1,440 (1,107)	2,971 (1,061)	5,407 (2,093)
Angler hours		4,386 (543)	0 (0)	0 (0)	0 (0)	0 (0)	16,116 (2,413)	19,351 (2,099)	39,853 (3,244)
Angler trips		983 (288)	0 (0)	0 (0)	0 (0)	0 (0)	3,792 (829)	4,661 (627)	9,436 (1,079)
Angler days		652 (231)	0 (0)	0 (0)	0 (0)	0 (0)	1,908 (507)	2,578 (396)	5,138 (684)

Appendix 63. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Platte River downstream of the upper Platte weir, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (15)	0 (0)	7 (15)
Coho salmon	0.1097 (0.0337)	30 (61)	0 (0)	0 (0)	0 (0)	0 (0)	2,733 (985)	877 (385)	3,640 (1,059)
Chinook salmon	0.0105 (0.0051)	0 (0)	16 (32)	0 (0)	0 (0)	0 (0)	153 (124)	181 (108)	350 (168)
Rainbow trout	0.0767 (0.0551)	671 (398)	47 (95)	0 (0)	0 (0)	0 (0)	1,224 (1,674)	603 (559)	2,545 (1,812)
Brown trout	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (15)	7 (15)
Northern pike	0.0046 (0.0093)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	153 (309)	0 (0)	153 (309)
White sucker	0.0106 (0.0148)	352 (491)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	352 (491)
Rock bass	0.0197 (0.0374)	0 (0)	40 (82)	0 (0)	0 (0)	0 (0)	613 (1,236)	0 (0)	653 (1,239)
Smallmouth bass	0.0025 (0.0052)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	84 (174)	84 (174)
Total	0.2347 (0.0792)	1,053 (635)	103 (130)	0 (0)	0 (0)	0 (0)	4,883 (2,326)	1,752 (709)	7,791 (2,517)
Angler hours		7,291 (986)	791 (244)	0 (0)	0 (0)	0 (0)	16,728 (2,604)	8,383 (1,637)	33,193 (3,239)
Angler trips		2,251 (426)	344 (128)	0 (0)	0 (0)	0 (0)	3,995 (708)	2,183 (488)	8,773 (968)
Angler days		1,121 (247)	186 (99)	0 (0)	0 (0)	0 (0)	3,146 (635)	1,891 (475)	6,344 (836)

Appendix 64. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Bear River shore fishery downstream from the Petoskey dam, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0103 (0.0210)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	159 (324)	0 (0)	159 (324)
Chinook salmon	0.0694 (0.0407)	0 (0)	0 (0)	0 (0)	0 (0)	179 (366)	897 (490)	0 (0)	1,076 (612)
Rainbow trout	0.0550 (0.0512)	141 (111)	112 (96)	43 (90)	135 (183)	357 (732)	65 (133)	0 (0)	853 (785)
Brown trout	0.0010 (0.0020)	15 (30)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	15 (30)
Brook trout	0.0205 (0.0322)	7 (15)	229 (466)	81 (169)	0 (0)	0 (0)	0 (0)	0 (0)	317 (496)
Rock bass	0.0695 (0.1516)	0 (0)	0 (0)	1,078 (2,346)	0 (0)	0 (0)	0 (0)	0 (0)	1,078 (2,346)
Smallmouth bass	0.0046 (0.0055)	0 (0)	71 (85)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	71 (85)
Other	0.0094 (0.0168)	0 (0)	29 (59)	116 (251)	0 (0)	0 (0)	0 (0)	0 (0)	145 (258)
Total	0.2396 (0.1730)	163 (116)	441 (487)	1,318 (2,367)	135 (183)	536 (818)	1,121 (602)	0 (0)	3,714 (2,630)
Angler hours		1,387 (405)	2,461 (604)	1,341 (709)	2,498 (644)	2,707 (901)	5,106 (1,572)	1,738 (651)	15,500 (2,175)
Angler trips		251 (83)	574 (163)	480 (287)	673 (207)	1,017 (343)	1,958 (628)	0 (0)	4,953 (819)
Angler days		251 (83)	574 (163)	480 (287)	673 (207)	1,017 (343)	1,958 (628)	0 (0)	4,953 (819)

Appendix 65. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Saginaw River, by all modes of sportfishing, 1987.
Two standard errors in parentheses.

