88–9b

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

Number 88–9b
October 7, 1988

Michigan Department of
Natural Resources

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
FISHERIES DIVISION

Fisheries Technical Report No. 88-9b

October 7, 1988

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)[1]

Gerald P. Rakoczy

and

Richard D. Rogers

---

[1]Contribution 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	6,951	1,068	300	0	0	84	0	8,403
	(0.0167)	(5,538)	(1,541)	(637)	(0)	(0)	(146)	(0)	(5,785)
Chinook salmon	0.0250	1,521	959	300	1,352	2,767	2,347	0	9,246
	(0.0154)	(1,133)	(1,494)	(637)	(2,072)	(3,996)	(1,633)	(0)	(5,182)
Rainbow trout	0.0038	0	107	300	328	20	240	420	1,415
	(0.0030)	(0)	(302)	(637)	(372)	(46)	(319)	(615)	(1,057)
Brown trout	0.0001	8	0	0	37	0	0	0	45
	(0.0002)	(22)	(0)	(0)	(75)	(0)	(0)	(0)	(78)
Lake trout	0.0275	0	7,625	806	410	1,335	0	0	10,176
	(0.0234)	(0)	(7,858)	(1,719)	(472)	(1,885)	(0)	(0)	(8,275)
Channel catfish	0.0020	0	0	300	329	0	114	0	743
	(0.0026)	(0)	(0)	(637)	(673)	(0)	(252)	(0)	(960)
Rock bass	0.0016	0	0	600	0	0	0	0	600
	(0.0034)	(0)	(0)	(1,275)	(0)	(0)	(0)	(0)	(1,275)
Smallmouth bass	0.0040	0	0	1,468	0	0	0	0	1,468
	(0.0062)	(0)	(0)	(2,227)	(0)	(0)	(0)	(0)	(2,227)
Yellow perch	1.2132	0	0	122,255	64,997	248,629	14,659	0	448,285
	(0.8643)	(0)	(0)	(107,319)	(36,518)	(274,271)	(18,884)	(0)	(298,522)
Walleye	0.0133	0	0	758	0	0	4,146	0	4,904
	(0.0258)	(0)	(0)	(1,610)	(0)	(0)	(9,295)	(0)	(9,433)
Freshwater drum	0.0053	75	0	1,513	0	84	286	0	1,958
	(0.0063)	(209)	(0)	(2,153)	(0)	(188)	(617)	(0)	(2,257)
Round whitefish	<0.0001	0	0	0	0	0	0	3	3
	(<0.0001)	(0)	(0)	(0)	(0)	(0)	(0)	(12)	(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	1,562	419	197	115	115	0	0	2,408
	(0.0067)	(1,194)	(780)	(432)	(240)	(243)	(0)	(0)	(1,529)
Chinook salmon	0.0465	172	787	614	6,406	3,764	0	0	11,743
	(0.0288)	(174)	(1,039)	(795)	(5,433)	(2,974)	(0)	(0)	(6,333)
Rainbow trout	0.0023	20	0	66	307	176	0	0	569
	(0.0025)	(41)	(0)	(144)	(513)	(267)	(0)	(0)	(597)
Brown trout	0.0057	202	0	144	307	792	0	0	1,445
	(0.0055)	(239)	(0)	(314)	(463)	(1,178)	(0)	(0)	(1,326)
Lake trout	0.0356	0	1,092	1,587	5,481	823	0	0	8,983
	(0.0248)	(0)	(1,036)	(1,813)	(5,126)	(1,044)	(0)	(0)	(5,633)
Northern pike	0.0026	162	501	0	0	0	0	0	663
	(0.0039)	(246)	(940)	(0)	(0)	(0)	(0)	(0)	(972)
Channel catfish	0.0288	5,964	337	32	465	476	0	0	7,274
	(0.0348)	(8,401)	(591)	(75)	(709)	(1,001)	(0)	(0)	(8,511)
Pumpkinseed	0.0050	0	0	0	0	1,269	0	0	1,269
	(0.0106)	(0)	(0)	(0)	(0)	(2,671)	(0)	(0)	(2,671)
Bluegill	0.0038	0	0	0	0	952	0	0	952
	(0.0081)	(0)	(0)	(0)	(0)	(2,003)	(0)	(0)	(2,003)
Smallmouth bass	0.0047	0	0	0	1,184	0	0	0	1,184
	(0.0099)	(0)	(0)	(0)	(2,467)	(0)	(0)	(0)	(2,467)
Largemouth bass	0.0005	0	122	0	0	0	0	0	122
	(0.0011)	(0)	(278)	(0)	(0)	(0)	(0)	(0)	(278)
Black crappie	0.0121	2,379	684	0	0	0	0	0	3,063
	(0.0206)	(4,908)	(1,481)	(0)	(0)	(0)	(0)	(0)	(5,127)
Yellow perch	0.4267	0	41	78,798	21,561	7,323	0	0	107,723
	(0.3587)	(0)	(93)	(75,028)	(37,502)	(9,343)	(0)	(0)	(84,397)
Walleye	0.0049	31	0	1,197	0	0	0	0	1,228
	(0.0075)	(65)	(0)	(1,831)	(0)	(0)	(0)	(0)	(1,832)
Freshwater drum	0.0083	126	1,072	359	12	519	0	0	2,088
	(0.0095)	(262)	(1,962)	(650)	(35)	(1,006)	(0)	(0)	(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	6,448	3,379	115	0	245	94	0	10,281
	(0.0372)	(9,290)	(4,423)	(237)	(0)	(500)	(192)	(0)	(10,306)
Chinook salmon	0.0472	0	3,862	680	0	4,589	4,234	150	13,515
	(0.0319)	(0)	(5,469)	(1,155)	(0)	(3,695)	(5,050)	(203)	(8,393)
Rainbow trout	0.0025	0	0	151	0	221	337	5	714
	(0.0025)	(0)	(0)	(244)	(0)	(517)	(358)	(9)	(675)
Brown trout	0.0023	115	493	0	0	0	61	0	669
	(0.0030)	(159)	(822)	(0)	(0)	(0)	(125)	(0)	(847)
Lake trout	0.0304	0	7,301	657	0	731	0	0	8,689
	(0.0324)	(0)	(8,851)	(1,085)	(0)	(904)	(0)	(0)	(8,963)
Yellow perch	0.4437	484	95	44,062	0	50,408	31,861	0	126,910
	(0.2560)	(742)	(204)	(21,510)	(0)	(54,874)	(27,179)	(0)	(64,909)
Round whitefish	0.0002	0	0	0	0	0	0	48	48
	(0.0004)	(0)	(0)	(0)	(0)	(0)	(0)	(104)	(104)
Total	0.5622	7,047	15,130	45,665	0	56,194	36,587	203	160,826
	(0.2779)	(9,321)	(11,337)	(21,571)	(0)	(55,010)	(27,647)	(228)	(66,867)
Angler hours		59,759	92,040	29,669	0	57,553	44,747	2,284	286,052
		(41,115)	(51,131)	(9,901)	(0)	(24,772)	(28,687)	(1,657)	(76,434)
Angler trips		13,427	18,554	8,281	0	12,793	11,347	909	65,311
		(7,473)	(10,903)	(2,846)	(0)	(5,142)	(8,182)	(701)	(16,634)
Angler days		13,314	18,554	8,281	0	12,793	11,347	858	65,147
		(7,473)	(10,903)	(2,846)	(0)	(5,142)	(8,182)	(664)	(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	6,525	7,868	3,298	0	975	947	0	19,613
	(0.0139)	(5,729)	(5,771)	(4,895)	(0)	(2,317)	(1,245)	(0)	(9,849)
Chinook salmon	0.0505	5,350	4,525	2,660	10,715	7,001	8,138	0	38,389
	(0.0256)	(3,574)	(3,900)	(3,988)	(11,039)	(9,802)	(7,935)	(0)	(18,022)
Rainbow trout	0.0013	0	144	0	252	0	353	207	956
	(0.0011)	(0)	(249)	(0)	(438)	(0)	(436)	(413)	(784)
Brown trout	0.0013	543	384	0	52	0	0	0	979
	(0.0010)	(683)	(329)	(0)	(106)	(0)	(0)	(0)	(765)
Lake trout	0.0266	0	5,306	9,674	3,102	2,150	0	0	20,232
	(0.0153)	(0)	(4,211)	(8,805)	(3,437)	(3,657)	(0)	(0)	(10,975)
Channel catfish	0.0021	0	0	239	91	1,257	0	0	1,587
	(0.0033)	(0)	(0)	(491)	(207)	(2,404)	(0)	(0)	(2,462)
Bluegill	<0.0001	0	10	0	0	0	0	0	10
	(<0.0001)	(0)	(20)	(0)	(0)	(0)	(0)	(0)	(20)
Smallmouth bass	0.0003	0	0	209	0	0	0	0	209
	(0.0006)	(0)	(0)	(430)	(0)	(0)	(0)	(0)	(430)
Yellow perch	0.2806	22,423	3,601	148,805	16,990	18,821	2,559	0	213,199
	(0.1147)	(44,167)	(3,074)	(58,577)	(14,473)	(18,173)	(2,964)	(0)	(77,071)
Walleye	0.0003	0	0	140	0	0	104	0	244
	(0.0004)	(0)	(0)	(287)	(0)	(0)	(151)	(0)	(324)
Freshwater drum	0.0001	0	0	0	61	0	0	0	61
	(0.0002)	(0)	(0)	(0)	(138)	(0)	(0)	(0)	(138)
Total	0.3889	34,841	21,838	165,025	31,263	30,204	12,101	207	295,479
	(0.1295)	(44,685)	(8,710)	(59,575)	(18,531)	(21,233)	(8,574)	(413)	(80,559)
Angler hours		124,200	139,367	211,922	92,243	58,440	123,003	10,538	759,713
		(22,672)	(56,656)	(88,443)	(48,437)	(44,780)	(72,106)	(1,004)	(145,251)
Angler trips		21,952	26,566	43,042	22,571	16,586	24,679	3,719	159,115
		(4,231)	(10,649)	(17,030)	(10,252)	(11,786)	(12,892)	(834)	(28,849)
Angler days		21,325	26,347	42,679	22,465	16,586	24,443	3,719	157,564
		(4,247)	(10,645)	(17,010)	(10,238)	(11,786)	(12,883)	(834)	(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	Season total
		Jul	
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	7	1,108	1,385	0	616	5,232	3,496	0	11,844
	(0.0418)	(16)	(1,197)	(1,135)	(0)	(1,420)	(10,187)	(3,581)	(0)	(11,015)
Chinook salmon	0.0792	0	236	820	3,312	3,115	8,421	6,783	0	22,687
	(0.0590)	(0)	(270)	(766)	(5,344)	(2,518)	(11,858)	(5,442)	(0)	(14,345)
Rainbow trout	0.0367	1	45	43	158	0	71	9,989	191	10,498
	(0.0310)	(3)	(97)	(73)	(362)	(0)	(119)	(7,852)	(176)	(7,864)
Brown trout	0.0012	87	105	33	0	0	108	0	0	333
	(0.0012)	(137)	(147)	(76)	(0)	(0)	(237)	(0)	(0)	(320)
Lake trout	0.0455	0	0	1,424	11,074	400	139	0	0	13,037
	(0.0771)	(0)	(0)	(1,139)	(21,456)	(530)	(229)	(0)	(0)	(21,494)
Rock bass	0.0007	0	0	0	211	0	0	0	0	211
	(0.0016)	(0)	(0)	(0)	(483)	(0)	(0)	(0)	(0)	(483)
Black crappie	0.0002	0	0	0	0	68	0	0	0	68
	(0.0004)	(0)	(0)	(0)	(0)	(148)	(0)	(0)	(0)	(148)
Yellow perch	0.0575	0	8,910	6,041	592	0	922	0	0	16,465
	(0.0438)	(0)	(6,605)	(8,200)	(980)	(0)	(1,964)	(0)	(0)	(10,756)
Round whitefish	0.0001	0	0	0	0	0	0	0	15	15
	(0.0001)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(14)	(14)
Total	0.2624	95	10,404	9,746	15,347	4,199	14,893	20,268	206	75,158
	(0.1498)	(138)	(6,720)	(8,392)	(22,141)	(2,943)	(15,760)	(10,203)	(177)	(31,097)
Angler hours		1,492	22,412	25,336	44,164	33,584	64,112	92,474	2,828	286,402
		(603)	(10,687)	(15,484)	(57,187)	(23,301)	(79,371)	(46,961)	(1,321)	(112,581)
Angler trips		530	5,410	5,127	6,837	10,329	19,420	16,976	797	65,426
		(275)	(2,161)	(2,776)	(6,456)	(6,833)	(20,653)	(7,930)	(421)	(24,299)
Angler days		504	3,846	4,506	6,495	9,216	14,772	13,526	575	53,440
		(268)	(1,873)	(2,510)	(6,446)	(6,703)	(14,978)	(6,905)	(315)	(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	0	0	0	173	62	0	235
	(0.0004)	(0)	(0)	(0)	(0)	(209)	(127)	(0)	(245)
Coho salmon	0.0283	433	1,169	590	971	5,291	8,922	0	17,376
	(0.0129)	(261)	(1,351)	(694)	(1,455)	(3,816)	(4,593)	(0)	(6,336)
Chinook salmon	0.1352	263	5,212	3,974	6,743	45,889	20,172	838	83,091
	(0.0691)	(296)	(5,577)	(3,158)	(7,479)	(33,098)	(9,100)	(1,278)	(35,735)
Rainbow trout	0.0155	0	174	517	234	2,050	4,060	2,479	9,514
	(0.0081)	(0)	(341)	(515)	(344)	(2,410)	(2,310)	(2,448)	(4,200)
Atlantic salmon	0.0001	0	0	53	0	39	0	0	92
	(0.0002)	(0)	(0)	(117)	(0)	(78)	(0)	(0)	(141)
Brown trout	0.0020	387	182	346	31	270	0	0	1,216
	(0.0014)	(457)	(206)	(421)	(70)	(367)	(0)	(0)	(754)
Brook trout	0.0001	0	91	0	0	0	0	0	91
	(0.0002)	(0)	(221)	(0)	(0)	(0)	(0)	(0)	(221)
Lake trout	0.0177	0	1,671	4,251	2,186	2,791	0	0	10,899
	(0.0099)	(0)	(2,007)	(2,865)	(2,895)	(2,685)	(0)	(0)	(5,275)
Northern pike	0.0002	0	0	0	0	0	103	0	103
	(0.0004)	(0)	(0)	(0)	(0)	(0)	(212)	(0)	(212)
White sucker	0.0001	48	0	0	0	0	0	0	48
	(0.0002)	(97)	(0)	(0)	(0)	(0)	(0)	(0)	(97)
Smallmouth bass	0.0001	0	0	0	68	0	0	0	68
	(0.0002)	(0)	(0)	(0)	(137)	(0)	(0)	(0)	(137)
