



**STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES**

TR2006-3

October 2006

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Michigan Waters of the Great Lakes, 2001**

**Gerald P. Rakoczy
and
Donna L. Wesander**



MICHIGAN DEPARTMENT OF NATURAL RESOURCES FISHERIES DIVISION

Fisheries Technical Report 2006-3
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Printed under authority of Michigan Department of Natural Resources
Total number of copies printed 100 — Total cost \$333.95 — Cost per copy \$3.34



Suggested Citation Format

Rakoczy, G. P., and D. L. Wesander. 2006. Charter boat catch and effort from the Michigan waters of the Great Lakes, 2001. Michigan Department of Natural Resources, Fisheries Technical Report 2006-3, Ann Arbor.

Charter Boat Catch and Effort from the Michigan Waters of the Great Lakes, 2001

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Abstract.—Public Act 451 (Part 445) of 1994 requires all charter boat operators fishing state of Michigan waters to report sportfishing catch and effort to the Michigan Department of Natural Resources. The objective of the catch and activity reporting system is to obtain a continuous annual record of the number, type, and location of fish harvested by charter boat clients in Michigan. Ninety-seven percent of approximately 500 charter fishing operators complied with the law by returning their completed catch reporting forms in 2001. Charter fishing operators reported making 17,566 charter fishing excursions during April through October. The total number of charter excursions increased slightly (+3%) in 2001 compared to 2000. Approximately 463,000 angler hours were spent fishing by 78,007 charter clients. The distribution of charter fishing excursions was: 67% Lake Michigan, 17% Lake Huron, 11% Lake Erie, 3% Lake Superior, and 2% Lake St. Clair. Over 209,000 fish were reported harvested. The harvest was composed of about 51,200 walleye, 48,800 yellow perch, 45,500 Chinook salmon, 27,600 lake trout, 15,500 rainbow trout, 12,100 coho salmon, and 2,100 brown trout.

Michigan's charter boat industry expanded from 250 operations in 1979 to nearly 900 in 1989. Since the late 1980s, the number of charter boats used for sport fishing excursions on Michigan's Great Lakes waters has declined to approximately 500. The charter fishing industry provides Michigan's economy with significant economic benefits each year. For example, 239,000 clients spent an estimated \$21 million in addition to charter fees in 1985, and the total statewide investment by charter boat firms in the same year was estimated to exceed \$30 million (Mahoney et al. 1986).

Reporting of sportfishing catch and effort by the Michigan charter fishing industry is required under Public Act 451 (Part 445) of 1994. The legislation was supported by the Michigan Charter Boat Association (MCBA), an industry representative, and the Michigan Department of Natural Resources (MDNR). Among other provisions, the law includes stringent penalties for charter fishing operators who are delinquent by more than 60 days with their catch reports. Also, the law requires that all operators maintain on board an up-to-date daily log of their catch and fishing activity.

The objective of the catch reporting system is to obtain a continuous annual record of fishing effort and the number, type, and location of fish harvested by charter boat anglers in Michigan. These data have assisted MDNR's Great Lakes fishery management efforts by providing valuable trend

information about charter harvest and harvest rates, which reflect the status of fish stocks important to the industry. The data also allows MCBA to monitor the health and welfare of its industry.

Methods

The Michigan Charter Boat Daily Catch Report form (Figure 1) was developed in 1989 by a committee made up of two members each from MDNR and MCBA. Forms and grid maps of the Great Lakes were mailed annually to all known charter operators during March. Charter operators were identified from lists of previous years' reporting operators, individuals who purchased Sport Trolling Licenses, and fishing operators inspected by MDNR's Law Enforcement Division. Charter operators who used their vessels for fishing were informed that they are required by law to complete the form each time they fished. A form is to be mailed by the tenth of each month following the month of fishing to MDNR's Charlevoix Fisheries Research Station.

The data form requires the following information: an assigned identification number for each charter boat, lake fished, date fished, port, grid, hours fished, number of resident and nonresident anglers, catch (number harvested) of major species, and number of sea lamprey seen attached to Chinook salmon or lake trout. Space is also provided on the form for comments or observations.

Completed data forms returned to Charlevoix Fisheries Research Station were logged, coded by port fished, and entered on computer. Incomplete forms were logged and returned to the charter operator with a letter explaining why the report was returned.

Each month (June through October), postcard notices were sent to charter operators who had not filed a report for the previous month. Two notices were sent each month, the first after an operator was delinquent for 10 days and the second after 30 days.

In December 2001, operators who had not filed reports for one or more months during the period May through September were sent letters via certified mail. These letters informed the operator that this would be the last notice he or she would receive. If the recipient did not respond in writing within 14 days of receipt of this notice, his or her name could be submitted to MDNR's Law Enforcement Division recommending non-issuance of an inspection certificate for the 2002 season.

Three measures of fishing effort were summarized: angler hours, angler trips, and charter excursions. Angler hours were based upon total hours fished (dock to dock) by each angler. An angler trip was one completed fishing outing by one individual. A charter excursion was one completed boat trip. For example, if a charter operator took four anglers fishing for 6 hours, total fishing effort would be 24 angler hours, 4 angler trips, and 1 charter excursion. Tables summarizing catch and effort for selected Great Lakes ports are contained in the appendices.

Data regarding number of sea lamprey observed by charter operators were collected at the request of the U.S. Fish and Wildlife Service's (USFWS) Sea Lamprey Control Station at Marquette, Michigan. These data are used by USFWS as an index of sea lamprey abundance.

Results

Compliance

During the 2001 fishing season, an average of 64% of all charter boat operators complied with the law by submitting their catch reports on time, while 80% submitted reports within 30 days of the due date. Monthly rate of compliance in 2001 was slightly greater than in 2000. By the end of 2001, 97% of all charter operators had complied with the law. This compliance rate is the same as that observed in 2000 (Rakoczy and Wesander 2006).

Charter Effort

Charter operators submitted reports on 17,976 charter excursions during 2001. The majority of charter excursions (17,566) took place on the Great Lakes and its tributaries during April through October (Tables 1–5). The total number of charter excursions during this time period increased by about 3% compared to 2000 (Table 6). Lake Michigan (-3%) and Lake Superior (<-1%) were the only water bodies that had a decrease in charter excursions as compared to 2000. The number of charter excursions increased compared to 2000 on lakes Huron (+8%), Erie (+8%), and the St. Clair system (lake and river; +24%). The distribution of charter fishing excursions by lake was: 67% Lake Michigan, 17% Lake Huron, 11% Lake Erie, 3% Lake Superior, and 2% Lake St. Clair. This distribution was very similar to previous years.

Since 1990, the total number of charter excursions on the Great Lakes has declined from about 20,000 in 1990–91 to a low of approximately 15,000 in 1994 (Table 6). Since 1994, the number of excursions has increased to around 17,000–18,000 the past four seasons (1998–2001). Lake Erie is the only location where the numbers of charter excursions have increased in recent years as compared to the 1990–91 period.

A total of 463,537 hours were spent fishing by 78,007 charter anglers in Michigan's waters and tributaries of the Great Lakes (Tables 1 through 5). The total number of charter anglers in 2001 decreased slightly (-1%) compared to 2000. Twenty-four percent of all charter clients were not residents of Michigan. This was the smallest percentage of non-resident charter anglers since 1990. For most years, the percentage of non-residents has been around 30%. Lake Superior charter operators had the greatest percentage of nonresident clients (50%; Table 4), while Lake St. Clair charter captains had the lowest percentage (5%; Table 5). The reason Lake Superior has always had a large percentage of non-resident charter anglers is the active charter fishery in the vicinity of Isle Royale National Park. The majority of those charter trips originate in Minnesota.