Species	Total catch per hour	Month							Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	
Black bullhead	0.0011 (0.0023)	99 (203)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	99 (203)
Brown bullhead	0.0160 (0.0291)	12 (24)	1,473 (2,594)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1,485 (2,594)
Channel catfish	0.0116 (0.0216)	23 (33)	1,050 (1,929)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1,073 (1,929)
Largemouth bass	0.0547 (0.0863)	0 (0)	5,084 (7,611)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	5,084 (7,611)
White crappie	0.0116 (0.0274)	0 (0)	1,081 (2,495)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1,081 (2,495)
Yellow perch	0.2252 (0.4085)	19,765 (36,401)	1,153 (2,404)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	20,918 (36,480)
Freshwater drum	0.0269 (0.0400)	0 (0)	2,499 (3,502)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2,499 (3,502)
Other	0.0001 (0.0002)	12 (24)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	12 (24)
Total	0.3472 (0.4409)	19,911 (36,402)	12,340 (9,625)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	32,251 (37,653)
Angler hours		27,961 (8,598)	64,916 (45,587)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	92,877 (46,391)
Angler trips		6,725 (1,910)	17,122 (8,713)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	23,847 (8,920)
Angler days		6,725 (1,910)	17,122 (8,713)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	23,847 (8,920)

Appendix 66. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Tittabawassee River, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month									Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Northern pike	0.0016 (0.0015)	0 (0)	262 (286)	0 (0)	0 (0)	0 (0)	0 (0)	34 (70)	22 (36)	3 (7)	321 (297)
White sucker	0.0003 (0.0006)	7 (14)	60 (123)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	67 (124)
Yellow bullhead	0.0012 (0.0019)	219 (367)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	22 (44)	0 (0)	0 (0)	241 (370)
Brown bullhead	0.0073 (0.0105)	1,350 (2,064)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	109 (222)	0 (0)	0 (0)	1,459 (2,076)
Channel catfish	0.0008 (0.0009)	41 (83)	27 (57)	0 (0)	0 (0)	0 (0)	0 (0)	96 (140)	0 (0)	0 (0)	164 (172)
White perch	0.0005 (0.0008)	0 (0)	96 (153)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	96 (153)
White bass	0.1048 (0.0502)	407 (350)	20,478 (9,241)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	20,885 (9,248)
Rock bass	0.0011 (0.0015)	0 (0)	206 (286)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	12 (25)	0 (0)	218 (287)
Pumpkinseed	0.0009 (0.0016)	0 (0)	181 (322)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	181 (322)
Smallmouth bass	0.0001 (0.0002)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	19 (39)	5 (11)	0 (0)	24 (41)
White crappie	0.0002 (0.0004)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	33 (67)	0 (0)	0 (0)	33 (67)
Black crappie	0.0189 (0.0152)	0 (0)	1,304 (1,626)	0 (0)	0 (0)	0 (0)	0 (0)	2,128 (2,425)	343 (507)	0 (0)	3,775 (2,963)
Yellow perch	0.0100 (0.0074)	793 (1,191)	237 (266)	0 (0)	0 (0)	0 (0)	0 (0)	563 (562)	394 (504)	0 (0)	1,987 (1,435)
Walleye	0.1076 (0.0304)	5,502 (2,174)	3,100 (1,590)	0 (0)	0 (0)	0 (0)	0 (0)	7,527 (2,747)	5,061 (2,561)	238 (190)	21,428 (4,625)
Freshwater drum	0.0081 (0.0069)	94 (192)	1,474 (1,334)	0 (0)	0 (0)	0 (0)	0 (0)	46 (94)	0 (0)	0 (0)	1,614 (1,351)

Appendix 66. Continued:

Species	Total catch per hour	Month									Season total
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Total	0.2635 (0.0738)	8,413 (3,272)	27,425 (9,630)	0 (0)	0 (0)	0 (0)	0 (0)	10,577 (3,719)	5,837 (2,659)	241 (190)	52,493 (11,153)
Angler hours		48,292 (13,015)	84,954 (30,936)	0 (0)	0 (0)	0 (0)	0 (0)	47,304 (13,047)	15,873 (4,894)	2,805 (1,747)	199,228 (36,382)
Angler trips		10,839 (2,683)	21,428 (6,532)	0 (0)	0 (0)	0 (0)	0 (0)	9,915 (2,710)	4,140 (1,227)	743 (458)	47,065 (7,676)
Angler days		10,777 (2,666)	21,278 (6,491)	0 (0)	0 (0)	0 (0)	0 (0)	9,876 (2,703)	4,127 (1,226)	707 (437)	46,765 (7,632)