Yellow perch	0.3740	6,258	372	56,293	89,729	73,840	3,349	0	229,841
	(0.1820)	(5,194)	(575)	(42,270)	(76,277)	(28,378)	(6,867)	(0)	(92,112)
Round whitefish	0.0009	0	0	0	0	0	0	565	565
	(0.0015)	(0)	(0)	(0)	(0)	(0)	(0)	(933)	(933)
Other	0.0002	0	0	0	0	151	0	0	151
	(0.0004)	(0)	(0)	(0)	(0)	(327)	(0)	(0)	(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	46	134	658	294	1,983	7,816	30	10,961
	(0.0128)	(0)	(65)	(186)	(872)	(422)	(1,396)	(5,683)	(43)	(5,935)
Chinook salmon	0.0829	0	157	1,961	1,001	12,150	15,369	11,476	125	42,239
	(0.0346)	(0)	(239)	(1,256)	(1,059)	(9,711)	(7,693)	(6,754)	(132)	(14,208)
Rainbow trout	0.0119	43	34	75	2,121	348	279	2,011	1,154	6,065
	(0.0070)	(64)	(71)	(127)	(2,289)	(763)	(261)	(2,048)	(529)	(3,223)
Brown trout	0.0170	150	189	4,151	1,654	937	1,368	224	0	8,673
	(0.0100)	(188)	(176)	(3,048)	(3,054)	(980)	(1,258)	(383)	(0)	(4,623)
Lake trout	0.0131	0	0	1,791	1,548	2,761	572	0	0	6,672
	(0.0074)	(0)	(0)	(1,092)	(2,083)	(2,354)	(549)	(0)	(0)	(3,373)
Northern pike	0.0001	0	0	0	0	0	0	53	0	53
	(0.0002)	(0)	(0)	(0)	(0)	(0)	(0)	(123)	(0)	(123)
Yellow perch	0.2645	0	47,209	32,682	34,406	1,139	5,224	13,909	167	134,736
	(0.1362)	(0)	(25,396)	(32,820)	(32,630)	(2,356)	(7,582)	(29,230)	(336)	(60,864)
Round whitefish	0.0016	141	16	0	207	0	0	0	426	790
	(0.0011)	(165)	(38)	(0)	(421)	(0)	(0)	(0)	(261)	(523)
Total	0.4126	334	47,651	40,794	41,595	17,629	24,795	35,489	1,902	210,189
	(0.1605)	(258)	(25,398)	(33,004)	(32,950)	(10,350)	(10,980)	(30,605)	(693)	(63,126)
Angler hours		3,655	15,070	58,831	59,521	100,309	95,139	157,668	19,222	509,415
		(1,312)	(5,355)	(24,051)	(45,179)	(75,208)	(34,273)	(79,790)	(4,689)	(125,973)
Angler trips		1,160	3,945	11,720	13,241	22,069	22,040	33,428	5,327	112,930
		(351)	(1,463)	(4,834)	(8,976)	(16,037)	(7,300)	(16,923)	(1,369)	(26,551)
Angler days		850	3,439	9,491	11,090	18,789	18,885	25,695	4,366	92,605
		(274)	(1,283)	(4,226)	(7,552)	(13,587)	(6,717)	(13,373)	(1,231)	(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	0	158	40	7,213	13,716	703	21,830
	(0.0240)	(0)	(0)	(197)	(85)	(7,484)	(7,506)	(370)	(10,608)
Chinook salmon	0.0785	106	676	873	2,578	30,722	7,851	149	42,955
	(0.0596)	(148)	(348)	(870)	(1,615)	(28,414)	(4,465)	(133)	(28,824)
Rainbow trout	0.0114	58	61	912	164	366	539	4,158	6,258
	(0.0051)	(140)	(79)	(794)	(208)	(514)	(564)	(1,229)	(1,671)
Brown trout	0.0096	1,132	1,310	1,264	542	764	105	116	5,233
	(0.0051)	(1,128)	(933)	(1,091)	(412)	(792)	(221)	(111)	(2,047)
Lake trout	0.0192	0	1,849	2,818	1,975	3,857	0	0	10,499
	(0.0112)	(0)	(868)	(2,684)	(1,261)	(3,788)	(0)	(0)	(4,888)
Rainbow smelt	0.0176	9,643	0	0	0	0	0	0	9,643
	(0.0269)	(14,329)	(0)	(0)	(0)	(0)	(0)	(0)	(14,329)
Northern pike	0.0003	0	0	0	51	25	85	0	161
	(0.0004)	(0)	(0)	(0)	(84)	(63)	(180)	(0)	(208)
Yellow bullhead	0.0012	0	0	0	659	0	0	0	659
	(0.0016)	(0)	(0)	(0)	(867)	(0)	(0)	(0)	(867)
Channel catfish	<0.0001	0	0	0	26	0	0	0	26
	(<0.0001)	(0)	(0)	(0)	(57)	(0)	(0)	(0)	(57)
Rock bass	0.0004	0	0	0	231	0	0	0	231
	(0.0008)	(0)	(0)	(0)	(478)	(0)	(0)	(0)	(478)
Smallmouth bass	0.0003	0	0	0	174	0	0	0	174
	(0.0006)	(0)	(0)	(0)	(317)	(0)	(0)	(0)	(317)
Yellow perch	0.0122	0	0	6,329	347	0	0	0	6,676
	(0.0109)	(0)	(0)	(5,410)	(767)	(0)	(0)	(0)	(5,464)
Round whitefish	0.0057	0	0	0	0	0	0	3,113	3,113
	(0.0052)	(0)	(0)	(0)	(0)	(0)	(0)	(2,600)	(2,600)
Other	0.0005	0	254	0	14	0	0	0	268
	(0.0009)	(0)	(489)	(0)	(31)	(0)	(0)	(0)	(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	0	0	0	0	0	1	1
	(<0.0001)	(0)	(0)	(0)	(0)	(0)	(0)	(2)	(2)
Coho salmon	0.0725	0	0	0	0	66	3,425	229	3,720
	(0.0191)	(0)	(0)	(0)	(0)	(70)	(830)	(293)	(883)
Chinook salmon	0.0201	11	7	14	64	129	743	64	1,032
	(0.0070)	(22)	(16)	(31)	(130)	(186)	(242)	(52)	(338)
Rainbow trout	0.0179	24	24	0	0	9	100	760	917
	(0.0055)	(37)	(37)	(0)	(0)	(20)	(96)	(236)	(261)
Brown trout	0.0080	172	84	32	91	20	6	7	412
	(0.0061)	(138)	(151)	(51)	(227)	(33)	(12)	(11)	(312)
Lake trout	0.0016	0	0	35	47	0	0	0	82
	(0.0024)	(0)	(0)	(80)	(95)	(0)	(0)	(0)	(124)
Yellow perch	0.3493	0	0	17,609	326	0	0	0	17,935
	(0.4646)	(0)	(0)	(23,765)	(389)	(0)	(0)	(0)	(23,768)
Round whitefish	0.0029	0	0	11	86	0	0	53	150
	(0.0036)	(0)	(0)	(24)	(173)	(0)	(0)	(60)	(185)
Total	0.4723	207	115	17,701	614	224	4,274	1,114	24,249
	(0.4665)	(145)	(156)	(23,765)	(509)	(202)	(870)	(385)	(23,791)
Angler hours		8,895	950	2,350	2,424	1,679	29,834	5,210	51,342
		(2,243)	(517)	(2,022)	(804)	(1,233)	(4,678)	(930)	(5,857)
Angler trips		2,062	367	570	592	377	5,842	1,218	11,028
		(553)	(214)	(519)	(243)	(277)	(919)	(262)	(1,292)
Angler days		1,112	222	540	552	357	4,356	1,087	8,226
		(320)	(141)	(490)	(207)	(265)	(713)	(244)	(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	0	0	0	737	0	0	737
	(0.0096)	(0)	(0)	(0)	(0)	(1,504)	(0)	(0)	(1,504)
Coho salmon	0.0002	0	0	0	30	0	0	0	30
	(0.0004)	(0)	(0)	(0)	(61)	(0)	(0)	(0)	(61)
Chinook salmon	0.0277	0	0	382	2,485	881	583	0	4,331
	(0.0120)	(0)	(0)	(417)	(1,440)	(883)	(428)	(0)	(1,792)
Rainbow trout	0.0025	48	0	0	235	75	0	25	383
	(0.0030)	(107)	(0)	(0)	(406)	(153)	(0)	(54)	(450)
Brown trout	0.0032	158	263	63	16	0	0	0	500
	(0.0039)	(242)	(538)	(130)	(33)	(0)	(0)	(0)	(605)
Brook trout	0.0012	193	0	0	0	0	0	0	193
	(0.0027)	(427)	(0)	(0)	(0)	(0)	(0)	(0)	(427)
Lake trout	0.0558	0	1,497	1,600	4,415	1,210	0	0	8,722
	(0.0203)	(0)	(1,471)	(1,049)	(2,058)	(1,116)	(0)	(0)	(2,957)
Channel catfish	0.0007	0	0	0	110	0	0	0	110
	(0.0014)	(0)	(0)	(0)	(223)	(0)	(0)	(0)	(223)
Rock bass	0.0008	0	125	0	0	0	0	0	125
	(0.0017)	(0)	(259)	(0)	(0)	(0)	(0)	(0)	(259)
Smallmouth bass	0.0017	0	31	0	0	0	228	0	259
	(0.0020)	(0)	(65)	(0)	(0)	(0)	(294)	(0)	(301)
Yellow perch	0.6539	70,548	3,736	2,768	15	0	15,052	10,063	102,182
	(0.3380)	(48,489)	(5,375)	(3,470)	(30)	(0)	(13,934)	(4,471)	(51,052)
Walleye	0.0026	0	0	0	0	0	0	409	409
	(0.0053)	(0)	(0)	(0)	(0)	(0)	(0)	(831)	(831)
Lake whitefish	0.0697	0	131	6,537	3,554	577	87	0	10,886
	(0.0369)	(0)	(269)	(5,032)	(2,282)	(657)	(177)	(0)	(5,573)
Round whitefish	0.1023	51	1,532	5,522	6,867	0	725	1,296	15,993
	(0.0973)	(104)	(2,222)	(4,981)	(13,942)	(0)	(1,481)	(775)	(15,064)
Burbot	0.0001	0	0	0	18	0	0	0	18
	(0.0002)	(0)	(0)	(0)	(37)	(0)	(0)	(0)	(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	0	40	275	918	726	0	1,959
	(0.0118)	(0)	(0)	(81)	(295)	(601)	(575)	(0)	(886)
Rainbow trout	0.0010	0	0	0	0	0	27	51	78
	(0.0018)	(0)	(0)	(0)	(0)	(0)	(55)	(126)	(137)
Brown trout	0.0029	173	0	0	0	14	36	0	223
	(0.0047)	(356)	(0)	(0)	(0)	(28)	(72)	(0)	(364)
Lake trout	0.0404	0	326	1,284	1,348	155	0	0	3,113
	(0.0208)	(0)	(398)	(755)	(1,302)	(177)	(0)	(0)	(1,567)
Smallmouth bass	0.0089	0	0	93	0	408	187	0	688
	(0.0113)	(0)	(0)	(189)	(0)	(824)	(213)	(0)	(872)
Yellow perch	0.8353	9,957	6,158	5,124	3,811	1,572	19,978	17,775	64,375
	(0.2841)	(7,788)	(5,726)	(4,381)	(4,643)	(2,260)	(9,839)	(14,133)	(20,877)
Lake whitefish	0.0986	0	1,118	2,432	3,113	692	96	145	7,596
	(0.0604)	(0)	(923)	(2,206)	(3,864)	(606)	(144)	(158)	(4,589)
Round whitefish	0.0079	0	44	545	0	0	0	16	605
	(0.0118)	(0)	(88)	(899)	(0)	(0)	(0)	(33)	(904)
Total	1.0204	10,130	7,646	9,518	8,547	3,759	21,050	17,987	78,637
	(0.2978)	(7,796)	(5,814)	(5,048)	(6,186)	(2,559)	(9,860)	(14,134)	(21,491)
Angler hours		11,403	5,591	9,502	17,453	10,675	14,359	8,082	77,065
		(3,462)	(1,453)	(2,648)	(4,327)	(2,299)	(2,875)	(3,007)	(7,901)
Angler trips		2,906	1,154	2,358	4,014	3,008	2,878	2,054	18,372
		(884)	(311)	(701)	(1,040)	(676)	(613)	(731)	(1,954)
Angler days		2,743	1,034	2,254	3,848	2,548	2,711	1,957	17,095
		(870)	(304)	(690)	(1,045)	(632)	(596)	(723)	(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	0	0	0	56	67	187	310
	(0.0056)	(0)	(0)	(0)	(0)	(120)	(136)	(218)	(284)
Chinook salmon	0.0352	0	0	0	823	267	101	608	1,799
	(0.0172)	(0)	(0)	(0)	(685)	(349)	(157)	(361)	(864)
Rainbow trout	0.0177	766	78	0	59	0	0	0	903
	(0.0159)	(790)	(111)	(0)	(120)	(0)	(0)	(0)	(807)
Brown trout	0.0020	0	0	0	0	0	100	0	100
	(0.0030)	(0)	(0)	(0)	(0)	(0)	(150)	(0)	(150)
Lake trout	0.0121	0	0	483	137	0	0	0	620
	(0.0059)	(0)	(0)	(171)	(241)	(0)	(0)	(0)	(296)
White sucker	0.0006	0	32	0	0	0	0	0	32
	(0.0009)	(0)	(46)	(0)	(0)	(0)	(0)	(0)	(46)
Smallmouth bass	0.0184	0	776	95	68	0	0	0	939
	(0.0110)	(0)	(503)	(179)	(150)	(0)	(0)	(0)	(555)
Yellow perch	0.2931	2,897	9,443	2,651	0	0	0	0	14,991
	(0.1158)	(3,751)	(3,526)	(2,549)	(0)	(0)	(0)	(0)	(5,745)
Lake whitefish	0.0299	272	0	0	1,257	0	0	0	1,529
	(0.0349)	(304)	(0)	(0)	(1,755)	(0)	(0)	(0)	(1,781)
Round whitefish	0.0005	0	25	0	0	0	0	0	25
	(0.0010)	(0)	(50)	(0)	(0)	(0)	(0)	(0)	(50)
Total	0.4154	3,935	10,354	3,229	2,344	323	268	795	21,248
	(0.1271)	(3,845)	(3,564)	(2,561)	(1,909)	(369)	(256)	(422)	(6,170)
Angler hours		12,206	7,250	7,271	7,767	4,973	5,175	6,512	51,154
		(2,048)	(1,358)	(1,100)	(2,903)	(2,554)	(1,230)	(864)	(4,946)
Angler trips		3,207	2,074	2,011	2,514	1,132	1,190	1,953	14,081
		(634)	(387)	(370)	(960)	(511)	(334)	(348)	(1,451)
Angler days		2,661	1,764	1,821	1,857	1,132	820	1,392	11,447
		(609)	(365)	(379)	(684)	(511)	(303)	(308)	(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	0	93	47	9	0	0	149
	(0.0023)	(0)	(0)	(173)	(97)	(18)	(0)	(0)	(199)
Chinook salmon	0.1037	0	0	382	2,548	2,463	2,763	1,182	9,338
	(0.0295)	(0)	(0)	(429)	(1,191)	(1,575)	(1,029)	(511)	(2,324)