Catch and Harvest

A total of 209,837 fish were reported harvested in all lakes (Tables 1–5). Lake Michigan accounted for 45% of all fish harvested, while lakes Erie and Huron accounted for 36% and 11%, respectively. The most numerous species in the harvest was walleye (51,232) which accounted for 24% of the total harvest. Numbers of other species harvested were: 48,859 yellow perch (23%), 45,536 Chinook salmon (22%), 27,602 lake trout (13%), 15,546 rainbow trout (7%), 12,181 coho salmon (6%), and 2,091 brown trout (1%). The "other" species category accounted for the remainder of the catch. Since other species are not identified on the catch reporting form, the actual composition of this category is unknown.

The overall numbers of salmonines harvested from Michigan's Great Lakes waters decreased by over 5,700 fish (-5%) in 2001 compared to 2000. The harvest of coho salmon (-32%), brown trout (-48%) and lake trout (-12%) decreased as compared to the previous year. The number of rainbow trout (+55%) harvested increased in 2001 compared to 2000. The number of Chinook salmon harvested was virtually unchanged. The majority (95%) of salmonines harvested in Michigan's Great Lakes waters come from lakes Michigan and Huron.

In Lake Michigan, decreases occurred in the harvest of coho salmon (-7,202 fish or -38%), Chinook salmon (-3,833 or -9%), brown trout (-2,231 or -54%) and lake trout (-4,116 or -21%) in 2001 as compared to 2000. Only the harvest of rainbow trout (4,419 or +44%) increased as compared to the previous year.

In Lake Huron, the harvest of coho salmon (-82 fish or -20%) and lake trout (-850 or -11%) decreased, while the harvest of Chinook salmon (+524 or +7%) and rainbow trout (+303 or +36%)

increased compared to 2000. The Lake Huron brown trout harvest remained virtually unchanged in 2001 as compared to 2000.

The numbers of walleye harvested in 2001 increased compared to 2000, while the numbers of yellow perch decreased. Walleye harvest increased by 2,582 fish (+5%) while the yellow perch harvest decreased by 17,719 fish (-27%). The harvest of yellow perch from the Michigan waters of the Great Lakes was the lowest since the inception of the charter reporting program in 1990. The majority (87%) of walleye harvested by charter anglers in the Michigan waters of the Great Lakes came from Lake Erie. The Lake Erie walleye harvest increased slightly (+5%) in 2001 compared to 2000. Sixty percent of the total yellow perch harvest during 2001 came from Lake Erie, while 23% came from Lake Michigan. The harvest of yellow perch increased slightly (8%) in Lake Erie, but decreased (-52%) in Lake Michigan during 2001 as compared to the previous year.

Catch rates (fish per 100 angler hours) by Lake Michigan charter anglers decreased in 2001 as compared to 2000 for coho salmon (-37%), Chinook salmon (-6%), brown trout (-54%) and lake trout (-18%) (Table 7). Rates for rainbow trout (+17%) increased compared to the previous year.

On Lake Huron, catch rates for coho salmon and lake trout declined by -37% and -15%, respectively, as compared to 2000. The catch rates noted for lake trout during 2000 on Lake Huron were the best since the inception of the charter catch reporting program in 1990. Therefore, the decline in 2001 was not surprising. Catch rates for Chinook salmon and brown trout remained virtually unchanged, while rainbow trout catch rates increased by +31% compared to 2000.

Lake trout are the most important salmonine in the charter catch from Lake Superior. Catch rates for lake trout during 2001 were the greatest noted (30.1 fish per 100 angler hours) for the entire 12-year data series.

Walleye play an important role in charter fisheries on lakes Erie, Huron, and St. Clair. Catch rates for walleye by charter anglers on lakes Erie (+3%) and St. Clair (+208%) increased during 2001 compared to 2000 (Table 8). Walleye catch rates in the St. Clair system have fluctuated widely in recent years. Rates went from their lowest level in ten years during 2000 to a level in 2001 not seen since the early 1990s. Catch rates for walleye on Lake Huron decreased by -17% during 2001 compared to the previous year.

Most charter excursions that took place on Michigan's Great Lakes waters during 2001 targeted the various species of salmonines. The total catch per charter excursion for all five species of salmonines combined indicates that fishing was about average during 2001 at most Lake Michigan ports (Table 9). On Lake Michigan, the only double digit percentage changes for the "mixed bag" catch per excursion of salmonines during 2001 compared to the previous 11-year average (1990–2000) occurred at two of the six ports with the greatest fishing effort; Grand Haven (+12%) and Leland (-25%). The mixed bag catch per excursion during 2001 changed very little (<10%) compared to the 11-year average at St. Joseph/Benton Harbor, Ludington, Manistee and Frankfort/Elberta.

On Lake Huron, catch per excursion for salmonines during 2001 was greater than the 11-year average at Alpena (+15%), Grindstone City (+24%) and Harbor Beach (+33%), but below average at Rogers City (-22%) and Oscoda (-6%) (Table 9). On Lake Superior, salmonine catch rates at Black River Harbor were the highest yet recorded, and catch rates were also above the 11-year average at Ontonagon (+12%). At Marquette, the mixed bag catch rate for 2001 was 18% below the average.

Charter operators have reported the numbers of sea lamprey observed attached to Chinook salmon and lake trout since the inception of the charter catch reporting program. Historically, incidence rates (number of sea lamprey per 100 fish) of attached sea lamprey have been much higher on Lake Huron than the other Great Lakes (Table 10). No trends in attachment rates on lakes Michigan and Superior for Chinook salmon or lake trout are evident. In general, rates of sea lamprey attachments have declined since 1990 for Chinook salmon and lake trout on Lake Huron.

Acknowledgments

The authors wish to thank the Michigan Charter Boat Association for their support throughout the season. Cheryl Benson, Fisheries Division, Lansing, entered the data. This work was funded in part by Federal Aid in Sport Fish Restoration, Project F-81-R, Study 462.



MICHIGAN DEPARTMENT OF NATURAL RESOURCES - FISHERIES DIVISION

MICHIGAN CHARTER BOAT DAILY CATCH REPORT

Submittal of this information is required by authority of Section 44508 of Part 445 of Act 451, P. A. of 1994, as amended. Failure to comply with the provisions of this Act will prohibit issuance of an Inspection Certificate for the following season.

IDENTIFICATION NUMBER	
LAKE	
MONTH	YEAR

Please reference instructions on reverse side.

Date	Port Fished	Grid Fished	Hours Fished (Dock to Dock)	No. of Anglers		Daily Catch										No. of Lamprey Seen On			
				Res.	Non-Res.	COS	CHS	RBT	BNT	LAT	YEP	WAE	SMB	MUS	OTH	CHS	LAT		
1																			
2																			
3																			
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Comments:

Signature: _____ Date: _____

Figure 1.-Michigan charter boat daily catch report form.