Appendix 67. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Au Sable River downstream from Foote dam, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month								Season total	
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct		
Pink salmon	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (7)	3 (7)
Coho salmon	<0.0001 (<0.0001)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (7)	0 (0)	0 (0)	4 (0)	4 (7)
Chinook salmon	0.0499 (0.0114)	116 (116)	75 (67)	9 (17)	0 (0)	199 (169)	766 (324)	2,294 (992)	3,957 (1,286)	7,416 (1,670)	
Rainbow trout	0.0342 (0.0061)	555 (308)	2,636 (637)	472 (276)	0 (0)	143 (134)	58 (96)	0 (0)	1,217 (446)	5,081 (896)	
Brown trout	0.0010 (0.0008)	34 (51)	55 (68)	0 (0)	0 (0)	0 (0)	5 (9)	0 (0)	59 (97)	153 (129)	
Lake trout	0.0001 (0.0002)	0 (0)	0 (0)	9 (17)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	9 (17)	
Northern pike	0.0005 (0.0005)	0 (0)	0 (0)	0 (0)	24 (39)	51 (60)	0 (0)	0 (0)	0 (0)	75 (72)	
Redhorse (spp)	0.0005 (0.0010)	0 (0)	68 (135)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	68 (135)	
Channel catfish	0.0602 (0.0161)	0 (0)	0 (0)	450 (380)	2,344 (1,177)	3,430 (1,383)	1,558 (1,202)	1,118 (868)	52 (105)	8,952 (2,377)	
Smallmouth bass	0.0007 (0.0011)	0 (0)	0 (0)	0 (0)	13 (20)	0 (0)	89 (164)	0 (0)	0 (0)	102 (165)	
Yellow perch	0.0005 (0.0007)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	48 (96)	30 (61)	0 (0)	78 (114)	
Walleye	0.0054 (0.0019)	0 (0)	0 (0)	315 (165)	289 (188)	194 (138)	12 (19)	0 (0)	0 (0)	810 (286)	
Freshwater drum	0.0019 (0.0014)	0 (0)	0 (0)	0 (0)	17 (34)	153 (182)	38 (58)	73 (84)	0 (0)	281 (211)	
Burbot	0.0001 (0.0001)	9 (17)	0 (0)	9 (18)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	18 (25)	
Other	0.0012 (0.0014)	7 (14)	0 (0)	157 (206)	0 (0)	0 (0)	12 (24)	0 (0)	0 (0)	176 (208)	

Appendix 67. Continued:

Species	Total catch per hour	Month								Season total
		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	
Total	0.1563 (0.0214)	721 (334)	2,834 (658)	1,421 (540)	2,687 (1,193)	4,170 (1,419)	2,590 (1,265)	3,515 (1,322)	5,288 (1,369)	23,226 (3,081)
Angler hours		9,017 (934)	26,254 (1,961)	14,205 (1,335)	11,864 (1,245)	17,462 (1,448)	16,325 (1,461)	32,062 (3,339)	21,435 (1,634)	148,624 (5,109)
Angler trips		2,601 (345)	6,418 (573)	4,121 (444)	3,244 (433)	4,547 (492)	4,397 (483)	8,245 (1,122)	4,949 (462)	38,522 (1,667)
Angler days		2,149 (325)	5,214 (530)	3,659 (434)	2,992 (432)	4,229 (493)	4,171 (483)	6,995 (1,023)	4,190 (455)	33,599 (1,578)

Appendix 68. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the St. Marys River boat fishery from the Neebish Island Ferry to Raber Bay, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Brown trout	0.0009 (0.0019)	0 (0)	0 (0)	0 (0)	230 (477)	0 (0)	0 (0)	230 (477)
Northern pike	0.0167 (0.0228)	3,105 (5,223)	362 (791)	609 (841)	0 (0)	0 (0)	0 (0)	4,076 (5,349)
Redhorse (spp)	0.0040 (0.0091)	976 (2,201)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	976 (2,201)
Black bullhead	0.0342 (0.0670)	1,085 (2,445)	7,244 (15,816)	0 (0)	0 (0)	0 (0)	0 (0)	8,329 (16,004)
Channel catfish	0.0009 (0.0017)	0 (0)	181 (395)	0 (0)	40 (83)	0 (0)	0 (0)	221 (404)
Pumpkinseed	0.0089 (0.0159)	2,169 (3,779)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2,169 (3,779)
Bluegill	0.0053 (0.0087)	0 (0)	0 (0)	0 (0)	1,289 (2,049)	0 (0)	0 (0)	1,289 (2,049)
Smallmouth bass	0.0019 (0.0040)	0 (0)	0 (0)	0 (0)	460 (954)	0 (0)	0 (0)	460 (954)
Largemouth bass	0.0017 (0.0035)	0 (0)	0 (0)	411 (838)	0 (0)	0 (0)	0 (0)	411 (838)
Yellow perch	0.3332 (0.2520)	20,701 (34,599)	16,980 (25,361)	14,178 (13,529)	29,274 (28,063)	0 (0)	0 (0)	81,133 (53,017)
Walleye	0.0638 (0.1079)	15,070 (25,563)	0 (0)	0 (0)	460 (954)	0 (0)	0 (0)	15,530 (25,581)
Lake herring	0.3646 (0.2079)	0 (0)	3,622 (7,908)	85,163 (36,849)	0 (0)	0 (0)	0 (0)	88,785 (37,688)

Appendix 68. Continued:

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Total	0.8362 (0.4347)	43,106 (43,623)	28,389 (30,930)	100,361 (39,272)	31,753 (28,174)	0 (0)	0 (0)	203,609 (72,081)
Angler hours		132,198 (87,831)	42,107 (20,618)	39,598 (14,574)	29,594 (15,583)	19,915 (10,330)	6,349 (3,045)	243,497 (92,707)
Angler trips		43,290 (29,356)	6,897 (4,535)	6,699 (2,497)	4,667 (2,581)	0 (0)	0 (0)	61,553 (29,921)
Angler days		34,606 (24,325)	6,897 (4,535)	6,630 (2,470)	4,667 (2,581)	0 (0)	0 (0)	52,800 (25,001)

Appendix 69. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the St. Marys River boat fishery from Lake George, Little Lake George and in the vicinity of Sugar Island, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Northern pike	0.0779 (0.1046)	1,679 (2,866)	314 (487)	0 (0)	0 (0)	0 (0)	419 (908)	2,412 (3,046)
Brown bullhead	0.0163 (0.0268)	322 (686)	184 (407)	0 (0)	0 (0)	0 (0)	0 (0)	506 (798)
Channel catfish	0.0111 (0.0178)	161 (343)	184 (407)	0 (0)	0 (0)	0 (0)	0 (0)	345 (532)
Yellow perch	0.0189 (0.0302)	47 (99)	368 (814)	0 (0)	0 (0)	0 (0)	170 (360)	585 (896)
Walleye	0.0063 (0.0140)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	195 (424)	195 (424)
Other	0.0110 (0.0238)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	340 (719)	340 (719)
Total	0.1416 (0.1279)	2,209 (2,969)	1,050 (1,110)	0 (0)	0 (0)	0 (0)	1,124 (1,285)	4,383 (3,420)
Angler hours		10,888 (6,581)	17,575 (12,349)	0 (0)	28,822 (7,814)	23,619 (8,197)	2,486 (1,413)	30,949 (14,064)
Angler trips		3,036 (2,806)	3,199 (2,148)	0 (0)	0 (0)	0 (0)	888 (596)	7,123 (3,584)
Angler days		2,611 (2,721)	3,199 (2,148)	0 (0)	0 (0)	0 (0)	888 (596)	6,698 (3,518)

Appendix 70. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the St. Marys River from the rapids in Sault Ste. Marie to the Neebish Island Ferry, by all modes of sportfishing, 1987. Two standard errors in parentheses.

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Pink salmon	0.0107 (0.0078)	0 (0)	12 (24)	0 (0)	124 (161)	1,409 (1,082)	0 (0)	1,545 (1,094)
Coho salmon	0.0005 (0.0006)	36 (55)	11 (15)	0 (0)	32 (66)	0 (0)	0 (0)	79 (87)
Chinook salmon	0.0252 (0.0120)	0 (0)	0 (0)	138 (280)	1,467 (1,053)	1,909 (1,141)	108 (131)	3,622 (1,583)
Rainbow trout	0.0138 (0.0080)	891 (966)	297 (206)	637 (413)	141 (223)	0 (0)	24 (51)	1,990 (1,095)
Atlantic salmon	<0.0001 (<0.0001)	0 (0)	6 (12)	0 (0)	0 (0)	0 (0)	0 (0)	6 (12)
Brown trout	0.0021 (0.0022)	23 (48)	85 (79)	200 (297)	0 (0)	0 (0)	0 (0)	308 (311)
Lake trout	0.0014 (0.0028)	0 (0)	0 (0)	203 (411)	0 (0)	0 (0)	0 (0)	203 (411)
Rainbow smelt	0.0005 (0.0008)	0 (0)	66 (111)	0 (0)	0 (0)	0 (0)	0 (0)	66 (111)
Northern pike	0.0024 (0.0017)	6 (11)	197 (196)	0 (0)	56 (117)	0 (0)	90 (86)	349 (244)
White sucker	0.0018 (0.0022)	0 (0)	61 (102)	0 (0)	0 (0)	0 (0)	193 (295)	254 (312)
Redhorse (spp)	0.0004 (0.0006)	0 (0)	61 (93)	0 (0)	0 (0)	0 (0)	0 (0)	61 (93)
Black bullhead	0.0021 (0.0036)	0 (0)	62 (123)	0 (0)	239 (498)	0 (0)	0 (0)	301 (513)
Brown bullhead	0.0011 (0.0023)	155 (320)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	155 (320)
Channel catfish	0.0111 (0.0103)	0 (0)	0 (0)	0 (0)	385 (436)	1,205 (1,390)	5 (10)	1,595 (1,457)
White bass	0.0002 (0.0004)	22 (46)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	22 (46)
Rock bass	0.0051 (0.0053)	22 (46)	29 (60)	168 (245)	424 (697)	71 (149)	21 (31)	735 (758)

Appendix 70. Continued:

Species	Total catch per hour	Month						Season total
		May	Jun	Jul	Aug	Sep	Oct	
Green sunfish	0.0004 (0.0008)	0 (0)	0 (0)	0 (0)	53 (111)	0 (0)	0 (0)	53 (111)
Bluegill	0.0032 (0.0032)	8 (16)	21 (41)	138 (212)	281 (391)	0 (0)	7 (14)	455 (447)
Yellow perch	0.1014 (0.0752)	731 (688)	491 (940)	159 (201)	1,192 (1,192)	8,460 (10,107)	3,546 (2,191)	14,579 (10,477)
Walleye	0.0236 (0.0130)	11 (22)	233 (244)	257 (242)	2,016 (1,436)	426 (469)	449 (833)	3,392 (1,759)
Lake whitefish	0.1473 (0.0508)	5,059 (3,854)	9,561 (4,041)	5,773 (2,551)	391 (427)	163 (341)	227 (194)	21,174 (6,167)
Round whitefish	0.0042 (0.0036)	104 (226)	397 (390)	102 (214)	0 (0)	0 (0)	0 (0)	603 (499)
Other	0.0011 (0.0013)	0 (0)	106 (149)	51 (107)	0 (0)	0 (0)	0 (0)	157 (183)
Total	0.3596 (0.1103)	7,068 (4,053)	11,696 (4,194)	7,826 (2,697)	6,801 (2,441)	13,643 (10,340)	4,670 (2,376)	51,704 (12,642)
Angler hours		15,883 (7,754)	16,469 (4,600)	28,465 (6,779)	43,199 (18,632)	35,780 (15,161)	3,987 (1,836)	143,783 (26,601)
Angler trips		4,377 (2,306)	6,172 (1,801)	8,266 (1,991)	9,739 (3,774)	8,253 (3,618)	922 (428)	37,729 (6,328)
Angler days		3,164 (1,644)	5,906 (1,761)	8,266 (1,991)	9,739 (3,774)	8,253 (3,618)	922 (428)	36,250 (6,106)

SECTION VI.

Winter Catch and Effort Estimates by Site

Appendix 71. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Keweenaw Bay ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month		Season total
		Feb	Mar	
Coho salmon	0.0746 (0.0295)	3,401 (1,890)	2,209 (823)	5,610 (2,061)
Chinook salmon	0.0038 (0.0030)	0 (0)	286 (225)	286 (225)
Rainbow trout	0.0029 (0.0027)	0 (0)	221 (200)	221 (200)
Brown trout	0.0019 (0.0019)	36 (73)	104 (117)	140 (138)
Lake trout	0.1143 (0.0350)	4,439 (2,061)	4,157 (1,035)	8,596 (2,306)
Splake	0.0003 (0.0006)	0 (0)	19 (40)	19 (40)
Rainbow smelt	0.0078 (0.0087)	0 (0)	585 (647)	585 (647)
Yellow perch	0.0274 (0.0249)	1,724 (1,826)	338 (318)	2,062 (1,853)
Lake whitefish	0.0652 (0.0481)	4,590 (3,534)	312 (268)	4,902 (3,544)
Round whitefish	0.0031 (0.0034)	63 (128)	169 (214)	232 (249)
Burbot	0.0009 (0.0013)	41 (86)	28 (56)	69 (103)
Other	0.0073 (0.0059)	180 (269)	370 (344)	550 (437)
Total	0.3095 (0.0820)	14,474 (4,873)	8,798 (1,617)	23,272 (5,134)
Angler hours		40,034 (9,470)	35,170 (5,683)	75,204 (11,044)
Angler trips		12,239 (2,996)	9,945 (1,670)	22,184 (3,430)
Angler days		12,239 (2,996)	9,915 (1,667)	22,154 (3,429)

Appendix 72. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Huron Bay ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month		Season total
		Feb	Mar	
Lake trout	0.0384 (0.0463)	185 (208)	0 (0)	185 (208)
Yellow perch	0.0530 (0.1121)	255 (528)	0 (0)	255 (528)
Lake whitefish	0.0881 (0.1319)	424 (608)	0 (0)	424 (608)
Round whitefish	0.0706 (0.1493)	340 (704)	0 (0)	340 (704)
Total	0.2502 (0.2510)	1,204 (1,090)	0 (0)	1,204 (1,090)
Angler hours		4,813 (2,079)	0 (0)	4,813 (2,079)
Angler trips		1,710 (727)	0 (0)	1,710 (727)
Angler days		1,710 (727)	0 (0)	1,710 (727)