Rainbow trout	0.0119	96	0	0	934	42	0	0	1,072
	(0.0111)	(78)	(0)	(0)	(984)	(87)	(0)	(0)	(991)
Brown trout	0.0006	0	0	0	55	0	0	0	55
	(0.0012)	(0)	(0)	(0)	(111)	(0)	(0)	(0)	(111)
Lake trout	0.0240	0	82	801	966	308	0	0	2,157
	(0.0142)	(0)	(75)	(749)	(961)	(241)	(0)	(0)	(1,244)
Rock bass	0.0029	0	0	262	0	0	0	0	262
	(0.0059)	(0)	(0)	(535)	(0)	(0)	(0)	(0)	(535)
Largemouth bass	0.0008	0	0	0	0	75	0	0	75
	(0.0016)	(0)	(0)	(0)	(0)	(153)	(0)	(0)	(153)
Round whitefish	0.0010	0	0	0	0	0	0	91	91
	(0.0020)	(0)	(0)	(0)	(0)	(0)	(0)	(182)	(182)
Total	0.1466	96	82	1,538	4,550	2,897	2,763	1,273	13,199
	(0.0379)	(78)	(75)	(1,030)	(1,825)	(1,603)	(1,029)	(542)	(2,885)
Angler hours		220	2,058	13,147	33,187	18,470	18,337	4,624	90,043
		(253)	(587)	(3,438)	(8,883)	(6,873)	(4,060)	(948)	(12,480)
Angler trips		75	395	2,678	6,541	3,776	4,046	1,766	19,277
		(79)	(118)	(762)	(1,764)	(1,416)	(907)	(395)	(2,588)
Angler days		75	379	2,678	6,541	3,776	4,046	1,766	19,261
		(79)	(118)	(762)	(1,764)	(1,416)	(907)	(395)	(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	0	17	180	489	746	8	1,440
	(0.0202)	(0)	(0)	(34)	(154)	(303)	(715)	(16)	(793)
Rainbow trout	0.0041	0	0	0	0	10	8	148	166
	(0.0035)	(0)	(0)	(0)	(0)	(20)	(17)	(137)	(139)
Brown trout	0.0011	0	0	0	46	0	0	0	46
	(0.0022)	(0)	(0)	(0)	(93)	(0)	(0)	(0)	(93)
Lake trout	0.0532	0	360	347	1,016	451	0	0	2,174
	(0.0261)	(0)	(245)	(332)	(570)	(720)	(0)	(0)	(1,007)
Smallmouth bass	0.0055	0	0	0	0	0	225	0	225
	(0.0102)	(0)	(0)	(0)	(0)	(0)	(416)	(0)	(416)
Yellow perch	0.0801	0	0	336	395	317	0	2,228	3,276
	(0.1111)	(0)	(0)	(485)	(172)	(355)	(0)	(4,467)	(4,511)
Round whitefish	0.0121	0	0	0	0	0	0	495	495
	(0.0244)	(0)	(0)	(0)	(0)	(0)	(0)	(993)	(993)
Total	0.1913	0	360	700	1,637	1,267	979	2,879	7,822
	(0.1218)	(0)	(245)	(589)	(622)	(858)	(827)	(4,578)	(4,814)
Angler hours		0	1,566	4,052	10,392	13,383	8,315	3,173	40,881
		(0)	(855)	(1,445)	(3,394)	(5,133)	(1,793)	(414)	(6,639)
Angler trips		0	385	836	2,451	2,752	2,161	834	9,419
		(0)	(214)	(300)	(758)	(978)	(532)	(264)	(1,421)
Angler days		0	385	836	2,451	2,752	2,161	834	9,419
		(0)	(214)	(300)	(758)	(978)	(532)	(264)	(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	0	0	265	98	45	27	435
	(0.0118)	(0)	(0)	(0)	(384)	(200)	(68)	(50)	(441)
Rainbow trout	0.0019	0	0	0	0	0	0	73	73
	(0.0027)	(0)	(0)	(0)	(0)	(0)	(0)	(104)	(104)
Brown trout	0.0036	0	0	0	32	93	11	0	136
	(0.0055)	(0)	(0)	(0)	(66)	(193)	(27)	(0)	(206)
Lake trout	0.0130	0	0	63	385	50	0	0	498
	(0.0113)	(0)	(0)	(60)	(400)	(103)	(0)	(0)	(417)
Rainbow smelt	0.0004	0	0	0	0	0	0	17	17
	(0.0009)	(0)	(0)	(0)	(0)	(0)	(0)	(37)	(37)
Smallmouth bass	0.0138	0	0	0	107	0	422	0	529
	(0.0145)	(0)	(0)	(0)	(221)	(0)	(497)	(0)	(544)
Largemouth bass	0.0011	0	0	0	0	44	0	0	44
	(0.0023)	(0)	(0)	(0)	(0)	(91)	(0)	(0)	(91)
Yellow perch	0.6898	0	2,599	845	0	1,114	1,921	19,922	26,401
	(0.4531)	(0)	(1,931)	(1,817)	(0)	(2,311)	(1,714)	(15,820)	(16,297)
Round whitefish	0.0003	0	12	0	0	0	0	0	12
	(0.0006)	(0)	(24)	(0)	(0)	(0)	(0)	(0)	(24)
Total	0.7353	0	2,611	908	789	1,399	2,399	20,039	28,145
	(0.4572)	(0)	(1,931)	(1,818)	(601)	(2,332)	(1,786)	(15,820)	(16,319)
Angler hours		0	1,859	592	11,533	10,599	7,317	6,376	38,276
		(0)	(794)	(360)	(5,176)	(4,605)	(2,446)	(4,369)	(8,592)
Angler trips		0	515	123	2,913	2,643	1,928	1,591	9,713
		(0)	(242)	(77)	(1,389)	(1,157)	(692)	(1,013)	(2,199)
Angler days		0	515	123	2,913	2,643	1,928	1,591	9,713
		(0)	(242)	(77)	(1,389)	(1,157)	(692)	(1,013)	(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	0	0	0	0	2,267	0	2,267
	(0.0318)	(0)	(0)	(0)	(0)	(0)	(1,417)	(0)	(1,417)
Coho salmon	0.0093	0	0	0	31	0	264	123	418
	(0.0052)	(0)	(0)	(0)	(48)	(0)	(189)	(121)	(229)
Chinook salmon	0.0712	0	0	0	552	164	1,385	1,113	3,214
	(0.0323)	(0)	(0)	(0)	(296)	(79)	(1,112)	(830)	(1,421)
Rainbow trout	0.0137	202	11	0	8	0	269	128	618
	(0.0092)	(255)	(22)	(0)	(15)	(0)	(234)	(217)	(409)
Brown trout	0.0024	0	0	0	15	41	53	0	109
	(0.0026)	(0)	(0)	(0)	(31)	(83)	(76)	(0)	(117)
Northern pike	0.0029	0	0	0	84	49	0	0	133
	(0.0030)	(0)	(0)	(0)	(122)	(62)	(0)	(0)	(137)
Smallmouth bass	0.0047	0	0	0	211	0	0	0	211
	(0.0056)	(0)	(0)	(0)	(251)	(0)	(0)	(0)	(251)
Walleye	0.0048	0	0	0	194	0	0	22	216
	(0.0052)	(0)	(0)	(0)	(227)	(0)	(0)	(45)	(231)
Total	0.1592	202	11	0	1,095	254	4,238	1,386	7,186
	(0.0491)	(255)	(22)	(0)	(470)	(130)	(1,828)	(868)	(2,097)
Angler hours		4,444	1,144	0	13,151	3,378	18,516	4,506	45,139
		(1,333)	(414)	(0)	(2,156)	(835)	(3,319)	(1,272)	(4,464)
Angler trips		798	214	0	3,180	1,112	4,759	1,125	11,188
		(355)	(107)	(0)	(572)	(260)	(870)	(339)	(1,185)
Angler days		750	214	0	3,180	1,112	4,759	1,125	11,140
		(355)	(107)	(0)	(572)	(260)	(870)	(339)	(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	419	76	238	744	0	0	1,477
	(0.0203)	(0)	(622)	(113)	(243)	(941)	(0)	(0)	(1,159)
Black bullhead	0.0018	0	0	0	0	106	0	0	106
	(0.0037)	(0)	(0)	(0)	(0)	(219)	(0)	(0)	(219)
Rock bass	0.0082	0	0	0	0	485	0	0	485
	(0.0116)	(0)	(0)	(0)	(0)	(675)	(0)	(0)	(675)
Pumpkinseed	0.0628	0	0	0	186	3,543	0	0	3,729
	(0.1349)	(0)	(0)	(0)	(271)	(7,958)	(0)	(0)	(7,963)
Smallmouth bass	0.0813	0	0	114	2,528	2,187	0	0	4,829
	(0.0710)	(0)	(0)	(179)	(3,662)	(1,778)	(0)	(0)	(4,075)
Yellow perch	1.9677	102,665	2,628	114	395	9,690	0	1,355	116,847
	(0.8242)	(38,329)	(2,473)	(244)	(538)	(14,979)	(0)	(991)	(41,242)
Total	2.1472	132,665	3,047	304	3,347	16,755	0	1,355	127,505
	(0.8602)	(38,329)	(2,550)	(323)	(3,535)	(17,095)	(0)	(991)	(42,207)
Angler hours		28,677	2,676	4,375	8,533	14,580	0	542	59,383
		(10,786)	(882)	(2,437)	(3,824)	(6,451)	(0)	(177)	(13,391)
Angler trips		5,344	517	1,610	2,433	4,280	0	245	14,429
		(1,944)	(175)	(993)	(829)	(1,608)	(0)	(91)	(2,842)
Angler days		5,344	517	1,301	2,433	4,280	0	245	14,120
		(1,944)	(175)	(918)	(829)	(1,608)	(0)	(91)	(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	0	0	0	49	23	0	72
	(0.0009)	(0)	(0)	(0)	(0)	(98)	(47)	(0)	(109)
Chinook salmon	0.0012	0	0	0	0	55	98	0	153
	(0.0012)	(0)	(0)	(0)	(0)	(89)	(117)	(0)	(147)
Brown trout	0.0002	0	0	0	0	0	0	28	28
	(0.0004)	(0)	(0)	(0)	(0)	(0)	(0)	(56)	(56)
Northern pike	0.0225	0	0	21	715	1,265	390	420	2,811
	(0.0128)	(0)	(0)	(45)	(668)	(1,279)	(316)	(501)	(1,560)
Black bullhead	0.0003	0	0	0	0	0	43	0	43
	(0.0006)	(0)	(0)	(0)	(0)	(0)	(86)	(0)	(86)
Brown bullhead	0.0011	0	0	0	0	0	133	0	133
	(0.0022)	(0)	(0)	(0)	(0)	(0)	(268)	(0)	(268)
Channel catfish	0.0015	0	0	0	184	0	0	0	184
	(0.0030)	(0)	(0)	(0)	(371)	(0)	(0)	(0)	(371)
White bass	0.0005	0	0	60	0	0	0	0	60
	(0.0007)	(0)	(0)	(81)	(0)	(0)	(0)	(0)	(81)
Rock bass	0.0200	0	0	112	404	1,290	525	158	2,489
	(0.0131)	(0)	(0)	(173)	(659)	(1,239)	(691)	(319)	(1,606)
Pumpkinseed	0.0223	0	0	0	221	1,832	493	236	2,782
	(0.0235)	(0)	(0)	(0)	(327)	(2,787)	(598)	(478)	(2,909)
Bluegill	0.0002	0	0	31	0	0	0	0	31
	(0.0004)	(0)	(0)	(65)	(0)	(0)	(0)	(0)	(65)
Smallmouth bass	0.0067	0	0	38	78	158	466	99	839
	(0.0058)	(0)	(0)	(79)	(157)	(269)	(603)	(209)	(715)
White crappie	0.0039	0	0	488	0	0	0	0	488
	(0.0063)	(0)	(0)	(785)	(0)	(0)	(0)	(0)	(785)
Black crappie	0.0026	0	0	247	80	0	0	0	327
	(0.0033)	(0)	(0)	(376)	(162)	(0)	(0)	(0)	(409)
Yellow perch	0.4631	13,057	4,415	3,370	6,393	7,896	15,560	7,064	57,750
	(0.1413)	(5,861)	(3,301)	(1,687)	(5,453)	(7,483)	(9,766)	(5,361)	(16,060)
Walleye	0.0894	0	836	523	2,886	6,285	321	298	11,149
	(0.0325)	(0)	(906)	(324)	(2,395)	(2,760)	(292)	(325)	(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	0	0	1,476	392	0	1,868
	(0.0261)	(0)	(0)	(0)	(667)	(273)	(0)	(721)
Rainbow trout	0.0006	0	0	0	0	19	0	19
	(0.0012)	(0)	(0)	(0)	(0)	(39)	(0)	(39)
Brown trout	0.0005	0	0	0	0	15	0	15
	(0.0010)	(0)	(0)	(0)	(0)	(29)	(0)	(29)
Northern pike	0.0027	0	0	0	0	81	0	81
	(0.0039)	(0)	(0)	(0)	(0)	(115)	(0)	(115)
White sucker	0.0010	0	0	29	0	0	0	29
	(0.0021)	(0)	(0)	(62)	(0)	(0)	(0)	(62)
Rock bass	0.0030	0	0	88	0	0	0	88
	(0.0063)	(0)	(0)	(185)	(0)	(0)	(0)	(185)
Pumpkinseed	0.0010	0	0	29	0	0	0	29
	(0.0021)	(0)	(0)	(62)	(0)	(0)	(0)	(62)
Bluegill	0.0030	0	0	88	0	0	0	88
	(0.0063)	(0)	(0)	(185)	(0)	(0)	(0)	(185)
Smallmouth bass	0.0258	0	0	591	0	35	140	766
	(0.0186)	(0)	(0)	(533)	(0)	(71)	(49)	(540)
Yellow perch	0.0575	0	0	0	1,663	47	0	1,710
	(0.1131)	(0)	(0)	(0)	(3,352)	(94)	(0)	(3,353)
Total	0.1579	0	0	825	3,139	589	140	4,693
	(0.1197)	(0)	(0)	(600)	(3,418)	(322)	(49)	(3,486)
Angler hours		2,370	1,357	4,427	12,811	8,335	416	29,716
		(511)	(637)	(1,576)	(2,974)	(2,876)	(324)	(4,514)
Angler trips		1,562	199	1,147	3,253	2,189	259	8,609
		(200)	(98)	(449)	(956)	(931)	(317)	(1,460)
Angler days		1,562	199	1,147	3,253	2,189	259	8,609
		(200)	(98)	(449)	(956)	(931)	(317)	(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	4	0	214	0	0	0	0	218
	(0.0023)	(9)	(0)	(382)	(0)	(0)	(0)	(0)	(382)
Coho salmon	0.0015	131	117	0	0	0	0	0	248
	(0.0013)	(117)	(166)	(0)	(0)	(0)	(0)	(0)	(203)
Chinook salmon	0.0056	88	9	29	0	0	800	0	926
	(0.0060)	(62)	(18)	(59)	(0)	(0)	(975)	(0)	(979)
Rainbow trout	0.0006	72	0	23	0	0	0	0	95
	(0.0006)	(82)	(0)	(47)	(0)	(0)	(0)	(0)	(95)
Brown trout	0.0001	12	0	9	0	0	0	0	21
	(0.0001)	(21)	(0)	(18)	(0)	(0)	(0)	(0)	(28)
Rainbow smelt	0.2810	46,371	0	0	0	0	0	0	46,371
	(0.2828)	(46,034)	(0)	(0)	(0)	(0)	(0)	(0)	(46,034)
White sucker	0.0001	4	10	0	0	0	0	0	14
	(0.0002)	(10)	(21)	(0)	(0)	(0)	(0)	(0)	(23)