Table 1.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.036	0.991	707	1,563	1,486	1,192	4,957	1,644	34	11,583
Chinook salmon	0.117	3.184	203	5,151	2,234	7,785	16,601	5,179	71	37,224
Rainbow trout	0.045	1.228	131	750	1,980	4,925	4,765	1,414	392	14,357
Brown trout	0.006	0.165	632	297	137	329	450	77	7	1,929
Lake trout	0.049	1.335	26	2,480	3,431	4,932	4,454	284	2	15,609
Yellow perch	0.035	0.956	1,552	751	2,456	3,164	2,458	678	120	11,179
Walleye	0.006	0.172	7	278	410	333	368	256	356	2,008
Other	0.004	0.100	37	553	210	31	154	84	104	1,173
Lamprey on:										
Chinook salmon			2	22	7	43	74	15	0	163
Lake trout			6	30	49	80	50	4	0	219
Angler hours			9,243	32,171	44,598	80,941	112,460	33,914	4,556	317,883
Angler trips			1,656	5,224	7,344	13,401	18,227	5,762	648	52,262
Anglers										
Resident			1,308	3,640	5,165	9,540	13,459	4,130	263	37,505
Nonresident			348	1,589	2,179	3,861	4,772	1,632	385	14,766
Charter excursions			269	1,129	1,620	2,998	4,132	1,354	190	11,692

Table 2.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.005	0.107	28	105	83	43	50	12	0	321
Chinook salmon	0.123	2.737	100	607	805	2,157	3,759	748	3	8,179
Rainbow trout	0.017	0.381	123	201	208	302	275	28	0	1,137
Brown trout	0.002	0.047	2	8	18	41	55	15	0	139
Lake trout	0.109	2.421	10	1,267	2,213	1,780	1,757	206	0	7,233
Yellow perch	0.027	0.602	0	0	98	268	289	1,138	6	1,799
Walleye	0.035	0.778	1	14	70	1,531	704	4	0	2,324
Other	0.014	0.318	1	101	170	344	311	22	0	949
Lamprey on:										
Chinook salmon			4	20	46	84	180	26	0	360
Lake trout			0	29	40	32	41	4	0	146
Angler hours			1,043	6,251	11,326	18,932	23,112	5,549	24	66,235
Angler trips			166	1,065	1,970	3,306	4,041	983	8	11,539
Anglers										
Resident			149	1,020	1,736	2,838	3,515	858	4	10,120
Nonresident			17	45	234	468	526	125	4	1,419
Charter excursions			60	277	502	882	1,029	236	2	2,988

Table 3.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats¹ on Lake Erie, 2001.

Species	Total catch		Month							
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	Season
Coho salmon	0.000	0.000	0	0	0	0	0	0	0	0
Chinook salmon	0.000	0.000	0	0	0	0	0	0	0	0
Rainbow trout	0.000	0.002	1	2	0	0	0	0	0	3
Brown trout	0.000	0.000	0	0	0	0	0	0	0	0
Lake trout	0.000	0.000	0	0	0	0	0	0	0	0
Yellow perch	0.567	14.921	3	134	259	1,126	14,577	12,103	1,281	29,483
Walleye	0.852	22.431	377	5,116	23,853	14,239	655	83	1	44,324
Other	0.023	0.598	8	364	549	200	29	20	12	1,182
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	0	0	0	0	0	0
Angler hours			628	6,374	23,228	13,828	4,453	3,112	404	52,027
Angler trips			81	1,134	4,712	2,700	838	619	80	10,164
Anglers										
Resident			51	1,066	4,212	2,371	724	553	80	9,057
Nonresident			30	68	519	344	114	66	0	1,141
Charter excursions			23	227	887	520	174	128	17	1,976

¹ Includes fish caught in Michigan or Ohio waters but landed at a Michigan ports.

Table 4.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on Lake Superior, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.017	0.570	0	8	109	74	53	28	0	272
Chinook salmon	0.006	0.205	0	11	55	6	20	6	0	98
Rainbow trout	0.003	0.101	0	4	19	8	10	7	0	48
Brown trout	0.001	0.034	0	12	2	1	0	1	0	16
Lake trout	0.301	9.979	0	218	1,132	1,517	1,514	360	19	4,760
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.002	0	0	0	0	1	0	0	1
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	10	11	8	2	0	31
Angler hours			0	629	3,778	4,973	5,074	1,282	54	15,789
Angler trips			0	88	483	696	755	191	9	2,222
Anglers										
Resident			0	59	258	339	361	86	4	1,107
Nonresident			0	29	225	357	400	105	5	1,121
Charter excursions			0	22	101	150	157	45	2	477

Table 5.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on St. Clair system (Lake St. Clair, St. Clair River, and Detroit River), 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.000	0.012	0	5	0	0	0	0	0	5
Chinook salmon	0.003	0.081	0	35	0	0	0	0	0	35
Rainbow trout	0.000	0.002	0	0	0	0	1	0	0	1
Brown trout	0.001	0.016	0	7	0	0	0	0	0	7
Lake trout	0.000	0.000	0	0	0	0	0	0	0	0
Yellow perch	0.551	14.776	47	216	1,028	1,033	1,541	1,674	859	6,398
Walleye	0.222	5.949	677	656	275	557	300	111	0	2,576
Other	0.300	8.048	36	95	605	1,125	1,192	377	55	3,485
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	0	0	0	0	0	0
Angler hours			1,331	1,415	1,839	2,409	2,334	1,853	423	11,603
Angler trips			203	228	304	374	358	280	73	1,820
Anglers										
Resident			195	225	296	363	314	266	73	1,732
Nonresident			16	3	8	11	44	14	0	96
Charter excursions			56	58	71	92	85	59	12	433

Table 6.—Number of charter excursions on the Michigan waters of the Great Lakes (including tributaries), April–October 1990–2001.

Lake	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Michigan	13,467	13,604	10,995	10,298	10,116	9,996	10,344	10,627	12,333	11,382	11,714	11,692
Huron	4,010	3,442	2,521	2,307	2,182	2,599	2,592	2,684	3,210	3,123	2,760	2,988
Erie	1,684	1,445	1,679	1,881	1,661	1,781	1,775	1,727	1,679	2,380	1,836	1,976
Superior	755	791	743	618	455	515	524	497	517	607	482	477
St. Clair	779	643	509	414	299	336	407	394	432	389	348	433
Total	20,695	19,925	16,447	15,518	14,713	15,227	15,642	15,929	18,171	17,881	17,140	17,566

Table 7.—Catch rates (fish per 100 angler hours) by charter anglers for salmonines on lakes Michigan, Huron, and Superior during 1990–2001.