Appendix 73. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Munising ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month		Season total
		Feb	Mar	
Coho salmon	0.1730 (0.0728)	1,168 (1,110)	5,722 (2,567)	6,890 (2,797)
Chinook salmon	0.0019 (0.0038)	0 (0)	76 (153)	76 (153)
Lake trout	0.0157 (0.0095)	236 (245)	390 (282)	626 (374)
Splake	0.0155 (0.0086)	509 (307)	108 (136)	617 (336)
Rainbow smelt	0.0892 (0.0740)	0 (0)	3,553 (2,919)	3,553 (2,919)
Yellow perch	0.0341 (0.0345)	989 (1,269)	368 (497)	1,357 (1,363)
Lake whitefish	0.1483 (0.0568)	4,646 (1,934)	1,260 (967)	5,906 (2,162)
Round whitefish	0.0133 (0.0234)	62 (111)	466 (920)	528 (927)
Burbot	0.0006 (0.0012)	0 (0)	25 (51)	25 (51)
Other	0.0041 (0.0062)	163 (247)	0 (0)	163 (247)
Total	0.4958 (0.1351)	7,773 (2,610)	11,968 (4,155)	19,741 (4,907)
Angler hours		18,305 (2,479)	21,512 (3,693)	39,817 (4,448)
Angler trips		4,220 (608)	4,797 (818)	9,017 (1,019)
Angler days		4,199 (608)	4,363 (812)	8,862 (1,014)

Appendix 74. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Little Bay de Noc ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Rainbow smelt	0.0002 (0.0004)	0 (0)	0 (0)	29 (61)	29 (61)
Northern pike	0.0076 (0.0049)	569 (427)	439 (456)	0 (0)	1,008 (625)
White perch	0.0085 (0.0177)	0 (0)	1,127 (2,341)	0 (0)	1,127 (2,341)
Black crappie	0.0005 (0.0010)	65 (131)	0 (0)	0 (0)	65 (131)
Yellow perch	0.4905 (0.1909)	14,683 (5,513)	44,457 (21,045)	6,150 (4,111)	65,290 (22,140)
Walleye	0.0886 (0.0512)	469 (352)	3,487 (2,056)	7,842 (6,088)	11,798 (6,435)
Burbot	0.0002 (0.0004)	28 (57)	0 (0)	0 (0)	28 (57)
Total	0.5961 (0.2080)	15,814 (5,543)	49,510 (21,279)	14,021 (7,346)	79,345 (23,184)
Angler hours		22,989 (6,025)	69,092 (20,231)	41,026 (14,132)	133,107 (25,403)
Angler trips		6,974 (1,926)	20,248 (6,066)	12,882 (4,451)	40,104 (7,766)
Angler days		5,669 (1,567)	16,165 (4,981)	9,101 (3,417)	30,935 (6,240)

Appendix 75. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Big Bay de Noc ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month		Season total
		Jan	Feb	
Rainbow smelt	0.0022 (0.0046)	72 (150)	0 (0)	72 (150)
Northern pike	0.0015 (0.0031)	48 (99)	0 (0)	48 (99)
Yellow perch	1.8602 (0.8227)	33,792 (20,973)	26,885 (11,139)	60,677 (23,748)
Total	1.8639 (0.8231)	33,912 (20,974)	26,885 (11,139)	60,797 (23,748)
Angler hours		14,171 (4,799)	18,448 (4,702)	32,619 (6,719)
Angler trips		3,354 (1,182)	4,085 (1,276)	7,439 (1,739)
Angler days		3,354 (1,182)	4,085 (1,276)	7,439 (1,739)

Appendix 76. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Les Cheneaux Island ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Northern pike	0.0037 (0.0055)	12 (19)	0 (0)	23 (47)	35 (51)
White perch	0.0015 (0.0034)	14 (32)	0 (0)	0 (0)	14 (32)
Yellow perch	0.8139 (0.4135)	3,391 (2,440)	2,725 (2,001)	1,659 (1,577)	7,775 (3,528)
Burbot	0.0059 (0.0122)	0 (0)	0 (0)	56 (115)	56 (115)
Total	0.8249 (0.4149)	3,417 (2,440)	2,725 (2,001)	1,738 (1,582)	7,880 (3,530)
Angler hours		2,735 (1,313)	3,926 (1,343)	2,892 (1,115)	9,553 (2,184)
Angler trips		673 (343)	966 (391)	825 (357)	2,464 (631)
Angler days		624 (324)	966 (391)	822 (357)	2,412 (621)

Appendix 77. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Munuscong Bay ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Northern pike	0.0125 (0.0121)	274 (225)	289 (514)	35 (74)	598 (566)
Yellow perch	0.0510 (0.0381)	341 (335)	1,505 (1,582)	591 (689)	2,437 (1,758)
Walleye	0.1130 (0.0944)	673 (474)	2,807 (3,747)	1,920 (2,241)	5,400 (4,392)
Burbot	0.0007 (0.0015)	0 (0)	0 (0)	33 (70)	33 (70)
Other	0.0021 (0.0043)	0 (0)	101 (207)	0 (0)	101 (207)
Total	0.1793 (0.1055)	1,288 (623)	4,702 (4,105)	2,579 (2,347)	8,569 (4,769)
Angler hours		15,364 (4,313)	17,218 (4,962)	15,221 (6,354)	47,803 (9,143)
Angler trips		3,973 (1,205)	5,282 (1,541)	4,742 (2,399)	13,997 (3,095)
Angler days		3,917 (1,202)	5,282 (1,541)	4,742 (2,399)	13,941 (3,094)