Redhorse (spp)	0.0031	0	321	0	0	0	185	0	506
	(0.0036)	(0)	(455)	(0)	(0)	(0)	(370)	(0)	(586)
White bass	<0.0001	3	0	0	0	0	0	0	3
	(<0.0001)	(6)	(0)	(0)	(0)	(0)	(0)	(0)	(6)
White crappie	0.0002	25	0	0	0	0	0	0	25
	(0.0004)	(51)	(0)	(0)	(0)	(0)	(0)	(0)	(51)
Yellow perch	0.0094	797	67	242	331	75	32	0	1,544
	(0.0059)	(752)	(90)	(310)	(427)	(153)	(66)	(0)	(938)
Walleye	0.3787	86	956	5,753	40,447	5,701	9,402	152	62,497
	(0.1545)	(156)	(1,319)	(2,690)	(22,395)	(1,958)	(5,453)	(188)	(23,327)
Freshwater drum	0.0016	0	42	25	0	8	185	0	260
	(0.0024)	(0)	(88)	(51)	(0)	(17)	(370)	(0)	(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	1,072	487	193	0	5	0	1,757
	(0.0026)	(0)	(659)	(347)	(179)	(0)	(10)	(0)	(766)
Coho salmon	0.0060	672	162	516	520	4	0	0	1,874
	(0.0033)	(857)	(104)	(344)	(350)	(8)	(0)	(0)	(993)
Chinook salmon	0.0222	1,094	2,086	550	1,559	705	781	176	6,951
	(0.0064)	(862)	(1,002)	(373)	(626)	(368)	(424)	(129)	(1,616)
Rainbow trout	0.0025	435	138	9	90	77	13	29	791
	(0.0019)	(554)	(106)	(18)	(137)	(83)	(27)	(42)	(589)
Brown trout	0.0010	117	24	24	117	0	36	10	328
	(0.0007)	(156)	(27)	(38)	(112)	(0)	(75)	(21)	(212)
Lake trout	0.0021	0	229	78	346	0	0	0	653
	(0.0015)	(0)	(292)	(79)	(319)	(0)	(0)	(0)	(440)
Northern pike	0.0001	0	0	0	0	24	0	0	24
	(0.0002)	(0)	(0)	(0)	(0)	(53)	(0)	(0)	(53)
Channel catfish	0.0016	0	8	336	62	96	4	0	506
	(0.0016)	(0)	(16)	(434)	(104)	(198)	(8)	(0)	(489)
White perch	0.0008	0	0	156	80	5	0	0	241
	(0.0009)	(0)	(0)	(240)	(124)	(11)	(0)	(0)	(270)
White bass	<0.0001	0	0	0	0	5	0	0	5
	(0)	(0)	(0)	(0)	(0)	(11)	(0)	(0)	(11)
Rock bass	0.0032	0	939	0	56	0	0	0	995
	(0.0067)	(0)	(2,087)	(0)	(126)	(0)	(0)	(0)	(2,091)
Smallmouth bass	0.0001	0	0	11	0	0	10	0	21
	(0.0001)	(0)	(0)	(23)	(0)	(0)	(20)	(0)	(30)
Yellow perch	0.1231	44	756	10,717	24,867	1,618	535	0	38,537
	(0.0383)	(97)	(822)	(4,623)	(8,773)	(1,651)	(619)	(0)	(10,106)
Walleye	0.0024	24	0	0	182	344	136	58	744
	(0.0014)	(43)	(0)	(0)	(184)	(265)	(215)	(118)	(408)
Freshwater drum	0.0003	0	11	80	0	0	0	0	91
	(0.0004)	(0)	(23)	(121)	(0)	(0)	(0)	(0)	(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	840	1,595	503	43	0	0	2,981
	(0.0039)	(0)	(616)	(1,193)	(387)	(75)	(0)	(0)	(1,399)
Coho salmon	0.0014	290	120	18	67	0	25	0	520
	(0.0010)	(330)	(134)	(36)	(111)	(0)	(52)	(0)	(378)
Chinook salmon	0.0408	704	2,096	536	6,441	1,754	2,676	1,050	15,257
	(0.0115)	(627)	(1,141)	(533)	(2,812)	(928)	(1,192)	(1,152)	(3,674)
Rainbow trout	0.0019	24	145	69	200	117	8	149	712
	(0.0012)	(38)	(183)	(108)	(205)	(116)	(17)	(278)	(424)
Brown trout	0.0019	40	41	113	372	45	16	77	704
	(0.0011)	(69)	(85)	(142)	(337)	(71)	(32)	(71)	(396)
Lake trout	0.0444	0	2,133	7,153	6,160	1,167	0	0	16,613
	(0.0150)	(0)	(1,388)	(3,489)	(3,201)	(977)	(0)	(0)	(5,030)
Channel catfish	0.0057	0	0	23	2,023	69	0	0	2,115
	(0.0094)	(0)	(0)	(48)	(3,482)	(108)	(0)	(0)	(3,484)
Smallmouth bass	0.0019	0	655	61	0	0	0	0	716
	(0.0013)	(0)	(444)	(124)	(0)	(0)	(0)	(0)	(461)
Yellow perch	0.3922	17,057	7,093	36,067	42,410	13,822	30,327	0	146,776
	(0.1295)	(13,906)	(4,934)	(22,262)	(25,967)	(10,887)	(19,215)	(0)	(43,305)
Walleye	0.0061	0	0	0	382	1,744	143	0	2,269
	(0.0038)	(0)	(0)	(0)	(503)	(1,247)	(163)	(0)	(1,354)
Freshwater drum	0.0055	0	0	0	1,996	29	23	0	2,048
	(0.0093)	(0)	(0)	(0)	(3,466)	(62)	(48)	(0)	(3,467)
Other	0.0001	0	0	0	0	39	0	0	39
	(0.0002)	(0)	(0)	(0)	(0)	(80)	(0)	(0)	(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	446	780	0	68	0	0	1,294
	(0.0023)	(0)	(368)	(716)	(0)	(111)	(0)	(0)	(813)
Coho salmon	0.0002	0	67	0	0	0	0	0	67
	(0.0003)	(0)	(91)	(0)	(0)	(0)	(0)	(0)	(91)
Chinook salmon	0.0183	119	779	63	1,833	886	1,785	1,255	6,720
	(0.0064)	(170)	(394)	(93)	(1,242)	(620)	(1,253)	(969)	(2,151)
Rainbow trout	0.0011	0	11	25	191	138	34	0	399
	(0.0008)	(0)	(16)	(52)	(228)	(154)	(59)	(0)	(287)
Brown trout	0.0011	24	0	0	74	41	248	20	407
	(0.0014)	(50)	(0)	(0)	(150)	(60)	(488)	(33)	(518)
Lake trout	0.0244	0	2,067	2,623	3,425	853	0	0	8,968
	(0.0082)	(0)	(879)	(1,652)	(1,916)	(617)	(0)	(0)	(2,748)
Northern pike	0.0001	0	0	0	23	0	16	0	39
	(0.0002)	(0)	(0)	(0)	(47)	(0)	(35)	(0)	(59)
Channel catfish	0.0035	0	0	1,255	0	9	8	0	1,272
	(0.0072)	(0)	(0)	(2,621)	(0)	(19)	(16)	(0)	(2,621)
White perch	0.0016	170	0	0	402	0	0	0	572
	(0.0025)	(352)	(0)	(0)	(813)	(0)	(0)	(0)	(886)
Rock bass	0.0006	0	0	0	0	203	0	0	203
	(0.0013)	(0)	(0)	(0)	(0)	(427)	(0)	(0)	(427)
Smallmouth bass	0.0001	0	0	0	23	0	0	0	23
	(0.0002)	(0)	(0)	(0)	(47)	(0)	(0)	(0)	(47)
Yellow perch	0.7435	131,556	8,609	41,025	15,719	18,365	57,029	685	272,988
	(0.2479)	(63,492)	(4,962)	(31,221)	(8,617)	(11,255)	(39,344)	(742)	(82,341)
Walleye	0.0266	0	0	1,249	6,671	1,709	139	0	9,768
	(0.0113)	(0)	(0)	(1,390)	(3,289)	(1,558)	(168)	(0)	(3,899)
Freshwater drum	0.0001	0	0	52	0	0	0	0	52
	(0.0002)	(0)	(0)	(106)	(0)	(0)	(0)	(0)	(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	0	0	0	0	0	12	12
	(0.0002)	(0)	(0)	(0)	(0)	(0)	(0)	(25)	(25)
Black bullhead	0.0009	0	203	0	0	0	0	0	203
	(0.0019)	(0)	(426)	(0)	(0)	(0)	(0)	(0)	(426)
Yellow bullhead	0.0092	149	1,827	0	0	0	0	0	1,976
	(0.0180)	(323)	(3,831)	(0)	(0)	(0)	(0)	(0)	(3,845)
Brown bullhead	0.0057	13	518	575	83	0	0	25	1,214
	(0.0048)	(27)	(539)	(831)	(122)	(0)	(0)	(52)	(1,000)
Channel catfish	0.0233	239	1,893	2,234	539	82	8	0	4,995
	(0.0138)	(518)	(1,907)	(1,977)	(518)	(167)	(16)	(0)	(2,848)
White bass	0.0015	0	282	6	43	0	0	0	331
	(0.0027)	(0)	(582)	(12)	(89)	(0)	(0)	(0)	(589)
Rock bass	0.0002	0	0	13	13	0	20	0	46
	(0.0002)	(0)	(0)	(25)	(28)	(0)	(40)	(0)	(55)
Pumpkinseed	0.0110	0	0	564	83	593	1,116	0	2,356
	(0.0081)	(0)	(0)	(1,164)	(122)	(739)	(990)	(0)	(1,702)
Bluegill	0.0036	0	0	340	435	0	0	0	775
	(0.0048)	(0)	(0)	(522)	(888)	(0)	(0)	(0)	(1,030)
Redear sunfish	0.0035	0	760	0	0	0	0	0	760
	(0.0047)	(0)	(1,017)	(0)	(0)	(0)	(0)	(0)	(1,017)
Largemouth bass	0.0061	0	753	468	67	19	0	0	1,307
	(0.0077)	(0)	(1,460)	(728)	(114)	(39)	(0)	(0)	(1,636)
White crappie	0.0120	204	347	0	268	0	0	1,761	2,580
	(0.0170)	(443)	(419)	(0)	(551)	(0)	(0)	(3,534)	(3,628)
Yellow perch	1.0890	203,406	7,308	2,673	2,201	9,169	4,975	3,664	233,396
	(0.4606)	(90,103)	(6,285)	(4,432)	(3,999)	(11,734)	(5,130)	(2,412)	(91,452)
Walleye	0.0405	0	624	1,388	6,661	0	0	0	8,673
	(0.0235)	(0)	(829)	(1,608)	(4,497)	(0)	(0)	(0)	(4,847)
Freshwater drum	0.0056	0	562	491	154	0	0	0	1,207
	(0.0047)	(0)	(664)	(701)	(210)	(0)	(0)	(0)	(988)
Other	0.0229	16	4,871	6	0	19	0	0	4,912
	(0.0449)	(34)	(9,606)	(12)	(0)	(39)	(0)	(0)	(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 Sebewaing 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	9	0	0	0	0	0	9
	(0.0002)	(0)	(19)	(0)	(0)	(0)	(0)	(0)	(19)
White sucker	0.0365	6,246	0	0	0	0	0	0	6,246
	(0.0425)	(7,159)	(0)	(0)	(0)	(0)	(0)	(0)	(7,159)
Yellow bullhead	0.0039	445	101	0	0	0	124	0	670
	(0.0041)	(637)	(107)	(0)	(0)	(0)	(256)	(0)	(695)
Brown bullhead	0.0301	1,331	878	1,584	356	175	782	40	5,146
	(0.0148)	(1,542)	(583)	(1,179)	(630)	(333)	(816)	(81)	(2,300)
Channel catfish	0.1038	320	1,879	6,478	7,139	489	1,445	0	17,750
	(0.0560)	(442)	(1,286)	(5,474)	(6,532)	(729)	(1,927)	(0)	(8,873)
White bass	0.0666	2,933	4,745	1,708	1,311	685	0	0	11,382
	(0.0387)	(3,696)	(3,873)	(1,652)	(2,383)	(1,153)	(0)	(0)	(6,197)
Rock bass	0.0003	0	47	0	0	0	0	0	47
	(0.0005)	(0)	(76)	(0)	(0)	(0)	(0)	(0)	(76)
Pumpkinseed	0.0095	0	61	348	0	404	803	13	1,629
	(0.0100)	(0)	(89)	(612)	(0)	(816)	(1,345)	(27)	(1,691)
Bluegill	0.0003	0	0	0	0	0	0	54	54
	(0.0006)	(0)	(0)	(0)	(0)	(0)	(0)	(108)	(108)
Longear sunfish	0.0003	0	57	0	0	0	0	0	57
	(0.0004)	(0)	(83)	(0)	(0)	(0)	(0)	(0)	(83)
Redear sunfish	0.0062	1,006	47	6	0	0	0	0	1,059
	(0.0066)	(1,108)	(71)	(13)	(0)	(0)	(0)	(0)	(1,110)
Smallmouth bass	0.0001	0	18	0	0	0	0	0	18
	(0.0002)	(0)	(37)	(0)	(0)	(0)	(0)	(0)	(37)
Largemouth bass	0.0077	0	278	0	950	86	0	0	1,314
	(0.0075)	(0)	(323)	(0)	(1,199)	(181)	(0)	(0)	(1,255)
White crappie	0.0130	36	34	0	106	47	291	1,704	2,218
	(0.0084)	(77)	(68)	(0)	(211)	(114)	(411)	(1,273)	(1,363)
Black crappie	0.0004	0	70	0	0	0	0	0	70
	(0.0007)	(0)	(119)	(0)	(0)	(0)	(0)	(0)	(119)
Yellow perch	0.7171	69,518	1,423	229	2,352	5,783	22,406	20,918	122,629
	(0.2644)	(33,420)	(2,330)	(272)	(2,394)	(6,728)	(14,361)	(6,760)	(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 (7,058)	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	149	0	0	0	0	0	0	149
	(0.0018)	(328)	(0)	(0)	(0)	(0)	(0)	(0)	(328)
Brown bullhead	0.0020	340	0	42	0	0	0	0	382
	(0.0040)	(751)	(0)	(91)	(0)	(0)	(0)	(0)	(756)
Channel catfish	0.0150	904	71	0	15	0	1,878	0	2,868
	(0.0190)	(2,032)	(146)	(0)	(35)	(0)	(2,910)	(0)	(3,552)
White bass	0.0019	0	38	334	0	0	0	0	372
	(0.0024)	(0)	(78)	(443)	(0)	(0)	(0)	(0)	(450)
Pumpkinseed	0.0003	0	0	0	66	0	0	0	66
	(0.0006)	(0)	(0)	(0)	(134)	(0)	(0)	(0)	(134)
White crappie	0.0055	882	0	165	0	0	0	0	1,047
	(0.0107)	(1,981)	(0)	(359)	(0)	(0)	(0)	(0)	(2,013)
Yellow perch	2.4448	288,081	496	0	245	28,456	133,037	16,317	466,632
	(1.4573)	(219,270)	(736)	(0)	(352)	(23,401)	(114,635)	(7,022)	(248,632)
Walleye	0.0023	60	0	0	0	0	371	0	431
	(0.0043)	(131)	(0)	(0)	(0)	(0)	(793)	(0)	(804)
Freshwater drum	0.0013	0	71	169	8	0	0	0	248
	(0.0016)	(0)	(146)	(260)	(17)	(0)	(0)	(0)	(299)
Total	2.4739	290,416	676	710	334	28,456	135,286	16,317	472,195