Species	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<u>Michigan</u>												
Coho salmon	3.9	2.8	3.4	4.5	2.6	2.2	2.9	3.8	4.8	3.4	5.7	3.6
Chinook salmon	7.4	7.0	4.9	4.0	4.0	5.0	9.0	9.6	8.1	8.9	12.4	11.7
Rainbow trout	4.0	7.2	6.5	5.0	5.2	3.0	6.3	4.8	4.0	3.4	3.0	4.5
Brown trout	0.6	0.8	0.4	0.7	1.1	0.7	1.1	1.5	0.6	0.7	1.3	0.6
Lake trout	8.4	8.7	7.6	9.7	10.4	10.2	7.5	7.2	9.4	6.2	6.0	4.9
<u>Huron</u>												
Coho salmon	0.2	0.2	0.2	0.3	0.3	0.1	0.4	0.2	0.4	0.9	0.6	0.5
Chinook salmon	6.0	6.4	6.4	7.2	8.3	11.7	11.8	18.5	16.1	15.7	12.1	12.3
Rainbow trout	0.3	0.6	0.7	1.4	1.3	2.6	2.6	2.0	1.3	1.3	1.3	1.7
Brown trout	0.1	0.2	0.7	1.7	2.1	1.9	0.8	0.4	0.6	0.2	0.2	0.2
Lake trout	9.8	7.9	6.6	4.3	6.3	6.6	9.4	9.8	12.6	11.7	12.8	10.9
<u>Superior</u>												
Coho salmon	1.2	3.2	1.3	1.0	1.6	1.7	1.9	1.1	0.7	2.3	0.8	1.7
Chinook salmon	0.3	0.4	0.3	0.3	0.1	0.2	0.3	0.1	0.7	0.6	0.5	0.6
Rainbow trout	0.3	0.3	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.1	0.3
Brown trout	0.1	0.2	0.1	0.0	0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1
Lake trout	28.5	27.9	25.5	28.2	25.3	26.2	28.5	26.9	25.2	26.3	27.2	30.1

Table 8.—Catch rates (fish per 100 angler hours) by charter anglers for yellow perch and walleye on lakes Huron, St. Clair, and Erie during 1990–2001.

Species	Year											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<u>Huron</u>												
Yellow perch	9.2	7.4	6.3	4.0	4.9	3.7	2.8	1.6	2.5	8.4	3.9	2.7
Walleye	5.1	7.1	6.7	7.4	6.7	3.5	3.4	3.0	3.7	3.4	4.2	3.5
<u>St. Clair</u>												
Yellow perch	13.8	16.8	15.1	40.4	85.5	66.9	100.3	103.3	42.9	41.3	48.3	55.1
Walleye	32.4	20.4	12.5	18.4	12.3	15.5	12.3	13.1	16.1	16.3	7.2	22.2
<u>Erie</u>												
Yellow perch	29.4	34.1	43.3	43.9	28.7	51.7	78.4	74.6	70.4	67.2	53.5	56.7
Walleye	74.5	62.8	78.5	81.4	69.6	82.4	82.2	83.9	106.7	80.0	82.9	85.2

Table 9.—Total and mean (1990–2000) catch per excursion (number of fish), for all salmonines combined, by charter anglers at various ports on lakes Michigan, Huron, and Superior, 1990–2001.

Port	Year											Mean	2001
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
<u>Lake Michigan</u>													
St. Joseph/Benton Harbor	7.3	8.7	7.3	8.1	7.7	7.7	10.0	9.8	9.3	7.0	10.3	8.5	8.0
Grand Haven	5.0	5.5	4.7	5.3	5.0	5.2	6.1	6.7	6.7	5.3	7.8	5.8	6.5
Ludington	9.3	11.1	8.4	8.8	7.4	7.2	10.8	8.4	8.1	8.8	9.1	8.9	9.0
Manistee	6.2	8.0	5.7	6.2	5.8	6.9	10.3	8.8	8.2	7.5	9.6	7.6	7.1
Frankfort/Elberta	7.1	7.5	5.8	6.6	6.2	6.7	8.8	7.6	8.2	8.1	7.6	7.3	7.3
Leland	7.2	9.5	9.0	6.9	9.1	8.6	9.4	9.1	8.1	7.1	6.9	8.3	6.2
<u>Lake Huron</u>													
Rogers City	3.2	3.3	2.5	3.9	5.2	6.6	5.9	8.2	5.4	6.3	4.1	5.0	3.9
Alpena	3.4	3.5	4.7	4.9	4.7	5.1	5.2	6.4	6.6	7.2	6.8	5.3	6.1
Oscoda	4.0	4.0	3.6	3.0	3.2	5.2	6.2	7.1	7.1	7.0	5.8	5.1	4.8
Grindstone City	5.6	6.1	5.9	4.7	5.5	7.0	8.0	9.3	10.7	10.1	10.6	7.6	9.4
Harbor Beach	3.6	2.9	3.2	2.8	3.5	4.9	6.6	6.5	6.7	7.1	5.9	4.9	6.5
<u>Lake Superior</u>													
Marquette	10.9	10.9	11.4	10.9	8.3	11.2	13.0	11.9	7.0	10.4	11.5	10.7	8.8
Ontonagon	12.5	11.5	14.1	14.0	10.1	11.1	15.9	11.9	13.7	14.8	13.2	13.0	14.5
Black River Harbor	12.0	12.9	10.6	13.5	14.1	12.6	14.0	13.1	10.7	13.6	12.3	12.7	15.9

Table 10.—Sea lamprey incidence (lamprey per 100 fish) for Chinook salmon and lake trout harvested by the charter fishery in the Michigan waters of the Great Lakes, 1990–2001.

Species/Year	Lake		
	Michigan	Huron	Superior
<u>Chinook salmon</u>			
1990	0.5	18.6	0.0
1991	0.3	13.9	8.0
1992	0.2	13.6	0.0
1993	0.1	7.6	0.0
1994	0.3	7.1	0.0
1995	0.3	6.2	3.0
1996	0.1	3.9	0.0
1997	0.2	4.7	0.0
1998	0.4	5.2	0.0
1999	0.2	4.6	0.0
2000	0.4	7.3	1.1
2001	0.4	4.4	0.0
<u>Lake trout</u>			
1990	1.8	6.6	1.8
1991	1.2	5.7	1.6
1992	0.8	4.6	0.8
1993	0.6	2.1	0.5
1994	0.6	3.3	1.1
1995	1.0	2.7	0.7
1996	0.7	1.9	1.0
1997	1.1	3.0	0.6
1998	1.1	2.1	0.5
1999	1.2	1.8	0.5
2000	1.3	2.2	0.4
2001	1.4	2.0	0.7

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James C. Schneider, Editor
Alan D. Sutton, Graphics
Ellen S. G. Johnston, Desktop Publishing

Approved by Paul W. Seelbach

Appendix 1.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Michigan City, Indiana (fish harvested in Michigan waters of Lake Michigan), 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.133	4.927	191	716	467	10	31	9	0	1,424
Chinook salmon	0.051	1.865	38	139	53	62	210	37	0	539
Rainbow trout	0.038	1.419	7	181	70	72	71	9	0	410
Brown trout	0.006	0.232	16	11	21	3	14	2	0	67
Lake trout	0.074	2.727	0	198	38	180	356	16	0	788
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			1	1	0	0	0	0	0	2
Lake trout			1	1	0	0	0	0	0	2
Angler hours			680	2,908	2,198	1,720	2,510	618	36	10,670
Angler trips			91	404	291	247	340	79	6	1,458
Anglers										
Resident			19	54	1	0	7	0	0	81
Nonresident			72	350	290	247	333	79	6	1,377
Charter excursions			18	74	58	51	71	16	1	289

Appendix 2.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at New Buffalo, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.169	5.000	13	158	86	10	2	1	0	270
Chinook salmon	0.046	1.370	5	16	1	14	26	12	0	74
Rainbow trout	0.041	1.222	0	50	5	9	2	0	0	66
Brown trout	0.007	0.204	2	4	2	0	3	0	0	11
Lake trout	0.053	1.556	0	32	3	22	25	2	0	84
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	0	0	0	0	0	0
Angler hours			42	665	312	343	174	63		1,599
Angler trips			7	91	58	54	25	8	0	243
Anglers										
Resident			0	0	0	0	0	0	0	0
Nonresident			7	91	58	54	25	8	0	243
Charter excursions			2	19	13	12	6	2	0	54