Appendix 78. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Port Austin to Sand Point ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
White crappie	0.0153 (0.0343)	0 (0)	0 (0)	116 (255)	116 (255)
Yellow perch	1.6984 (1.1786)	0 (0)	10,272 (5,992)	2,644 (3,262)	12,916 (6,822)
Walleye	0.0011 (0.0027)	0 (0)	0 (0)	8 (19)	8 (19)
Total	1.7147 (1.1839)	0 (0)	10,272 (5,992)	2,768 (3,272)	13,040 (6,827)
Angler hours		0 (0)	5,444 (2,689)	2,161 (2,118)	7,605 (3,423)
Angler trips		0 (0)	1,593 (863)	663 (637)	2,256 (1,073)
Angler days		0 (0)	1,439 (756)	532 (519)	1,971 (917)

Appendix 79. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Sand Point to Sebewaing ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Northern pike	0.0085 (0.0118)	776 (1,067)	0 (0)	0 (0)	776 (1,067)
White perch	0.0029 (0.0059)	0 (0)	266 (536)	0 (0)	266 (536)
Rock bass	0.0004 (0.0008)	40 (81)	0 (0)	0 (0)	40 (81)
Bluegill	0.0002 (0.0004)	20 (41)	0 (0)	0 (0)	20 (41)
White crappie	0.0017 (0.0037)	157 (336)	0 (0)	0 (0)	157 (336)
Black crappie	0.0324 (0.0668)	2,954 (6,058)	0 (0)	0 (0)	2,954 (6,058)
Yellow perch	3.6925 (1.4421)	143,649 (58,565)	101,002 (34,487)	92,072 (89,704)	336,723 (112,543)
Total	3.7387 (1.4486)	147,596 (58,888)	101,268 (34,491)	92,072 (89,704)	340,936 (112,713)
Angler hours		46,261 (15,187)	30,678 (7,258)	14,253 (7,496)	91,192 (18,426)
Angler trips		11,140 (3,788)	6,320 (1,590)	3,769 (2,068)	21,229 (4,599)
Angler days		10,682 (3,622)	6,320 (1,590)	3,238 (1,802)	20,240 (4,347)

Appendix 80. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Sebawaing to Essexville ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
White crappie	0.0028 (0.0042)	24 (49)	0 (0)	20 (44)	44 (66)
Yellow perch	2.7219 (1.3203)	26,119 (16,291)	8,949 (5,735)	8,480 (7,026)	43,548 (18,645)
Total	2.7247 (1.3206)	26,143 (16,291)	8,949 (5,735)	8,500 (7,026)	43,592 (18,645)
Angler hours		8,589 (2,659)	4,979 (1,403)	2,431 (2,064)	15,999 (3,647)
Angler trips		2,929 (887)	1,516 (436)	1,215 (1,121)	5,660 (1,494)
Angler days		2,336 (703)	1,298 (384)	800 (714)	4,434 (1,073)

Appendix 81. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Essexville to the mouth of the Saginaw River ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Pumpkinseed	0.0007 (0.0011)	0 (0)	2 (3)	0 (0)	2 (3)
White crappie	0.0058 (0.0099)	0 (0)	16 (26)	0 (0)	16 (26)
Yellow perch	2.3828 (2.0002)	5,750 (4,644)	667 (708)	0 (0)	6,417 (4,698)
Other	0.0004 (0.0008)	0 (0)	1 (2)	0 (0)	1 (2)
Total	2.3899 (2.0017)	5,750 (4,644)	686 (708)	0 (0)	6,436 (4,698)
Angler hours		2,247 (1,052)	446 (341)	0 (0)	2,693 (1,106)
Angler trips		1,179 (550)	247 (193)	0 (0)	1,426 (583)
Angler days		1,094 (521)	231 (182)	0 (0)	1,325 (552)

Appendix 82. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Bay City to Saganing Creek ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Rainbow trout	<0.0001 (<0.0001)	0 (0)	0 (0)	3 (8)	3 (8)
Northern pike	0.0011 (0.0019)	66 (112)	0 (0)	0 (0)	66 (112)
White sucker	0.0032 (0.0074)	0 (0)	0 (0)	192 (437)	192 (437)
White crappie	0.0002 (0.0005)	0 (0)	0 (0)	13 (33)	13 (33)
Black crappie	0.0014 (0.0035)	0 (0)	0 (0)	85 (210)	85 (210)
Yellow perch	1.9977 (1.1092)	40,960 (33,168)	41,936 (19,747)	37,341 (38,882)	120,237 (54,789)
Walleye	0.0765 (0.0805)	645 (606)	3,398 (4,528)	559 (661)	4,602 (4,616)
Lake whitefish	0.0004 (0.0008)	22 (46)	0 (0)	0 (0)	22 (46)
Total	2.0805 (1.1271)	41,693 (33,174)	45,334 (20,259)	38,193 (38,891)	125,220 (54,986)
Angler hours		25,458 (16,162)	25,799 (6,564)	8,931 (7,767)	60,188 (19,095)
Angler trips		6,458 (4,318)	6,469 (1,636)	2,324 (2,027)	15,251 (5,043)
Angler days		6,236 (4,178)	6,146 (1,563)	2,230 (1,946)	14,612 (4,867)