	(1.4609)	(219,290)	(768)	(633)	(379)	(23,401)	(114,675)	(7,022)	(248,669)
Angler hours		73,514	56,219	3,581	2,658	17,491	31,584	5,820	190,867
		(42,277)	(20,339)	(2,188)	(1,197)	(7,857)	(18,171)	(1,535)	(51,005)
Angler trips		22,349	13,195	2,749	2,053	3,415	4,347	4,831	52,939
		(10,838)	(4,460)	(1,737)	(904)	(1,349)	(2,582)	(1,599)	(12,338)
Angler days		21,125	13,195	2,571	2,053	3,415	4,347	4,831	51,537
		(10,310)	(4,460)	(1,633)	(904)	(1,349)	(2,582)	(1,599)	(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	296	0	0	0	0	0	296
	(0.0011)	(0)	(270)	(0)	(0)	(0)	(0)	(0)	(270)
Black bullhead	<0.0001	0	0	0	0	0	0	2	2
	(<0.0001)	(0)	(0)	(0)	(0)	(0)	(0)	(4)	(4)
Brown bullhead	0.0020	67	402	0	0	0	0	0	469
	(0.0018)	(145)	(395)	(0)	(0)	(0)	(0)	(0)	(421)
Channel catfish	0.0105	7	213	714	1,062	376	136	0	2,508
	(0.0052)	(15)	(255)	(617)	(832)	(494)	(152)	(0)	(1,185)
White perch	0.0024	0	529	0	49	0	0	0	578
	(0.0045)	(0)	(1,078)	(0)	(99)	(0)	(0)	(0)	(1,083)
White bass	0.0051	7	292	313	234	313	65	2	1,226
	(0.0036)	(9)	(398)	(330)	(393)	(516)	(132)	(4)	(840)
Rock bass	0.0018	0	428	0	0	0	0	0	428
	(0.0017)	(0)	(397)	(0)	(0)	(0)	(0)	(0)	(397)
Green sunfish	0.0017	0	402	0	0	0	0	0	402
	(0.0017)	(0)	(395)	(0)	(0)	(0)	(0)	(0)	(395)
Pumpkinseed	0.0009	0	4	0	147	0	53	2	206
	(0.0014)	(0)	(8)	(0)	(297)	(0)	(91)	(4)	(311)
Smallmouth bass	<0.0001	0	0	0	0	0	11	0	11
	(<0.0001)	(0)	(0)	(0)	(0)	(0)	(22)	(0)	(22)
Largemouth bass	0.0025	0	0	297	293	0	11	0	601
	(0.0024)	(0)	(0)	(408)	(406)	(0)	(22)	(0)	(576)
Yellow perch	1.8046	123,996	20,531	76,495	64,355	23,841	79,997	43,234	432,449
	(0.5132)	(66,753)	(16,662)	(58,997)	(31,699)	(14,293)	(33,492)	(27,273)	(106,249)
Walleye	0.0569	62	852	1,468	7,209	3,504	426	106	13,627
	(0.0187)	(54)	(640)	(1,099)	(3,332)	(1,808)	(325)	(209)	(4,018)
Freshwater drum	0.0006	0	32	104	0	14	0	0	150
	(0.0007)	(0)	(45)	(153)	(0)	(30)	(0)	(0)	(162)
Other	0.0015	302	0	48	0	0	0	0	350
	(0.0028)	(655)	(0)	(76)	(0)	(0)	(0)	(0)	(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 (735)
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	0	154	35	0	128	0	317
	(0.0010)	(0)	(0)	(206)	(53)	(0)	(175)	(0)	(275)
Coho salmon	0.0011	34	16	0	0	37	208	13	308
	(0.0008)	(39)	(33)	(0)	(0)	(60)	(192)	(18)	(208)
Chinook salmon	0.0171	45	709	368	773	1,312	1,377	204	4,788
	(0.0044)	(58)	(367)	(239)	(431)	(649)	(569)	(163)	(1,074)
Rainbow trout	0.0033	67	39	73	244	86	26	390	925
	(0.0012)	(73)	(48)	(62)	(214)	(69)	(40)	(190)	(316)
Brown trout	0.0051	580	16	0	118	288	69	358	1,429
	(0.0025)	(525)	(22)	(0)	(146)	(222)	(83)	(289)	(661)
Lake trout	0.0055	0	186	425	419	519	0	0	1,549
	(0.0022)	(0)	(129)	(318)	(282)	(403)	(0)	(0)	(600)
Splake	<0.0001	0	4	0	0	0	0	0	4
	(<0.0001)	(0)	(8)	(0)	(0)	(0)	(0)	(0)	(8)
Rainbow smelt	0.4947	138,773	0	0	0	0	0	0	138,773
	(0.4053)	(112,255)	(0)	(0)	(0)	(0)	(0)	(0)	(112,255)
Northern pike	0.0038	0	632	26	119	170	129	0	1,076
	(0.0046)	(0)	(1,274)	(55)	(114)	(132)	(111)	(0)	(1,292)
Channel catfish	0.0046	0	0	38	221	943	90	0	1,292
	(0.0020)	(0)	(0)	(59)	(214)	(476)	(98)	(0)	(534)
White bass	<0.0001	0	0	0	0	14	0	0	14
	(<0.0001)	(0)	(0)	(0)	(0)	(24)	(0)	(0)	(24)
Rock bass	0.0005	0	11	0	0	125	0	0	136
	(0.0003)	(0)	(19)	(0)	(0)	(69)	(0)	(0)	(72)
Smallmouth bass	0.0003	0	0	0	40	32	0	0	72
	(0.0004)	(0)	(0)	(0)	(58)	(65)	(0)	(0)	(87)
Yellow perch	0.8216	17,022	7,246	45,882	59,013	47,424	49,203	4,691	230,481
	(0.1798)	(12,556)	(2,839)	(16,321)	(19,814)	(18,136)	(21,702)	(4,144)	(40,518)
Walleye	0.0062	159	3	163	81	896	320	124	1,746
	(0.0030)	(346)	(5)	(330)	(78)	(567)	(284)	(110)	(806)
Freshwater drum	0.0012	0	0	45	251	48	0	0	344
	(0.0016)	(0)	(0)	(83)	(451)	(38)	(0)	(0)	(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 (12,564)	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	30	550	271	11	0	0	862
	(0.0024)	(0)	(35)	(379)	(371)	(27)	(0)	(0)	(532)
Coho salmon	0.0005	0	0	0	69	10	28	0	107
	(0.0007)	(0)	(0)	(0)	(135)	(22)	(42)	(0)	(143)
Chinook salmon	0.0397	15	23	461	1,831	4,596	2,219	58	9,203
	(0.0197)	(43)	(30)	(580)	(2,099)	(3,271)	(1,121)	(134)	(4,089)
Rainbow trout	0.0046	0	24	117	676	112	131	11	1,071
	(0.0042)	(0)	(33)	(154)	(893)	(113)	(231)	(21)	(943)
Brown trout	0.0023	461	0	13	0	21	43	0	538
	(0.0027)	(615)	(0)	(26)	(0)	(45)	(77)	(0)	(622)
Brook trout	0.0001	0	0	0	0	15	0	0	15
	(0.0002)	(0)	(0)	(0)	(0)	(36)	(0)	(0)	(36)
Lake trout	0.0252	0	317	2,591	2,680	246	0	0	5,834
	(0.0123)	(0)	(252)	(1,332)	(2,133)	(312)	(0)	(0)	(2,547)
Channel catfish	0.0035	0	4	287	0	381	138	0	810
	(0.0034)	(0)	(9)	(359)	(0)	(655)	(185)	(0)	(770)
White bass	0.0003	0	0	0	63	0	0	0	63
	(0.0006)	(0)	(0)	(0)	(133)	(0)	(0)	(0)	(133)
Smallmouth bass	0.0003	0	0	0	63	0	0	0	63
	(0.0006)	(0)	(0)	(0)	(133)	(0)	(0)	(0)	(133)
Yellow perch	0.0001	0	14	0	0	0	0	0	14
	(0.0002)	(0)	(22)	(0)	(0)	(0)	(0)	(0)	(22)
Walleye	0.0035	0	106	278	0	386	53	0	823
	(0.0025)	(0)	(162)	(393)	(0)	(355)	(77)	(0)	(559)
Freshwater drum	0.0005	0	0	0	0	106	0	0	106
	(0.0010)	(0)	(0)	(0)	(0)	(214)	(0)	(0)	(214)
Lake whitefish	0.0004	0	0	0	94	0	0	0	94
	(0.0009)	(0)	(0)	(0)	(199)	(0)	(0)	(0)	(199)
Round whitefish	0.0042	0	0	0	0	0	38	943	981
	(0.0042)	(0)	(0)	(0)	(0)	(0)	(76)	(954)	(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	48	615	112	125	0	0	900
	(0.0035)	(65)	(582)	(110)	(103)	(0)	(0)	(605)
Coho salmon	0.0006	16	20	0	27	48	0	111
	(0.0006)	(36)	(45)	(0)	(57)	(82)	(0)	(115)
Chinook salmon	0.0747	35	132	1,824	3,900	5,620	1,947	13,458
	(0.0257)	(49)	(169)	(1,304)	(1,599)	(2,542)	(1,396)	(3,564)
Rainbow trout	0.0035	0	0	142	385	0	104	631
	(0.0022)	(0)	(0)	(152)	(258)	(0)	(209)	(365)
Brown trout	0.0018	0	0	38	23	51	221	333
	(0.0017)	(0)	(0)	(61)	(38)	(105)	(286)	(313)
Lake trout	0.0405	521	4,188	2,040	542	0	0	7,291
	(0.0222)	(535)	(3,429)	(1,159)	(280)	(0)	(0)	(3,670)
Channel catfish	0.0014	0	0	26	119	105	0	250
	(0.0014)	(0)	(0)	(44)	(151)	(180)	(0)	(239)
Yellow perch	0.0002	0	0	23	7	0	0	30
	(0.0003)	(0)	(0)	(49)	(15)	(0)	(0)	(51)
Walleye	0.0013	58	0	0	178	0	0	236
	(0.0013)	(152)	(0)	(0)	(164)	(0)	(0)	(224)
Round whitefish	<0.0001	0	0	0	0	7	0	7
	(<0.0001)	(0)	(0)	(0)	(0)	(15)	(0)	(15)
Total	0.1291	678	4,955	4,205	5,306	5,831	2,272	23,247
	(0.0403)	(563)	(3,482)	(1,757)	(1,663)	(2,552)	(1,440)	(5,185)
Angler hours		5,346	23,818	23,757	31,411	85,730	10,068	180,130
		(4,534)	(18,411)	(12,422)	(11,512)	(30,071)	(1,736)	(39,416)
Angler trips		1,300	5,339	4,879	6,772	17,780	1,990	38,060
		(1,222)	(3,925)	(2,580)	(2,470)	(6,352)	(532)	(8,384)
Angler days		1,235	4,886	4,562	5,750	15,852	1,769	34,054
		(1,196)	(3,773)	(2,411)	(2,119)	(5,914)	(504)	(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	172	18	24	20	0	29	0	263
	(0.0016)	(0)	(87)	(23)	(24)	(29)	(0)	(62)	(0)	(116)
Coho salmon	0.0015	0	11	0	66	29	0	0	0	106
	(0.0008)	(0)	(9)	(0)	(35)	(41)	(0)	(0)	(0)	(55)
Chinook salmon	0.0580	18	230	532	2,500	678	190	46	0	4,194
	(0.0103)	(21)	(79)	(193)	(553)	(277)	(173)	(51)	(0)	(677)
Rainbow trout	0.0092	15	24	48	324	64	0	58	135	668
	(0.0025)	(15)	(31)	(41)	(105)	(46)	(0)	(77)	(95)	(176)
Brown trout	0.0430	662	63	577	1,176	200	75	286	68	3,107
	(0.0079)	(273)	(34)	(195)	(301)	(168)	(56)	(176)	(52)	(519)
Lake trout	0.0053	0	198	54	96	32	0	0	0	380
	(0.0016)	(0)	(81)	(42)	(55)	(29)	(0)	(0)	(0)	(110)
Channel catfish	0.0005	0	0	0	35	0	0	0	0	35
	(0.0005)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	(0)	(35)
Walleye	0.0012	0	0	2	25	45	0	15	0	87
	(0.0008)	(0)	(0)	(5)	(19)	(48)	(0)	(31)	(0)	(60)
Freshwater drum	0.0001	0	0	0	5	0	0	0	0	5
	(0.0002)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(0)	(9)
Lake whitefish	0.0001	0	5	0	0	0	0	0	0	5
	(0.0002)	(0)	(10)	(0)	(0)	(0)	(0)	(0)	(0)	(10)
Other	0.0001	0	0	0	10	0	0	0	0	10
	(0.0002)	(0)	(0)	(0)	(19)	(0)	(0)	(0)	(0)	(19)
Total	0.1225	695	703	1,231	4,261	1,068	265	434	203	8,860
	(0.0154)	(274)	(151)	(282)	(644)	(336)	(182)	(211)	(108)	(891)
Angler hours		6,806	7,097	9,649	32,794	9,058	4,366	1,889	647	72,306
		(1,687)	(1,220)	(1,839)	(3,948)	(2,089)	(1,375)	(489)	(213)	(5,463)
Angler trips		1,906	1,687	2,177	5,640	1,883	1,198	740	309	15,540
		(456)	(292)	(421)	(704)	(438)	(385)	(194)	(110)	(1,164)
Angler days		1,906	1,687	2,177	5,640	1,883	1,198	740	309	15,540
		(456)	(292)	(421)	(704)	(438)	(385)	(194)	(110)	(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	10	58	155	85	16	0	324
	(0.0023)	(0)	(16)	(81)	(118)	(73)	(18)	(0)	(162)
Coho salmon	0.0009	0	0	0	13	0	58	0	71
	(0.0008)	(0)	(0)	(0)	(17)	(0)	(59)	(0)	(61)
Chinook salmon	0.1420	0	1	36	1,770	5,979	3,822	131	11,739
	(0.0630)	(0)	(2)	(45)	(954)	(3,318)	(1,863)	(93)	(3,924)
Rainbow trout	0.0057	0	15	9	71	65	0	309	469
	(0.0031)	(0)	(24)	(14)	(58)	(68)	(0)	(194)	(215)
Brown trout	0.0026	8	2	0	83	28	4	93	218
	(0.0017)	(12)	(3)	(0)	(80)	(44)	(8)	(81)	(123)
Brook trout	0.0001	0	0	0	12	0	0	0	12
	(0.0002)	(0)	(0)	(0)	(25)	(0)	(0)	(0)	(25)
Lake trout	0.0118	0	266	323	358	27	0	0	974
	(0.0069)	(0)	(183)	(361)	(285)	(39)	(0)	(0)	(497)
White bass	0.0001	0	7	0	0	0	0	0	7
	(0.0002)	(0)	(15)	(0)	(0)	(0)	(0)	(0)	(15)
Yellow perch	0.0017	0	0	143	0	0	0	0	143
	(0.0023)	(0)	(0)	(192)	(0)	(0)	(0)	(0)	(192)
Lake whitefish	0.0007	0	0	0	0	0	0	62	62
	(0.0014)	(0)	(0)	(0)	(0)	(0)	(0)	(124)	(124)
Round whitefish	0.0066	0	0	0	0	0	0	547	547
	(0.0048)	(0)	(0)	(0)	(0)	(0)	(0)	(366)	(366)