Appendix 3.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at St. Joseph/Benton Harbor, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.063	1.941	337	576	712	128	243	34	0	2,030
Chinook salmon	0.101	3.104	92	1,130	326	196	884	619	0	3,247
Rainbow trout	0.057	1.755	20	188	360	915	350	3	0	1,836
Brown trout	0.006	0.188	53	46	43	19	32	4	0	197
Lake trout	0.032	0.981	2	528	177	100	217	2	0	1,026
Yellow perch	0.016	0.498	0	0	0	346	175	0	0	521
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.006	0	0	0	5	0	1	0	6
Lamprey on:										
Chinook salmon			1	5	0	1	0	0	0	7
Lake trout			2	9	3	2	2	0	0	18
Angler hours			1,869	7,363	6,600	5,941	6,903	3,398	0	32,074
Angler trips			270	991	979	850	996	517	0	4,603
Anglers										
Resident			104	352	290	260	353	154	0	1,513
Nonresident			166	639	689	590	643	363	0	3,090
Charter excursions			63	216	219	201	230	117	0	1,046

Appendix 4.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on the St. Joseph River, 2001.

Species	Total catch		Month												Season
	per hour	per excursion	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Coho salmon	0.0027	0.0700	0	0	37	0	0	0	0	0	5	0	0	0	42
Chinook salmon	0.0073	0.1900	0	0	0	0	0	0	0	1	75	37	1	0	114
Rainbow trout	0.1075	2.8000	14	92	412	88	2	0	1	1	35	286	546	203	1,680
Brown trout	0.0029	0.0750	0	3	28	5	1	0	0	0	0	4	3	1	45
Lake trout	0.0002	0.0050	0	0	0	0	0	0	0	0	0	2	1	0	3
Yellow perch	0.0000	0.0000	0	0	0	0	0	0	0	0	0	0	0	0	0
Walleye	0.0298	0.7767	16	18	15	0	0	183	131	63	4	1	2	33	466
Other	0.0033	0.0850	0	0	1	4	0	12	11	8	7	7	0	1	51
Angler hours			280	982	2,936	788	48	624	652	392	1,548	3,025	3,095	1,261	15,630
Angler trips			50	148	404	118	6	87	84	56	219	425	425	171	2,193
Anglers															
Resident			11	53	136	56	0	30	28	21	89	153	141	51	769
Nonresident			39	95	268	62	6	57	56	35	130	272	284	120	1,424
Charter excursions			14	40	112	29	2	26	27	14	63	108	111	54	600

Appendix 5.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at South Haven, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.006	0.345	27	8	8	39	57	4	0	143
Chinook salmon	0.026	1.617	11	199	43	136	229	53	0	671
Rainbow trout	0.011	0.658	0	12	23	149	81	8	0	273
Brown trout	0.001	0.087	1	1	5	19	9	1	0	36
Lake trout	0.009	0.571	6	83	29	63	53	3	0	237
Yellow perch	0.411	25.239	1,550	710	2,438	2,818	2,280	678	0	10,474
Walleye	0.000	0.007	0	0	0	3	0	0	0	3
Other	0.000	0.005	0	0	0	0	1	1	0	2
Lamprey on:										
Chinook salmon			0	0	0	2	1	0	0	3
Lake trout			0	1	2	4	1	0	0	8
Angler hours			3,441	4,059	4,044	6,727	5,590	1,645	0	25,504
Angler trips			765	839	865	1,340	1,106	340	0	5,255
Anglers										
Resident			764	817	835	1,273	995	321	0	5,005
Nonresident			1	22	30	67	111	19	0	250
Charter excursions			36	66	64	110	104	35	0	415

Appendix 6.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Saugatuck, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.045	1.225	139	50	80	233	470	77	2	1,051
Chinook salmon	0.168	4.521	36	979	259	599	1,422	584	0	3,879
Rainbow trout	0.050	1.344	5	116	128	501	394	5	4	1,153
Brown trout	0.007	0.200	63	28	13	30	21	17	0	172
Lake trout	0.059	1.598	1	391	316	295	362	6	0	1,371
Yellow perch	0.000	0.006	0	1	1	0	3	0	0	5
Walleye	0.000	0.008	1	0	0	6	0	0	0	7
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	1	0	3	2	0	0	6
Lake trout			0	2	6	7	5	0	0	20
Angler hours			510	3,645	3,609	5,897	7,100	2,307	40	23,107
Angler trips			82	563	572	957	1,124	404	8	3,710
Anglers										
Resident			80	452	430	679	804	270	3	2,718
Nonresident			2	111	142	278	320	134	5	992
Charter excursions			18	135	133	217	256	97	2	858

Appendix 7.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Holland, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.031	0.723	0	10	1	76	107	15	0	209
Chinook salmon	0.147	3.398	13	199	55	212	406	96	1	982
Rainbow trout	0.039	0.903	1	17	13	112	100	18	0	261
Brown trout	0.010	0.235	19	12	6	16	11	4	0	68
Lake trout	0.065	1.516	8	69	50	128	157	26	0	438
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.001	0.014	4	0	0	0	0	0	0	4
Other	0.000	0.003	0	0	0	0	0	1	0	1
Lamprey on:										
Chinook salmon			0	3	0	4	3	0	0	10
Lake trout			2	3	4	5	2	0	0	16
Angler hours			113	913	602	2,036	2,407	612	10	6,692
Angler trips			23	160	107	321	393	100	2	1,106
Anglers										
Resident			20	133	86	243	290	79	2	853
Nonresident			3	27	21	78	103	21	0	253
Charter excursions			8	46	30	80	96	28	1	289

Appendix 8.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Grand Haven, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.030	0.719	0	13	38	147	910	225	4	1,337
Chinook salmon	0.148	3.505	0	1,532	534	654	2,575	1,209	12	6,516
Rainbow trout	0.037	0.867	0	79	156	733	559	68	16	1,611
Brown trout	0.002	0.046	0	13	7	17	35	13	0	85
Lake trout	0.059	1.394	0	437	731	775	625	24	0	2,592
Yellow perch	0.000	0.009	0	0	16	0	0	0	0	16
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.002	0	0	1	0	0	3	0	4
Lamprey on:										
Chinook salmon			0	10	2	2	5	2	0	21
Lake trout			0	4	9	7	4	0	0	24
Angler hours			0	5,358	7,757	10,052	15,131	5,635	128	44,060
Angler trips			0	944	1,332	1,782	2,690	1,023	22	7,793
Anglers										
Resident			0	847	1,170	1,405	2,291	905	20	6,638
Nonresident			0	97	162	377	399	118	2	1,155
Charter excursions			0	233	316	426	628	250	6	1,859

Appendix 9.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Muskegon, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.040	0.846	0	5	7	9	55	22	6	104
Chinook salmon	0.113	2.374	0	57	15	32	116	67	5	292
Rainbow trout	0.060	1.260	0	7	8	43	68	29	0	155
Brown trout	0.006	0.130	0	3	1	1	7	4	0	16
Lake trout	0.027	0.569	0	6	12	26	22	4	0	70
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	0	0	0	1	0	0	1
Lake trout			0	2	0	1	2	0	0	5
Angler hours			10	289	394	474	892	494	38	2,591
Angler trips			2	43	69	93	162	91	9	469
Anglers										
Resident			2	29	50	74	122	78	9	364
Nonresident			0	14	19	19	40	13	0	105
Charter excursions			1	10	17	24	46	22	3	123