Appendix 83. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Au Gres ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
White sucker	0.0164 (0.0180)	0 (0)	0 (0)	886 (956)	886 (956)
Yellow perch	2.1390 (0.7716)	57,830 (26,042)	32,046 (16,591)	25,895 (18,135)	115,771 (35,810)
Walleye	0.0009 (0.0014)	0 (0)	0 (0)	48 (76)	48 (76)
Total	2.1563 (0.7734)	57,830 (26,042)	32,046 (16,591)	26,829 (18,160)	116,705 (35,822)
Angler hours		27,519 (5,983)	13,512 (3,688)	13,093 (7,176)	54,124 (10,045)
Angler trips		9,194 (1,966)	3,908 (1,126)	4,150 (2,327)	17,252 (3,248)
Angler days		9,068 (1,964)	3,908 (1,126)	4,150 (2,327)	17,126 (3,247)

Appendix 84. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Tawas ice fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Northern pike	0.0074 (0.0180)	352 (852)	0 (0)	0 (0)	352 (852)
Yellow perch	0.8408 (0.5409)	25,556 (17,530)	9,011 (15,170)	5,544 (6,376)	40,111 (24,043)
Total	0.8482 (0.5418)	25,908 (17,551)	9,011 (15,170)	5,544 (6,376)	40,463 (24,059)
Angler hours		23,729 (8,915)	18,869 (6,326)	5,106 (2,143)	47,704 (11,139)
Angler trips		8,198 (3,189)	5,578 (1,910)	1,266 (505)	15,042 (3,751)
Angler days		8,198 (3,189)	5,578 (1,910)	1,143 (490)	14,919 (3,749)

Appendix 85. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Lake Erie ice fishery from Pointe Mouillee to the Raisin River, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Yellow perch	2.7316 (2.3478)	159,647 (175,149)	66,189 (45,342)	0 (0)	225,836 (180,923)
Walleye	0.0004 (0.0006)	0 (0)	35 (48)	0 (0)	35 (48)
Total	2.7321 (2.3479)	159,647 (175,149)	66,224 (45,342)	0 (0)	225,871 (180,923)
Angler hours		50,547 (22,217)	32,127 (12,998)	0 (0)	82,674 (25,740)
Angler trips		16,703 (7,243)	8,728 (3,627)	0 (0)	25,431 (8,100)
Angler days		16,703 (7,243)	8,728 (3,627)	0 (0)	25,431 (8,100)

Appendix 86. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Lake Erie ice fishery from the mouth of the Raisin River to the Michigan-Ohio state line, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month		Season total
		Jan	Feb	
Yellow perch	0.1405 (0.3625)	386 (857)	0 (0)	386 (857)
Total	0.1405 (0.3625)	386 (857)	0 (0)	386 (857)
Angler hours		2,748 (3,612)	2,305 (1,956)	2,748 (3,612)
Angler trips		4,237 (7,098)	0 (0)	4,237 (7,098)
Angler days		4,237 (7,098)	0 (0)	4,237 (7,098)

Appendix 87. Estimated catch per hour, number caught, and effort (angler hours, trips, and days) for the Tittabawassee-Saginaw River winter fishery, 1988. Two standard errors in parentheses.

Species	Total catch per hour	Month			Season total
		Jan	Feb	Mar	
Rainbow trout	0.0004 (0.0009)	0 (0)	45 (102)	0 (0)	45 (102)
Yellow perch	0.0558 (0.0691)	1,567 (2,422)	3,463 (6,324)	982 (2,326)	6,012 (7,160)
Walleye	0.0764 (0.0541)	1,218 (907)	4,508 (4,087)	2,500 (2,912)	8,226 (5,100)
Total	0.1327 (0.0934)	2,785 (2,586)	8,016 (7,530)	3,482 (3,727)	14,283 (8,791)
Angler hours		52,077 (23,085)	41,334 (24,212)	14,261 (15,153)	107,672 (36,725)
Angler trips		15,826 (6,933)	10,882 (6,641)	6,269 (6,577)	32,977 (11,637)
Angler days		15,296 (6,709)	10,110 (6,264)	5,522 (5,779)	30,928 (10,846)