Total	0.1761	8	301	569	2,462	6,184	3,900	1,142	14,566
	(0.0705)	(12)	(186)	(419)	(1,008)	(3,320)	(1,864)	(450)	(3,991)
Angler hours		363	1,509	2,485	13,192	34,608	28,705	1,836	82,698
		(271)	(665)	(2,190)	(6,241)	(18,584)	(13,857)	(550)	(24,124)
Angler trips		226	480	709	3,336	7,193	6,342	496	18,782
		(123)	(195)	(602)	(1,589)	(3,839)	(3,070)	(141)	(5,208)
Angler days		205	461	680	2,986	6,424	5,726	471	16,953
		(114)	(188)	(572)	(1,421)	(3,423)	(2,802)	(135)	(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	0	5	1,159	1,789	0	2,953
	(0.0318)	(0)	(0)	(8)	(1,108)	(2,014)	(0)	(2,299)
Coho salmon	0.0084	0	19	40	439	126	0	624
	(0.0079)	(0)	(40)	(80)	(547)	(140)	(0)	(572)
Chinook salmon	0.1009	0	74	189	2,939	4,319	1	7,522
	(0.0381)	(0)	(81)	(110)	(1,642)	(1,781)	(4)	(2,426)
Brown trout	0.0054	0	0	135	0	255	11	401
	(0.0041)	(0)	(0)	(191)	(0)	(223)	(25)	(295)
Northern pike	0.0075	0	0	42	211	290	13	556
	(0.0077)	(0)	(0)	(71)	(312)	(458)	(26)	(559)
Brown bullhead	0.0014	0	0	16	85	0	0	101
	(0.0025)	(0)	(0)	(32)	(174)	(0)	(0)	(177)
Rock bass	0.0053	0	0	140	255	0	0	395
	(0.0075)	(0)	(0)	(189)	(522)	(0)	(0)	(555)
Yellow perch	0.0171	0	4	203	444	614	11	1,276
	(0.0194)	(0)	(6)	(197)	(776)	(1,182)	(25)	(1,428)
Other	0.0001	0	0	7	0	0	0	7
	(0.0002)	(0)	(0)	(15)	(0)	(0)	(0)	(15)
Total	0.1856	0	97	777	5,532	7,393	36	13,835
	(0.0625)	(0)	(91)	(369)	(2,286)	(2,984)	(44)	(3,778)
Angler hours		918	1,205	7,200	20,586	44,446	185	74,540
		(580)	(701)	(2,881)	(8,265)	(11,779)	(172)	(14,704)
Angler trips		339	231	1,363	4,670	14,706	73	21,382
		(199)	(144)	(557)	(1,891)	(4,178)	(70)	(4,627)
Angler days		339	196	1,055	3,472	12,644	72	17,778
		(199)	(131)	(446)	(1,440)	(3,891)	(70)	(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	0	18	316	2,350	2,439	0	5,123
	(0.0129)	(0)	(0)	(37)	(390)	(1,341)	(1,426)	(0)	(1,996)
Coho salmon	0.0010	0	0	0	151	10	14	0	175
	(0.0012)	(0)	(0)	(0)	(208)	(21)	(18)	(0)	(210)
Chinook salmon	0.0064	0	0	0	134	481	556	0	1,171
	(0.0035)	(0)	(0)	(0)	(202)	(331)	(417)	(0)	(569)
Atlantic salmon	<0.0001	0	0	0	0	0	9	0	9
	(<0.0001)	(0)	(0)	(0)	(0)	(0)	(19)	(0)	(19)
Brown trout	0.0025	0	53	78	180	106	48	0	465
	(0.0018)	(0)	(99)	(162)	(202)	(126)	(52)	(0)	(309)
Brook trout	0.0001	0	0	0	0	0	17	0	17
	(0.0002)	(0)	(0)	(0)	(0)	(0)	(34)	(0)	(34)
Northern pike	0.0322	0	492	1,652	1,002	1,765	931	27	5,869
	(0.0115)	(0)	(348)	(959)	(458)	(965)	(414)	(27)	(1,534)
Tiger musky	<0.0001	0	0	0	0	6	2	0	8
	(0)	(0)	(0)	(0)	(0)	(11)	(4)	(0)	(12)
Black bullhead	0.0274	0	0	0	716	3,484	785	17	5,002
	(0.0143)	(0)	(0)	(0)	(661)	(2,163)	(450)	(21)	(2,306)
Yellow bullhead	0.0110	0	64	1,802	133	0	0	0	1,999
	(0.0094)	(0)	(110)	(1,617)	(178)	(0)	(0)	(0)	(1,630)
Brown bullhead	0.0007	0	18	111	0	0	7	0	136
	(0.0012)	(0)	(36)	(226)	(0)	(0)	(15)	(0)	(229)
Channel catfish	0.0001	0	0	0	0	0	22	3	25
	(0.0002)	(0)	(0)	(0)	(0)	(0)	(45)	(6)	(45)
White perch	0.0006	0	0	118	0	0	0	0	118
	(0.0012)	(0)	(0)	(243)	(0)	(0)	(0)	(0)	(243)
Rock bass	0.0990	0	30	43	1,544	5,957	9,740	757	18,071
	(0.0350)	(0)	(61)	(88)	(1,324)	(2,810)	(3,410)	(360)	(4,628)
Pumpkinseed	0.0122	0	0	0	0	1,102	1,118	0	2,220
	(0.0076)	(0)	(0)	(0)	(0)	(963)	(820)	(0)	(1,265)
Bluegill	0.0010	0	0	0	13	0	47	118	178
	(0.0007)	(0)	(0)	(0)	(26)	(0)	(63)	(88)	(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	0	0	0	1,429	2,725	0	4,154
	(0.0123)	(0)	(0)	(0)	(0)	(3,058)	(2,707)	(0)	(4,084)
Coho salmon	0.0002	0	0	0	0	57	0	0	57
	(0.0004)	(0)	(0)	(0)	(0)	(116)	(0)	(0)	(116)
Chinook salmon	0.0031	0	0	0	361	486	143	50	1,040
	(0.0029)	(0)	(0)	(0)	(535)	(766)	(221)	(105)	(966)
Northern pike	0.0423	348	1,661	1,364	4,011	4,595	1,548	601	14,128
	(0.0157)	(609)	(1,174)	(1,170)	(3,008)	(2,884)	(1,344)	(606)	(4,760)
White sucker	0.0007	0	0	229	0	0	0	0	229
	(0.0014)	(0)	(0)	(469)	(0)	(0)	(0)	(0)	(469)
Redhorse (spp)	0.0002	67	0	0	0	0	0	0	67
	(0.0004)	(139)	(0)	(0)	(0)	(0)	(0)	(0)	(139)
Brown bullhead	0.0162	4,101	0	528	0	267	267	253	5,416
	(0.0171)	(5,574)	(0)	(610)	(0)	(571)	(404)	(332)	(5,660)
Channel catfish	0.0010	0	96	232	0	0	0	0	328
	(0.0011)	(0)	(201)	(288)	(0)	(0)	(0)	(0)	(351)
Rock bass	0.0388	0	938	4,672	1,987	2,638	2,453	285	12,973
	(0.0190)	(0)	(1,061)	(3,885)	(2,438)	(3,085)	(2,173)	(429)	(6,049)
Pumpkinseed	0.0006	190	0	0	0	0	0	0	190
	(0.0012)	(386)	(0)	(0)	(0)	(0)	(0)	(0)	(386)
Bluegill	0.0014	0	0	64	0	53	345	0	462
	(0.0022)	(0)	(0)	(130)	(0)	(106)	(710)	(0)	(730)
Longear sunfish	0.0058	0	0	0	1,942	0	0	0	1,942
	(0.0077)	(0)	(0)	(0)	(2,561)	(0)	(0)	(0)	(2,561)
Redear sunfish	0.0149	0	80	3,047	1,276	527	0	50	4,980
	(0.0191)	(0)	(168)	(5,689)	(2,702)	(767)	(0)	(105)	(6,348)
Smallmouth bass	0.0068	0	0	549	0	1,177	457	86	2,269
	(0.0045)	(0)	(0)	(777)	(0)	(1,087)	(556)	(179)	(1,458)
Largemouth bass	0.0002	0	69	0	0	0	0	0	69
	(0.0004)	(0)	(146)	(0)	(0)	(0)	(0)	(0)	(146)
Yellow perch	0.6591	2,496	78,400	2,185	5,877	15,549	97,461	18,171	220,139
	(0.2740)	(1,775)	(65,917)	(1,791)	(7,316)	(11,333)	(50,410)	(12,686)	(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	40	50	0	0	0	0	90
	(0.0001)	(0)	(82)	(103)	(0)	(0)	(0)	(0)	(132)
Black bullhead	0.0001	0	144	0	0	0	0	0	144
	(0.0002)	(0)	(243)	(0)	(0)	(0)	(0)	(0)	(243)
Yellow bullhead	0.0007	864	0	0	0	0	0	0	864
	(0.0011)	(1,321)	(0)	(0)	(0)	(0)	(0)	(0)	(1,321)
Brown bullhead	0.0069	44	148	78	2,071	0	6,785	0	9,126
	(0.0114)	(97)	(321)	(160)	(3,268)	(0)	(14,617)	(0)	(14,982)
Channel catfish	0.0483	1,129	5,280	5,079	4,030	1,075	39,764	7,665	64,022
	(0.0483)	(1,270)	(5,528)	(5,825)	(3,783)	(2,203)	(60,976)	(12,649)	(62,955)
White perch	0.0392	0	0	0	2,293	18,518	31,152	0	51,963
	(0.0379)	(0)	(0)	(0)	(3,215)	(20,461)	(44,724)	(0)	(49,287)
White bass	0.0988	2,267	14,649	18,830	14,961	27,749	52,460	158	131,074
	(0.0618)	(2,325)	(13,608)	(20,347)	(15,062)	(40,651)	(60,641)	(334)	(78,495)
Rock bass	0.0000	38	0	0	0	0	0	0	38
	(0)	(83)	(0)	(0)	(0)	(0)	(0)	(0)	(83)
Bluegill	0.0036	95	75	0	0	4,106	0	548	4,824
	(0.0066)	(208)	(155)	(0)	(0)	(8,690)	(0)	(1,157)	(8,771)
White crappie	0.0000	7	0	0	0	0	0	0	7
	(0)	(16)	(0)	(0)	(0)	(0)	(0)	(0)	(16)
Black crappie	0.0003	4	0	0	0	0	0	329	333
	(0.0006)	(8)	(0)	(0)	(0)	(0)	(0)	(694)	(694)
Yellow perch	0.2414	0	2,411	6,833	4,078	4,236	130,879	171,870	320,307
	(0.2702)	(0)	(3,267)	(5,447)	(4,709)	(4,726)	(109,144)	(336,434)	(353,815)
Walleye	0.4406	1,147	91,986	202,724	272,209	12,207	4,314	0	584,587
	(0.1272)	(1,171)	(43,569)	(75,812)	(97,652)	(8,388)	(6,492)	(0)	(131,512)
Freshwater drum	0.0156	1,707	5,836	1,891	4,992	350	5,883	0	20,659
	(0.0122)	(2,179)	(6,187)	(2,893)	(6,545)	(617)	(12,290)	(0)	(15,673)
Other	0.0004	153	428	0	0	0	0	0	581
	(0.0005)	(336)	(588)	(0)	(0)	(0)	(0)	(0)	(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)
Chinock 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	0	0	61	4	37	17	119
	(0.0093)	(0)	(0)	(0)	(98)	(9)	(52)	(35)	(117)
Chinook salmon	0.0003	0	0	0	0	0	4	0	4
	(0.0006)	(0)	(0)	(0)	(0)	(0)	(8)	(0)	(8)
Lake trout	0.2996	0	0	994	712	547	1,190	405	3,848
	(0.1016)	(0)	(0)	(524)	(413)	(388)	(644)	(320)	(1,055)
Northern pike	0.0018	0	0	0	0	23	0	0	23
	(0.0028)	(0)	(0)	(0)	(0)	(36)	(0)	(0)	(36)
Total	0.3110	0	0	994	773	574	1,231	422	3,994
	(0.1034)	(0)	(0)	(524)	(424)	(390)	(646)	(322)	(1,062)
Angler hours		0	0	3,531	2,628	1,356	4,690	639	12,844
		(0)	(0)	(1,042)	(1,295)	(654)	(1,798)	(374)	(2,562)
Angler trips		0	0	765	617	342	1,248	218	3,190
		(0)	(0)	(238)	(311)	(174)	(486)	(131)	(661)
Angler days		0	0	765	617	342	1,248	218	3,190
		(0)	(0)	(238)	(311)	(174)	(486)	(131)	(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	2	0	0	0	9	4	15
	(0.0024)	(0)	(4)	(0)	(0)	(0)	(15)	(9)	(18)
Chinook salmon	0.0040	0	1	18	0	11	0	0	30
	(0.0054)	(0)	(3)	(37)	(0)	(16)	(0)	(0)	(40)
Rainbow trout	0.0065	0	5	0	0	0	29	15	49
	(0.0088)	(0)	(10)	(0)	(0)	(0)	(62)	(21)	(66)
Brown trout	0.0001	0	1	0	0	0	0	0	1
	(0.0002)	(0)	(2)	(0)	(0)	(0)	(0)	(0)	(2)
Lake trout	0.2526	0	291	546	478	414	116	46	1,891
	(0.0828)	(0)	(239)	(283)	(279)	(212)	(100)	(79)	(526)
Northern pike	0.0003	0	0	0	0	0	2	0	2
	(0.0008)	(0)	(0)	(0)	(0)	(0)	(5)	(0)	(5)
Walleye	0.0016	0	0	0	0	12	0	0	12
	(0.0032)	(0)	(0)	(0)	(0)	(24)	(0)	(0)	(24)
Other	0.0005	0	4	0	0	0	0	0	4
	(0.0011)	(0)	(9)	(0)	(0)	(0)	(0)	(0)	(9)
Total	0.2677	0	304	564	478	437	156	65	2,004
	(0.0849)	(0)	(239)	(285)	(279)	(214)	(119)	(82)	(532)
Angler hours		0	807	2,259	2,257	1,432	501	229	7,485
		(0)	(291)	(796)	(786)	(486)	(292)	(161)	(1,297)
Angler trips		0	197	420	576	385	127	60	1,765
		(0)	(74)	(152)	(215)	(136)	(71)	(43)	(317)
Angler days		0	193	420	576	364	127	60	1,740
		(0)	(73)	(152)	(215)	(132)	(71)	(43)	(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	0	8	0	0	0	0	8
	(0.0056)	(0)	(0)	(17)	(0)	(0)	(0)	(0)	(17)
Lake trout	0.1944	0	0	404	200	0	0	0	604
	(0.1103)	(0)	(0)	(279)	(128)	(0)	(0)	(0)	(307)
Lake whitefish	0.0006	0	0	2	0	0	0	0	2
	(0.0012)	(0)	(0)	(4)	(0)	(0)	(0)	(0)	(4)
Total	0.1976	0	0	414	200	0	0	0	614
	(0.1110)	(0)	(0)	(280)	(128)	(0)	(0)	(0)	(308)
Angler hours		0	0	2,312	582	213	0	0	3,107
		(0)	(0)	(742)	(216)	(138)	(0)	(0)	(785)
Angler trips		0	0	588	189	172	0	0	949
		(0)	(0)	(198)	(77)	(118)	(0)	(0)	(243)
Angler days		0	0	550	181	163	0	0	894
		(0)	(0)	(188)	(72)	(117)	(0)	(0)	(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	1,213	305	19	0	7	197	141	1	1,883