Appendix 10.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Whitehall/Montague, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.025	0.772	0	0	2	44	66	18	2	132
Chinook salmon	0.088	2.678	0	25	34	101	259	36	3	458
Rainbow trout	0.090	2.743	2	2	12	129	265	53	6	469
Brown trout	0.003	0.094	2	1	1	2	8	2	0	16
Lake trout	0.047	1.427	0	5	34	86	117	2	0	244
Yellow perch	0.002	0.076	2	10	1	0	0	0	0	13
Walleye	0.001	0.041	2	0	5	0	0	0	0	7
Other	0.002	0.058	0	1	8	0	0	1	0	10
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	2	4	2	1	0	9
Angler hours			48	96	669	1,503	2,231	607	54	5,207
Angler trips			12	14	101	207	337	99	9	779
Anglers										
Resident			12	12	62	93	112	71	2	364
Nonresident			0	2	39	114	225	28	7	415
Charter excursions			7	4	23	43	73	19	2	171

Appendix 11.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Pentwater, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.038	0.847	0	23	26	137	225	36	0	447
Chinook salmon	0.151	3.390	0	166	128	591	756	149	0	1,790
Rainbow trout	0.089	1.989	1	7	93	327	469	153	0	1,050
Brown trout	0.013	0.303	65	26	6	22	34	7	0	160
Lake trout	0.076	1.716	1	53	137	413	288	14	0	906
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.008	0	4	0	0	0	0	0	4
Lamprey on:										
Chinook salmon			0	1	0	3	0	0	0	4
Lake trout			0	0	3	7	1	0	0	11
Angler hours			192	644	1,481	4,305	4,437	797	0	11,855
Angler trips			38	110	227	716	724	135	0	1,950
Anglers										
Resident			36	96	143	488	509	100	0	1,372
Nonresident			2	14	84	228	215	35	0	578
Charter excursions			14	34	60	197	185	38	0	528

Appendix 12.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Ludington, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.034	0.974	0	3	35	241	1,055	192	4	1,530
Chinook salmon	0.132	3.782	2	415	243	1,280	3,197	798	6	5,941
Rainbow trout	0.090	2.570	3	31	385	1,055	1,772	780	11	4,037
Brown trout	0.008	0.218	150	59	8	53	68	4	0	342
Lake trout	0.052	1.502	2	106	346	707	1,104	94	0	2,359
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.001	0	0	0	1	1	0	0	2
Lamprey on:										
Chinook salmon			0	0	2	13	26	5	0	46
Lake trout			1	0	2	11	19	2	0	35
Angler hours			459	2,380	4,032	11,218	21,847	4,985	34	44,954
Angler trips			74	340	569	1,633	3,191	726	5	6,538
Anglers										
Resident			55	289	499	1,347	2,502	594	2	5,288
Nonresident			19	51	70	286	689	132	3	1,250
Charter excursions			19	85	140	399	754	172	2	1,571

Appendix 13.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Manistee, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.018	0.499	0	1	16	76	392	92	0	577
Chinook salmon	0.136	3.772	6	261	247	1,255	2,239	356	0	4,364
Rainbow trout	0.046	1.277	4	57	505	466	278	167	0	1,477
Brown trout	0.015	0.418	229	80	12	74	78	11	0	484
Lake trout	0.042	1.177	6	94	490	447	305	20	0	1,362
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	1	3	10	22	1	0	37
Lake trout			0	5	10	18	10	0	0	43
Angler hours			869	1,466	4,692	9,025	13,485	2,543	0	32,080
Angler trips			138	251	643	1,321	1,970	397	0	4,720
Anglers										
Resident			134	221	531	1,127	1,583	275	0	3,871
Nonresident			4	30	112	194	391	122	0	853
Charter excursions			39	66	156	319	478	99	0	1,157

Appendix 14.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Onekama, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.016	0.413	0	0	5	9	56	4	0	74
Chinook salmon	0.112	2.849	0	2	22	224	239	23	0	510
Rainbow trout	0.037	0.939	0	0	40	77	34	17	0	168
Brown trout	0.007	0.184	0	4	0	10	18	1	0	33
Lake trout	0.034	0.860	0	3	43	58	44	6	0	154
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.006	0	0	0	1	0	0	0	1
Lamprey on:										
Chinook salmon			0	0	0	0	4	0	0	4
Lake trout			0	0	0	0	0	0	0	0
Angler hours			0	50	572	1,741	1,969	211	0	4,543
Angler trips			0	10	79	270	306	41	0	706
Anglers										
Resident			0	10	72	250	245	35	0	612
Nonresident			0	0	7	20	61	6	0	94
Charter excursions			0	3	20	69	76	11	0	179

Appendix 15.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Frankfort/Elberta, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.083	2.217	0	0	2	26	1,262	831	16	2,137
Chinook salmon	0.107	2.841	0	18	106	788	1,610	213	4	2,739
Rainbow trout	0.026	0.703	0	0	96	247	271	57	7	678
Brown trout	0.006	0.148	27	6	4	31	71	4	0	143
Lake trout	0.054	1.435	0	128	262	584	402	7	0	1,383
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.004	0	0	0	3	0	1	0	4
Lamprey on:										
Chinook salmon			0	0	0	2	3	0	0	5
Lake trout			0	2	2	5	2	0	0	11
Angler hours			125	583	2,069	6,339	12,991	3,503	56	25,664
Angler trips			23	97	338	1,086	2,196	590	8	4,338
Anglers										
Resident			23	83	277	828	1,867	517	8	3,603
Nonresident			0	14	61	258	329	73	0	735
Charter excursions			9	23	75	237	489	129	2	964

Appendix 16.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Leland, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.000	0.009	0	0	0	3	2	0	0	5
Chinook salmon	0.225	5.356	0	0	104	1,234	1,394	235	0	2,967
Rainbow trout	0.006	0.141	0	0	38	14	24	2	0	78
Brown trout	0.003	0.081	0	0	2	22	20	1	0	45
Lake trout	0.027	0.648	0	121	167	42	25	4	0	359
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.002	0	0	0	0	1	0	0	1
Lamprey on:										
Chinook salmon			0	0	0	1	0	0	0	1
Lake trout			0	0	0	0	0	0	0	0
Angler hours			0	356	1,482	5,438	5,277	634	0	13,187
Angler trips			0	71	275	960	934	130	0	2,370
Anglers										
Resident			0	61	199	619	677	86	0	1,642
Nonresident			0	15	76	341	257	44	0	733
Charter excursions			0	17	64	225	215	33	0	554

Appendix 17.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on the West Arm of Grand Traverse Bay (grids 715, 815 and 915), Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.002	0.030	0	0	1	1	0	6	0	8
Chinook salmon	0.079	1.257	0	2	1	8	143	179	0	333
Rainbow trout	0.000	0.004	0	0	0	0	1	0	0	1
Brown trout	0.001	0.011	0	2	0	0	1	0	0	3
Lake trout	0.205	3.268	0	93	220	347	190	16	0	866
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.004	0	0	1	0	0	0	0	1
Other	0.001	0.023	0	0	0	6	0	0	0	6
Lamprey on:										
Chinook salmon			0	0	0	0	4	0	0	4
Lake trout			0	1	2	2	0	0	0	5
Angler hours			0	200	781	949	1,382	907	0	4,219
Angler trips			0	50	178	233	320	203	0	984
Anglers										
Resident			0	45	137	156	216	133	0	687
Nonresident			0	5	41	77	104	70	0	297
Charter excursions			0	14	46	64	87	54	0	265