	(0.0258)	(483)	(149)	(20)	(0)	(14)	(133)	(92)	(2)	(531)
Chinook salmon	0.0080	17	143	2	0	0	9	0	0	171
	(0.0052)	(29)	(105)	(3)	(0)	(0)	(17)	(0)	(0)	(110)
Rainbow trout	0.0105	165	30	0	0	0	0	20	9	224
	(0.0050)	(96)	(25)	(0)	(0)	(0)	(0)	(35)	(15)	(106)
Brown trout	0.0023	11	37	0	0	0	0	0	0	48
	(0.0019)	(14)	(38)	(0)	(0)	(0)	(0)	(0)	(0)	(40)
Lake trout	0.0448	114	355	263	95	27	21	78	0	953
	(0.0123)	(108)	(154)	(121)	(65)	(42)	(43)	(71)	(0)	(251)
Splake	0.0035	3	34	10	0	7	0	10	11	75
	(0.0027)	(5)	(44)	(19)	(0)	(14)	(0)	(14)	(22)	(57)
Northern pike	0.0009	0	0	5	9	0	0	6	0	20
	(0.0010)	(0)	(0)	(7)	(19)	(0)	(0)	(11)	(0)	(23)
Yellow perch	0.0859	780	428	394	133	39	55	0	0	1,829
	(0.0667)	(1,155)	(536)	(580)	(148)	(60)	(111)	(0)	(0)	(1,413)
Lake whitefish	0.0191	239	48	119	0	0	0	0	0	406
	(0.0154)	(291)	(76)	(124)	(0)	(0)	(0)	(0)	(0)	(325)
Round whitefish	0.0035	17	8	50	0	0	0	0	0	75
	(0.0050)	(34)	(12)	(100)	(0)	(0)	(0)	(0)	(0)	(106)
Total	0.2669	2,559	1,388	862	237	80	282	255	21	5,684
	(0.0768)	(1,294)	(595)	(614)	(163)	(76)	(179)	(123)	(27)	(1,577)
Angler hours		6,313	3,861	3,039	1,818	1,113	3,271	1,676	203	21,294
		(1,146)	(602)	(567)	(448)	(221)	(583)	(310)	(66)	(1,639)
Angler trips		1,890	900	606	382	246	997	821	135	5,977
		(357)	(158)	(125)	(103)	(58)	(183)	(164)	(49)	(495)
Angler days		1,848	892	606	382	246	997	821	135	5,927
		(353)	(158)	(125)	(103)	(58)	(183)	(164)	(49)	(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	0	0	4	0	0	0	0	4
	(<0.0001)	(0)	(0)	(0)	(9)	(0)	(0)	(0)	(0)	(9)
Chinook salmon	0.0460	159	0	0	22	28	390	6,815	7,816	15,230
	(0.0098)	(302)	(0)	(0)	(47)	(57)	(204)	(1,802)	(2,511)	(3,113)
Rainbow trout	0.0321	3,322	0	0	82	1,676	306	2,559	2,673	10,618
	(0.0102)	(2,515)	(0)	(0)	(99)	(1,028)	(199)	(1,450)	(1,249)	(3,331)
Brown trout	0.0023	60	0	0	25	57	74	535	3	754
	(0.0014)	(84)	(0)	(0)	(36)	(60)	(84)	(446)	(7)	(467)
Brook trout	<0.0001	0	0	0	0	15	0	0	0	15
	(<0.0001)	(0)	(0)	(0)	(0)	(30)	(0)	(0)	(0)	(30)
Lake trout	0.0005	0	0	0	16	0	0	0	147	163
	(0.0009)	(0)	(0)	(0)	(24)	(0)	(0)	(0)	(296)	(297)
Northern pike	0.0001	0	0	0	0	17	0	0	0	17
	(0.0002)	(0)	(0)	(0)	(0)	(35)	(0)	(0)	(0)	(35)
White sucker	0.0034	975	0	0	0	136	0	0	0	1,111
	(0.0056)	(1,810)	(0)	(0)	(0)	(273)	(0)	(0)	(0)	(1,830)
Redhorse (spp)	0.0032	529	0	0	304	0	214	0	0	1,047
	(0.0028)	(764)	(0)	(0)	(421)	(0)	(236)	(0)	(0)	(904)
Black bullhead	0.0003	0	0	0	43	62	0	0	0	105
	(0.0004)	(0)	(0)	(0)	(86)	(94)	(0)	(0)	(0)	(127)
Yellow bullhead	0.0001	0	0	0	18	0	17	0	0	35
	(0.0001)	(0)	(0)	(0)	(36)	(0)	(35)	(0)	(0)	(50)
Channel catfish	0.0134	0	0	0	970	1,876	1,021	391	164	4,422
	(0.0037)	(0)	(0)	(0)	(553)	(820)	(468)	(427)	(147)	(1,184)
White bass	0.0002	0	0	0	0	76	0	0	0	76
	(0.0004)	(0)	(0)	(0)	(0)	(154)	(0)	(0)	(0)	(154)
Rock bass	0.0009	0	0	0	178	113	10	0	0	301
	(0.0009)	(0)	(0)	(0)	(250)	(147)	(14)	(0)	(0)	(290)
Bluegill	0.0030	0	0	0	228	215	382	166	0	991
	(0.0028)	(0)	(0)	(0)	(392)	(256)	(736)	(333)	(0)	(934)
Longear sunfish	0.0003	0	0	0	101	0	0	0	0	101
	(0.0004)	(0)	(0)	(0)	(143)	(0)	(0)	(0)	(0)	(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	0	0	145	0	0	0	0	145
	(0.0008)	(0)	(0)	(0)	(290)	(0)	(0)	(0)	(0)	(290)
Smallmouth bass	0.0033	0	0	0	307	192	440	139	4	1,082
	(0.0018)	(0)	(0)	(0)	(222)	(153)	(510)	(131)	(8)	(592)
White crappie	0.0001	0	0	0	0	0	0	0	38	38
	(0.0002)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(78)	(78)
Yellow perch	0.0135	0	0	0	3,762	721	0	0	0	4,483
	(0.0124)	(0)	(0)	(0)	(4,018)	(849)	(0)	(0)	(0)	(4,107)
Walleye	0.0068	0	0	0	699	912	572	36	45	2,264
	(0.0024)	(0)	(0)	(0)	(389)	(527)	(427)	(50)	(91)	(789)
Freshwater drum	0.0129	0	0	0	1,097	1,886	1,234	55	10	4,282
	(0.0051)	(0)	(0)	(0)	(856)	(1,088)	(923)	(80)	(20)	(1,666)
Other	0.0026	0	0	0	730	15	87	13	31	876
	(0.0023)	(0)	(0)	(0)	(769)	(23)	(125)	(27)	(52)	(782)
Total	0.1455	5,045	0	0	8,731	7,997	4,747	10,709	10,931	48,160
	(0.0228)	(3,207)	(0)	(0)	(4,301)	(2,034)	(1,489)	(2,423)	(2,827)	(7,000)
Angler hours		26,324	0	0	28,731	40,307	32,037	99,107	104,598	331,104
		(6,518)	(0)	(0)	(4,587)	(6,027)	(3,743)	(8,236)	(13,792)	(19,285)
Angler trips		6,807	0	0	6,082	8,082	6,808	17,934	17,728	63,441
		(1,769)	(0)	(0)	(1,005)	(1,192)	(863)	(1,914)	(2,590)	(4,084)
Angler days		6,328	0	0	5,549	7,443	6,102	16,540	15,825	57,787
		(1,731)	(0)	(0)	(1,000)	(1,173)	(831)	(1,864)	(2,473)	(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	0	0	0	0	0	105	0	105
	(0.0026)	(0)	(0)	(0)	(0)	(0)	(0)	(210)	(0)	(210)
Coho salmon	0.0126	0	0	0	0	0	0	483	536	1,019
	(0.0133)	(0)	(0)	(0)	(0)	(0)	(0)	(526)	(933)	(1,071)
Chinook salmon	0.0259	0	0	0	0	0	0	782	1,318	2,100
	(0.0146)	(0)	(0)	(0)	(0)	(0)	(0)	(628)	(989)	(1,172)
Rainbow trout	0.0658	1,297	1,206	0	0	0	0	195	2,637	5,335
	(0.0231)	(597)	(1,119)	(0)	(0)	(0)	(0)	(230)	(1,279)	(1,816)
Brown trout	0.0021	0	0	0	0	0	0	171	0	171
	(0.0042)	(0)	(0)	(0)	(0)	(0)	(0)	(342)	(0)	(342)
White sucker	0.0028	10	220	0	0	0	0	0	0	230
	(0.0035)	(20)	(283)	(0)	(0)	(0)	(0)	(0)	(0)	(284)
Redhorse (spp)	0.0028	61	163	0	0	0	0	0	0	224
	(0.0044)	(122)	(329)	(0)	(0)	(0)	(0)	(0)	(0)	(351)
Walleye	0.0058	0	0	0	0	0	0	120	352	472
	(0.0066)	(0)	(0)	(0)	(0)	(0)	(0)	(171)	(504)	(532)
Other	0.0040	0	150	0	0	0	0	171	0	321
	(0.0053)	(0)	(251)	(0)	(0)	(0)	(0)	(342)	(0)	(424)
Total	0.1231	1,368	1,739	0	0	0	0	2,027	4,843	9,977
	(0.0334)	(610)	(1,226)	(0)	(0)	(0)	(0)	(1,015)	(1,934)	(2,578)
Angler hours		13,791	15,780	0	0	0	0	24,732	26,735	81,038
		(1,143)	(4,853)	(0)	(0)	(0)	(0)	(1,786)	(4,142)	(6,723)
Angler trips		4,090	5,192	0	0	0	0	6,855	8,008	24,145
		(508)	(1,750)	(0)	(0)	(0)	(0)	(1,052)	(1,579)	(2,631)
Angler days		3,350	4,387	0	0	0	0	6,407	7,677	21,821
		(462)	(1,587)	(0)	(0)	(0)	(0)	(1,072)	(1,536)	(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	0	0	0	0	0	360	2,507	2,867
	(0.0348)	(0)	(0)	(0)	(0)	(0)	(0)	(721)	(2,404)	(2,510)
Rainbow trout	0.0066	55	425	0	0	0	0	0	0	480
	(0.0068)	(83)	(485)	(0)	(0)	(0)	(0)	(0)	(0)	(492)
Yellow perch	0.0041	0	299	0	0	0	0	0	0	299
	(0.0082)	(0)	(600)	(0)	(0)	(0)	(0)	(0)	(0)	(600)
Total	0.0503	55	724	0	0	0	0	360	2,507	3,646
	(0.0365)	(83)	(772)	(0)	(0)	(0)	(0)	(721)	(2,404)	(2,627)
Angler hours		7,252	20,194	0	0	0	0	10,884	34,180	72,510
		(692)	(2,367)	(0)	(0)	(0)	(0)	(717)	(6,310)	(6,813)
Angler trips		2,317	5,552	0	0	0	0	2,518	7,932	18,319
		(744)	(1,396)	(0)	(0)	(0)	(0)	(714)	(1,629)	(2,380)
Angler days		2,257	5,552	0	0	0	0	2,518	7,932	18,259
		(748)	(1,396)	(0)	(0)	(0)	(0)	(714)	(1,629)	(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	0	0	0	0	350	0	350
	(0.0026)	(0)	(0)	(0)	(0)	(0)	(700)	(0)	(700)
Coho salmon	0.0005	0	0	0	0	145	0	0	145
	(0.0010)	(0)	(0)	(0)	(0)	(304)	(0)	(0)	(304)
Chinook salmon	0.0785	29	0	0	0	858	14,483	5,606	20,976
	(0.0303)	(45)	(0)	(0)	(0)	(1,094)	(6,228)	(4,810)	(7,945)
Rainbow trout	0.0310	3,999	420	16	110	0	643	3,092	8,280
	(0.0109)	(1,525)	(496)	(35)	(80)	(0)	(737)	(2,254)	(2,864)
Brown trout	0.0015	0	149	0	0	243	0	0	392
	(0.0019)	(0)	(40)	(0)	(0)	(499)	(0)	(0)	(501)
Northern pike	0.0014	0	108	12	110	136	0	0	366
	(0.0012)	(0)	(70)	(25)	(80)	(286)	(0)	(0)	(306)
White sucker	0.0092	1,961	0	504	0	0	0	0	2,465
	(0.0080)	(1,823)	(0)	(1,093)	(0)	(0)	(0)	(0)	(2,126)
Redhorse (spp)	0.0032	846	0	22	0	0	0	0	868
	(0.0032)	(860)	(0)	(47)	(0)	(0)	(0)	(0)	(861)
Smallmouth bass	0.0035	0	0	63	589	272	0	0	924
	(0.0031)	(0)	(0)	(104)	(580)	(572)	(0)	(0)	(821)
Yellow perch	0.0162	4,316	0	0	0	0	0	0	4,316
	(0.0268)	(7,123)	(0)	(0)	(0)	(0)	(0)	(0)	(7,123)
Walleye	0.0001	22	0	0	0	0	0	0	22
	(0.0002)	(45)	(0)	(0)	(0)	(0)	(0)	(0)	(45)
Other	0.0035	935	0	0	0	0	0	0	935
	(0.0071)	(1,890)	(0)	(0)	(0)	(0)	(0)	(0)	(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	0	0	0	232	371	0	603
	(0.0099)	(0)	(0)	(0)	(0)	(475)	(568)	(0)	(740)
Chinook salmon	0.0828	0	0	0	0	476	5,281	470	6,227
	(0.0514)	(0)	(0)	(0)	(0)	(436)	(3,668)	(657)	(3,752)
Rainbow trout	0.0070	0	0	0	0	0	0	526	526
	(0.0089)	(0)	(0)	(0)	(0)	(0)	(0)	(666)	(666)
Northern pike	0.0046	0	0	0	0	345	0	0	345
	(0.0050)	(0)	(0)	(0)	(0)	(373)	(0)	(0)	(373)
White sucker	0.0042	0	0	0	278	36	0	0	314
	(0.0079)	(0)	(0)	(0)	(582)	(75)	(0)	(0)	(587)
White bass	0.0057	0	0	0	0	0	431	0	431
	(0.0115)	(0)	(0)	(0)	(0)	(0)	(868)	(0)	(868)
Bluegill	0.0124	0	73	0	321	535	0	0	929
	(0.0094)	(0)	(157)	(0)	(223)	(632)	(0)	(0)	(688)
Smallmouth bass	0.0029	0	0	0	0	220	0	0	220
	(0.0048)	(0)	(0)	(0)	(0)	(366)	(0)	(0)	(366)
Black crappie	0.0010	0	73	0	0	0	0	0	73
	(0.0022)	(0)	(157)	(0)	(0)	(0)	(0)	(0)	(157)
Yellow perch	0.1608	864	5,323	0	0	2,673	3,232	0	12,092
	(0.1422)	(1,757)	(7,043)	(0)	(0)	(4,012)	(6,508)	(0)	(10,542)
Total	0.2894	864	5,469	0	599	4,517	9,315	996	21,760
	(0.1564)	(1,757)	(7,046)	(0)	(623)	(4,146)	(7,542)	(936)	(11,317)
Angler hours		294	4,680	0	3,727	15,833	43,645	7,020	75,199
		(131)	(1,414)	(0)	(1,371)	(5,171)	(9,506)	(1,182)	(11,063)
Angler trips		107	1,534	0	1,110	3,991	8,531	1,462	16,735
		(71)	(696)	(0)	(428)	(1,352)	(2,016)	(359)	(2,587)
Angler days		107	1,484	0	974	3,933	8,224	1,462	16,184
		(71)	(692)	(0)	(415)	(1,338)	(1,952)	(359)	(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	0	0	0	0	131	108	239
	(0.0049)	(0)	(0)	(0)	(0)	(0)	(174)	(84)	(193)
Chinook salmon	0.0728	0	0	0	0	0	910	1,990	2,900