Appendix 18.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on the East Arm of Grand Traverse Bay (grids 716, 816 and 916), Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.003	0.052	0	0	0	0	1	19	0	20
Chinook salmon	0.121	1.906	0	4	0	9	380	341	0	734
Rainbow trout	0.000	0.003	0	0	0	0	1	0	0	1
Brown trout	0.001	0.010	0	0	0	0	3	1	0	4
Lake trout	0.113	1.787	0	107	230	234	95	22	0	688
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.121	1.912	0	544	188	4	0	0	0	736
Lamprey on:										
Chinook salmon			0	0	0	1	0	7	0	8
Lake trout			0	0	0	2	0	1	0	3
Angler hours			0	518	859	1,328	2,077	1,284	0	6,066
Angler trips			0	131	215	339	522	323	0	1,530
Anglers										
Resident			0	105	151	238	341	227	0	1,062
Nonresident			0	26	64	101	181	96	0	468
Charter excursions			0	38	51	79	133	84	0	385

Appendix 19.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Charlevoix, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.000	0.000	0	0	0	0	0	0	0	0
Chinook salmon	0.032	0.680	0	0	0	6	106	26	0	138
Rainbow trout	0.000	0.010	0	0	0	0	0	2	0	2
Brown trout	0.000	0.000	0	0	0	0	0	0	0	0
Lake trout	0.116	2.458	0	19	103	326	38	13	0	499
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.005	0	0	1	0	0	0	0	1
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	2	0	0	0	0	2
Angler hours			0	102	736	1,625	1,249	585	0	4,297
Angler trips			0	24	160	349	248	137	0	918
Anglers										
Resident			0	3	67	109	107	56	0	342
Nonresident			0	21	93	240	141	81	0	576
Charter excursions			0	8	39	76	53	27	0	203

Appendix 20.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Harbor Springs and Petoskey, Lake Michigan, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.000	0.000	0	0	0	0	0	0	0	0
Chinook salmon	0.066	0.965	0	0	0	4	36	15	0	55
Rainbow trout	0.000	0.000	0	0	0	0	0	0	0	0
Brown trout	0.001	0.018	0	0	0	0	1	0	0	1
Lake trout	0.103	1.491	0	7	9	50	17	2	0	85
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	0	0	0	1	0	0	1
Lake trout			0	0	2	3	0	0	0	5
Angler hours			0	16	72	268	384	88	0	828
Angler trips			0	5	18	67	96	20	0	206
Anglers										
Resident			0	5	8	21	31	7	0	72
Nonresident			0	0	10	46	65	13	0	134
Charter excursions			0	2	4	17	29	5	0	57

Appendix 21.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on Little Bay de Noc (grids 206 and 306), Lake Michigan, 2001.

Species	Total catch		Month								Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	
Coho salmon	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Chinook salmon	0.0022	0.0349	0	0	0	8	0	0	0	0	8
Rainbow trout	0.0003	0.0044	0	0	0	1	0	0	0	0	1
Brown trout	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Lake trout	0.0000	0.0000	0	0	0	0	0	0	0	0	0
Yellow perch	0.0414	0.6550	0	30	0	0	0	0	120	0	150
Walleye	0.4913	7.7686	0	278	221	193	305	252	355	175	1,779
Other	0.0956	1.5109	33	4	0	0	143	69	97	0	346
Lamprey on:											
Chinook salmon			0	0	0	0	0	0	0	0	0
Lake trout			0	0	0	0	0	0	0	0	0
Angler hours			98	485	423	370	742	494	737	272	3,621
Angler trips			13	73	66	71	113	70	98	40	544
Anglers											
Resident			3	21	34	43	87	29	25	26	268
Nonresident			10	52	32	28	26	41	73	14	276
Charter excursions			6	30	28	26	43	29	47	20	229

Appendix 22.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Rogers City, Lake Huron, 2001.

Species	Total catch		Month								Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct		
Coho salmon	0.008	0.120	0	0	5	1	3	0	0	9	
Chinook salmon	0.234	3.347	0	0	0	115	99	37	0	251	
Rainbow trout	0.023	0.333	0	0	0	11	11	3	0	25	
Brown trout	0.001	0.013	0	0	0	1	0	0	0	1	
Lake trout	0.007	0.093	0	0	0	2	5	0	0	7	
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0	
Walleye	0.000	0.000	0	0	0	0	0	0	0	0	
Other	0.002	0.027	0	0	0	0	0	2	0	2	
Lamprey on:											
Chinook salmon			0	0	0	9	6	2	0	17	
Lake trout			0	0	0	0	0	0	0	0	
Angler hours			0	0	30	430	444	169	0	1,073	
Angler trips			0	0	6	90	94	38	0	228	
Anglers											
Resident			0	0	6	66	90	38	0	200	
Nonresident			0	0	0	24	4	0	0	28	
Charter excursions			0	0	2	31	30	12	0	75	

Appendix 23.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Rockport, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.001	0.019	0	0	0	1	1	0	0	2
Chinook salmon	0.220	4.245	0	0	0	167	272	11	0	450
Rainbow trout	0.019	0.368	0	0	0	19	19	1	0	39
Brown trout	0.001	0.019	0	0	0	0	1	1	0	2
Lake trout	0.056	1.085	0	0	0	55	60	0	0	115
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.008	0.151	0	0	0	14	2	0	0	16
Lamprey on:										
Chinook salmon			0	0	0	23	27	1	0	51
Lake trout			0	0	0	3	1	0	0	4
Angler hours			0	0	0	740	1,254	54	0	2,048
Angler trips			0	0	0	131	225	10	0	366
Anglers										
Resident			0	0	0	90	144	6	0	240
Nonresident			0	0	0	41	81	4	0	126
Charter excursions			0	0	0	41	62	3	0	106

Appendix 24.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Alpena, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.005	0.099	0	0	1	9	3	0	0	13
Chinook salmon	0.185	3.855	0	4	51	243	173	34	0	505
Rainbow trout	0.029	0.611	0	3	10	44	23	0	0	80
Brown trout	0.004	0.076	0	2	0	8	0	0	0	10
Lake trout	0.072	1.504	0	16	54	79	48	0	0	197
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.003	0.061	0	8	0	0	0	0	0	8
Other	0.041	0.847	0	1	13	74	23	0	0	111
Lamprey on:										
Chinook salmon			0	0	1	5	7	3	0	16
Lake trout			0	0	0	1	0	0	0	1
Angler hours			0	100	414	1,210	824	184	0	2,732
Angler trips			0	24	71	207	141	32	0	475
Anglers										
Resident			0	24	50	176	133	20	0	403
Nonresident			0	0	21	31	8	12	0	72
Charter excursions			0	6	22	55	40	8	0	131