	(0.0343)	(0)	(0)	(0)	(0)	(0)	(998)	(904)	(1,347)
Rainbow trout	0.0303	100	0	0	0	0	399	708	1,207
	(0.0166)	(126)	(0)	(0)	(0)	(0)	(446)	(461)	(654)
Brown trout	0.0210	670	0	0	0	0	0	165	835
	(0.0346)	(1,344)	(0)	(0)	(0)	(0)	(0)	(297)	(1,376)
White sucker	0.0057	226	0	0	0	0	0	0	226
	(0.0115)	(454)	(0)	(0)	(0)	(0)	(0)	(0)	(454)
Total	0.1357	996	0	0	0	0	1,440	2,971	5,407
	(0.0537)	(1,424)	(0)	(0)	(0)	(0)	(1,107)	(1,061)	(2,093)
Angler hours		4,386	0	0	0	0	16,116	19,351	39,853
		(543)	(0)	(0)	(0)	(0)	(2,413)	(2,099)	(3,244)
Angler trips		983	0	0	0	0	3,792	4,661	9,436
		(288)	(0)	(0)	(0)	(0)	(829)	(627)	(1,079)
Angler days		652	0	0	0	0	1,908	2,578	5,138
		(231)	(0)	(0)	(0)	(0)	(507)	(396)	(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	0	0	0	0	7	0	7
	(0.0004)	(0)	(0)	(0)	(0)	(0)	(15)	(0)	(15)
Coho salmon	0.1097	30	0	0	0	0	2,733	877	3,640
	(0.0337)	(61)	(0)	(0)	(0)	(0)	(985)	(385)	(1,059)
Chinook salmon	0.0105	0	16	0	0	0	153	181	350
	(0.0051)	(0)	(32)	(0)	(0)	(0)	(124)	(108)	(168)
Rainbow trout	0.0767	671	47	0	0	0	1,224	603	2,545
	(0.0551)	(398)	(95)	(0)	(0)	(0)	(1,674)	(559)	(1,812)
Brown trout	0.0002	0	0	0	0	0	0	7	7
	(0.0004)	(0)	(0)	(0)	(0)	(0)	(0)	(15)	(15)
Northern pike	0.0046	0	0	0	0	0	153	0	153
	(0.0093)	(0)	(0)	(0)	(0)	(0)	(309)	(0)	(309)
White sucker	0.0106	352	0	0	0	0	0	0	352
	(0.0148)	(491)	(0)	(0)	(0)	(0)	(0)	(0)	(491)
Rock bass	0.0197	0	40	0	0	0	613	0	653
	(0.0374)	(0)	(82)	(0)	(0)	(0)	(1,236)	(0)	(1,239)
Smallmouth bass	0.0025	0	0	0	0	0	0	84	84
	(0.0052)	(0)	(0)	(0)	(0)	(0)	(0)	(174)	(174)
Total	0.2347	1,053	103	0	0	0	4,883	1,752	7,791
	(0.0792)	(635)	(130)	(0)	(0)	(0)	(2,326)	(709)	(2,517)
Angler hours		7,291	791	0	0	0	16,728	8,383	33,193
		(986)	(244)	(0)	(0)	(0)	(2,604)	(1,637)	(3,239)
Angler trips		2,251	344	0	0	0	3,995	2,183	8,773
		(426)	(128)	(0)	(0)	(0)	(708)	(488)	(968)
Angler days		1,121	186	0	0	0	3,146	1,891	6,344
		(247)	(99)	(0)	(0)	(0)	(635)	(475)	(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	0	0	0	0	159	0	159
	(0.0210)	(0)	(0)	(0)	(0)	(0)	(324)	(0)	(324)
Chinook salmon	0.0694	0	0	0	0	179	897	0	1,076
	(0.0407)	(0)	(0)	(0)	(0)	(366)	(490)	(0)	(612)
Rainbow trout	0.0550	141	112	43	135	357	65	0	853
	(0.0512)	(111)	(96)	(90)	(183)	(732)	(133)	(0)	(785)
Brown trout	0.0010	15	0	0	0	0	0	0	15
	(0.0020)	(30)	(0)	(0)	(0)	(0)	(0)	(0)	(30)
Brook trout	0.0205	7	229	81	0	0	0	0	317
	(0.0322)	(15)	(466)	(169)	(0)	(0)	(0)	(0)	(496)
Rock bass	0.0695	0	0	1,078	0	0	0	0	1,078
	(0.1516)	(0)	(0)	(2,346)	(0)	(0)	(0)	(0)	(2,346)
Smallmouth bass	0.0046	0	71	0	0	0	0	0	71
	(0.0055)	(0)	(85)	(0)	(0)	(0)	(0)	(0)	(85)
Other	0.0094	0	29	116	0	0	0	0	145
	(0.0168)	(0)	(59)	(251)	(0)	(0)	(0)	(0)	(258)
Total	0.2396	163	441	1,318	135	536	1,121	0	3,714
	(0.1730)	(116)	(487)	(2,367)	(183)	(818)	(602)	(0)	(2,630)
Angler hours		1,387	2,461	1,341	2,498	2,707	5,106	1,738	15,500
		(405)	(604)	(709)	(644)	(901)	(1,572)	(651)	(2,175)
Angler trips		251	574	480	673	1,017	1,958	0	4,953
		(83)	(163)	(287)	(207)	(343)	(628)	(0)	(819)
Angler days		251	574	480	673	1,017	1,958	0	4,953
		(83)	(163)	(287)	(207)	(343)	(628)	(0)	(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	99	0	0	0	0	0	0	99
	(0.0023)	(203)	(0)	(0)	(0)	(0)	(0)	(0)	(203)
Brown bullhead	0.0160	12	1,473	0	0	0	0	0	1,485
	(0.0291)	(24)	(2,594)	(0)	(0)	(0)	(0)	(0)	(2,594)
Channel catfish	0.0116	23	1,050	0	0	0	0	0	1,073
	(0.0216)	(33)	(1,929)	(0)	(0)	(0)	(0)	(0)	(1,929)
Largemouth bass	0.0547	0	5,084	0	0	0	0	0	5,084
	(0.0863)	(0)	(7,611)	(0)	(0)	(0)	(0)	(0)	(7,611)
White crappie	0.0116	0	1,081	0	0	0	0	0	1,081
	(0.0274)	(0)	(2,495)	(0)	(0)	(0)	(0)	(0)	(2,495)
Yellow perch	0.2252	19,765	1,153	0	0	0	0	0	20,918
	(0.4085)	(36,401)	(2,404)	(0)	(0)	(0)	(0)	(0)	(36,480)
Freshwater drum	0.0269	0	2,499	0	0	0	0	0	2,499
	(0.0400)	(0)	(3,502)	(0)	(0)	(0)	(0)	(0)	(3,502)
Other	0.0001	12	0	0	0	0	0	0	12
	(0.0002)	(24)	(0)	(0)	(0)	(0)	(0)	(0)	(24)
Total	0.3472	19,911	12,340	0	0	0	0	0	32,251
	(0.4409)	(36,402)	(9,625)	(0)	(0)	(0)	(0)	(0)	(37,653)
Angler hours		27,961	64,916	0	0	0	0	0	92,877
		(8,598)	(45,587)	(0)	(0)	(0)	(0)	(0)	(46,391)
Angler trips		6,725	17,122	0	0	0	0	0	23,847
		(1,910)	(8,713)	(0)	(0)	(0)	(0)	(0)	(8,920)
Angler days		6,725	17,122	0	0	0	0	0	23,847
		(1,910)	(8,713)	(0)	(0)	(0)	(0)	(0)	(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	262	0	0	0	0	34	22	3	321
	(0.0015)	(0)	(286)	(0)	(0)	(0)	(0)	(70)	(36)	(7)	(297)
White sucker	0.0003	7	60	0	0	0	0	0	0	0	67
	(0.0006)	(14)	(123)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(124)
Yellow bullhead	0.0012	219	0	0	0	0	0	22	0	0	241
	(0.0019)	(367)	(0)	(0)	(0)	(0)	(0)	(44)	(0)	(0)	(370)
Brown bullhead	0.0073	1,350	0	0	0	0	0	109	0	0	1,459
	(0.0105)	(2,064)	(0)	(0)	(0)	(0)	(0)	(222)	(0)	(0)	(2,076)
Channel catfish	0.0008	41	27	0	0	0	0	96	0	0	164
	(0.0009)	(83)	(57)	(0)	(0)	(0)	(0)	(140)	(0)	(0)	(172)
White perch	0.0005	0	96	0	0	0	0	0	0	0	96
	(0.0008)	(0)	(153)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(153)
White bass	0.1048	407	20,478	0	0	0	0	0	0	0	20,885
	(0.0502)	(350)	(9,241)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(9,248)
Rock bass	0.0011	0	206	0	0	0	0	0	12	0	218
	(0.0015)	(0)	(286)	(0)	(0)	(0)	(0)	(0)	(25)	(0)	(287)
Pumpkinseed	0.0009	0	181	0	0	0	0	0	0	0	181
	(0.0016)	(0)	(322)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(322)
Smallmouth bass	0.0001	0	0	0	0	0	0	19	5	0	24
	(0.0002)	(0)	(0)	(0)	(0)	(0)	(0)	(39)	(11)	(0)	(41)
White crappie	0.0002	0	0	0	0	0	0	33	0	0	33
	(0.0004)	(0)	(0)	(0)	(0)	(0)	(0)	(67)	(0)	(0)	(67)
Black crappie	0.0189	0	1,304	0	0	0	0	2,128	343	0	3,775
	(0.0152)	(0)	(1,626)	(0)	(0)	(0)	(0)	(2,425)	(507)	(0)	(2,963)
Yellow perch	0.0100	793	237	0	0	0	0	563	394	0	1,987
	(0.0074)	(1,191)	(266)	(0)	(0)	(0)	(0)	(562)	(504)	(0)	(1,435)
Walleye	0.1076	5,502	3,100	0	0	0	0	7,527	5,061	238	21,428
	(0.0304)	(2,174)	(1,590)	(0)	(0)	(0)	(0)	(2,747)	(2,561)	(190)	(4,625)
Freshwater drum	0.0081	94	1,474	0	0	0	0	46	0	0	1,614
	(0.0069)	(192)	(1,334)	(0)	(0)	(0)	(0)	(94)	(0)	(0)	(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	0	0	0	0	0	0	3	3
	(<0.0001)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7)	(7)
Coho salmon	<0.0001	0	0	0	0	0	4	0	0	4
	(<0.0001)	(0)	(0)	(0)	(0)	(0)	(7)	(0)	(0)	(7)
Chinook salmon	0.0499	116	75	9	0	199	766	2,294	3,957	7,416
	(0.0114)	(116)	(67)	(17)	(0)	(169)	(324)	(992)	(1,286)	(1,670)
Rainbow trout	0.0342	555	2,636	472	0	143	58	0	1,217	5,081
	(0.0061)	(308)	(637)	(276)	(0)	(134)	(96)	(0)	(446)	(896)
Brown trout	0.0010	34	55	0	0	0	5	0	59	153
	(0.0008)	(51)	(68)	(0)	(0)	(0)	(9)	(0)	(97)	(129)
Lake trout	0.0001	0	0	9	0	0	0	0	0	9
	(0.0002)	(0)	(0)	(17)	(0)	(0)	(0)	(0)	(0)	(17)
Northern pike	0.0005	0	0	0	24	51	0	0	0	75
	(0.0005)	(0)	(0)	(0)	(39)	(60)	(0)	(0)	(0)	(72)
Redhorse (spp)	0.0005	0	68	0	0	0	0	0	0	68
	(0.0010)	(0)	(135)	(0)	(0)	(0)	(0)	(0)	(0)	(135)
Channel catfish	0.0602	0	0	450	2,344	3,430	1,558	1,118	52	8,952
	(0.0161)	(0)	(0)	(380)	(1,177)	(1,383)	(1,202)	(868)	(105)	(2,377)
Smallmouth bass	0.0007	0	0	0	13	0	89	0	0	102
	(0.0011)	(0)	(0)	(0)	(20)	(0)	(164)	(0)	(0)	(165)
Yellow perch	0.0005	0	0	0	0	0	48	30	0	78
	(0.0007)	(0)	(0)	(0)	(0)	(0)	(96)	(61)	(0)	(114)
Walleye	0.0054	0	0	315	289	194	12	0	0	810
	(0.0019)	(0)	(0)	(165)	(188)	(138)	(19)	(0)	(0)	(286)
Freshwater drum	0.0019	0	0	0	17	153	38	73	0	281
	(0.0014)	(0)	(0)	(0)	(34)	(182)	(58)	(84)	(0)	(211)
Burbot	0.0001	9	0	9	0	0	0	0	0	18
	(0.0001)	(17)	(0)	(18)	(0)	(0)	(0)	(0)	(0)	(25)
Other	0.0012	7	0	157	0	0	12	0	0	176
	(0.0014)	(14)	(0)	(206)	(0)	(0)	(24)	(0)	(0)	(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	12	0	124	1,409	0	1,545
	(0.0078)	(0)	(24)	(0)	(161)	(1,082)	(0)	(1,094)
Coho salmon	0.0005	36	11	0	32	0	0	79
	(0.0006)	(55)	(15)	(0)	(66)	(0)	(0)	(87)
Chinook salmon	0.0252	0	0	138	1,467	1,909	108	3,622
	(0.0120)	(0)	(0)	(280)	(1,053)	(1,141)	(131)	(1,583)
Rainbow trout	0.0138	891	297	637	141	0	24	1,990
	(0.0080)	(966)	(206)	(413)	(223)	(0)	(51)	(1,095)
Atlantic salmon	<0.0001	0	6	0	0	0	0	6
	(<0.0001)	(0)	(12)	(0)	(0)	(0)	(0)	(12)
Brown trout	0.0021	23	85	200	0	0	0	308
	(0.0022)	(48)	(79)	(297)	(0)	(0)	(0)	(311)
Lake trout	0.0014	0	0	203	0	0	0	203
	(0.0028)	(0)	(0)	(411)	(0)	(0)	(0)	(411)
Rainbow smelt	0.0005	0	66	0	0	0	0	66
	(0.0008)	(0)	(111)	(0)	(0)	(0)	(0)	(111)
Northern pike	0.0024	6	197	0	56	0	90	349
	(0.0017)	(11)	(196)	(0)	(117)	(0)	(86)	(244)
White sucker	0.0018	0	61	0	0	0	193	254
	(0.0022)	(0)	(102)	(0)	(0)	(0)	(295)	(312)
Redhorse (spp)	0.0004	0	61	0	0	0	0	61
	(0.0006)	(0)	(93)	(0)	(0)	(0)	(0)	(93)
Black bullhead	0.0021	0	62	0	239	0	0	301
	(0.0036)	(0)	(123)	(0)	(498)	(0)	(0)	(513)
Brown bullhead	0.0011	155	0	0	0	0	0	155
	(0.0023)	(320)	(0)	(0)	(0)	(0)	(0)	(320)
Channel catfish	0.0111	0	0	0	385	1,205	5	1,595
	(0.0103)	(0)	(0)	(0)	(436)	(1,390)	(10)	(1,457)
White bass	0.0002	22	0	0	0	0	0	22
	(0.0004)	(46)	(0)	(0)	(0)	(0)	(0)	(46)
Rock bass	0.0051	22	29	168	424	71	21	735
	(0.0053)	(46)	(60)	(245)	(697)	(149)	(31)	(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 (0.9752)	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)	4,663 (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 Sebewaing 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	0.0059 (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)