Appendix 25.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Harrisville, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.004	0.074	0	0	7	9	0	0	0	16
Chinook salmon	0.103	1.894	0	20	43	149	149	50	0	411
Rainbow trout	0.013	0.244	0	1	4	29	16	3	0	53
Brown trout	0.002	0.032	0	0	1	1	3	2	0	7
Lake trout	0.087	1.604	0	73	70	103	88	14	0	348
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.001	0.009	0	0	1	0	1	0	0	2
Other	0.002	0.037	0	2	1	4	1	0	0	8
Lamprey on:										
Chinook salmon			0	1	7	3	4	0	0	15
Lake trout			0	0	4	0	1	0	0	5
Angler hours			0	215	557	1,250	1,512	464	0	3,998
Angler trips			0	43	103	236	277	76	0	735
Anglers										
Resident			0	33	102	222	257	65	0	679
Nonresident			0	10	1	14	20	11	0	56
Charter excursions			0	15	33	72	76	21	0	217

Appendix 26.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Oscoda, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.001	0.027	0	0	4	2	6	5	0	17
Chinook salmon	0.153	2.827	0	55	149	390	821	352	0	1,767
Rainbow trout	0.016	0.291	0	3	39	66	68	6	0	182
Brown trout	0.004	0.077	0	0	4	10	26	8	0	48
Lake trout	0.083	1.536	0	82	184	270	407	17	0	960
Yellow perch	0.000	0.003	0	0	2	0	0	0	0	2
Walleye	0.002	0.037	0	1	0	3	19	0	0	23
Other	0.003	0.056	0	0	21	3	10	1	0	35
Lamprey on:										
Chinook salmon			0	1	2	8	32	9	0	52
Lake trout			0	2	3	8	17	0	0	30
Angler hours			0	360	1,923	2,840	4,949	1,514	0	11,586
Angler trips			0	64	333	494	836	272	0	1,999
Anglers										
Resident			0	58	298	436	784	242	0	1,818
Nonresident			0	6	35	58	52	30	0	181
Charter excursions			0	24	106	156	248	91	0	625

Appendix 27.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on Saginaw Bay, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.002	0.054	0	12	19	12	16	1	0	60
Chinook salmon	0.087	2.263	0	233	362	812	986	144	0	2,537
Rainbow trout	0.011	0.282	0	35	93	100	75	13	0	316
Brown trout	0.001	0.036	0	3	3	21	10	3	0	40
Lake trout	0.174	4.542	0	979	1,819	1,233	907	154	0	5,092
Yellow perch	0.060	1.576	0	0	75	259	289	1,138	6	1,767
Walleye	0.078	2.041	0	3	56	1,528	698	3	0	2,288
Other	0.016	0.410	0	32	79	238	101	10	0	460
Lamprey on:										
Chinook salmon			0	8	20	20	15	4	0	67
Lake trout			0	20	22	19	13	4	0	78
Angler hours			0	3,258	6,218	10,276	7,390	2,137	4	29,282
Angler trips			0	545	1,060	1,714	1,297	379	4	4,999
Anglers										
Resident			0	530	994	1,562	1,191	372	0	4,649
Nonresident			0	15	66	152	106	7	4	350
Charter excursions			0	137	244	408	279	52	1	1,121

Appendix 28.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Grindstone City, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.003	0.072	0	9	15	12	18	0	0	54
Chinook salmon	0.138	3.150	0	212	338	766	946	110	0	2,372
Rainbow trout	0.016	0.360	0	30	87	84	61	9	0	271
Brown trout	0.002	0.049	0	2	2	20	10	3	0	37
Lake trout	0.252	5.740	0	859	1,617	1,036	704	106	0	4,322
Yellow perch	0.000	0.001	0	0	0	0	0	1	0	1
Walleye	0.005	0.110	0	1	33	46	1	2	0	83
Other	0.014	0.311	0	32	74	91	37	0	0	234
Lamprey on:										
Chinook salmon			0	7	20	20	15	1	0	63
Lake trout			0	10	20	13	8	3	0	54
Angler hours			0	2,816	4,929	4,905	3,890	618	0	17,157
Angler trips			0	467	827	831	680	105	0	2,910
Anglers										
Resident			0	459	780	773	655	104	0	2,771
Nonresident			0	8	47	58	25	1	0	139
Charter excursions			0	116	204	232	175	26	0	753

Appendix 29.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Harbor Beach, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.007	0.174	0	4	3	2	6	4	0	19
Chinook salmon	0.148	3.468	2	52	37	50	183	51	3	378
Rainbow trout	0.025	0.578	1	15	14	17	13	3	0	63
Brown trout	0.006	0.138	0	3	0	0	11	1	0	15
Lake trout	0.092	2.156	0	30	27	37	120	21	0	235
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.009	0	0	0	0	1	0	0	1
Other	0.000	0.009	0	0	1	0	0	0	0	1
Lamprey on:										
Chinook salmon			0	1	0	0	28	6	0	35
Lake trout			0	1	0	1	8	0	0	10
Angler hours			20	350	287	471	1,001	410	20	2,559
Angler trips			4	62	53	85	176	73	4	457
Anglers										
Resident			1	51	51	81	165	71	4	424
Nonresident			3	11	2	4	11	2	0	33
Charter excursions			1	17	13	20	39	18	1	109

Appendix 30.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Port Sanilac, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.039	1.046	12	88	36	0	0	0	0	136
Chinook salmon	0.115	3.046	47	242	99	4	0	4	0	396
Rainbow trout	0.056	1.492	8	143	42	0	1	0	0	194
Brown trout	0.004	0.100	2	0	10	0	1	0	0	13
Lake trout	0.041	1.085	2	87	50	1	1	0	0	141
Yellow perch	0.003	0.077	0	0	10	0	0	0	0	10
Walleye	0.003	0.085	0	0	11	0	0	0	0	11
Other	0.030	0.792	1	64	38	0	0	0	0	103
Lamprey on:										
Chinook salmon			4	10	12	0	0	3	0	29
Lake trout			0	6	11	0	0	0	0	17
Angler hours			244	1,918	1,154	41	48	48	0	3,453
Angler trips			40	316	193	7	8	8	0	572
Anglers										
Resident			40	313	171	4	8	8	0	544
Nonresident			0	3	22	3	0	0	0	28
Charter excursions			9	75	40	2	2	2	0	130

Appendix 31.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Lexington, Lake Huron, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.050	0.842	15	1	0	0	0	0	0	16
Chinook salmon	0.162	2.737	45	5	2	0	0	0	0	52
Rainbow trout	0.025	0.421	7	1	0	0	0	0	0	8
Brown trout	0.000	0.000	0	0	0	0	0	0	0	0
Lake trout	0.025	0.421	8	0	0	0	0	0	0	8
Yellow perch	0.059	1.000	0	0	10	9	0	0	0	19
Walleye	0.003	0.053	1	0	0	0	0	0	0	1
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	0	0	0	0	0	0
Angler hours			177	30	53	61	0	0	0	321
Angler trips			35	7	13	13	0	0	0	68
Anglers										
Resident			34	7	7	5	0	0	0	53
Nonresident			1	0	6	8	0	0	0	15
Charter excursions			11	2	3	3	0	0	0	19

Appendix 32.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Black River Harbor, Lake Superior, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.052	2.560	0	0	98	58	35	24	0	215
Chinook salmon	0.008	0.405	0	0	22	3	5	4	0	34
Rainbow trout	0.007	0.333	0	0	11	3	7	7	0	28
Brown trout	0.001	0.048	0	0	2	1	0	1	0	4
Lake trout	0.258	12.595	0	0	537	253	135	133	0	1,058
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	8	4	2	2	0	16
Angler hours			0	0	1,749	983	770	603	0	4,105
Angler trips			0	0	199	125	107	68	0	499
Anglers										
Resident			0	0	50	12	27	26	0	115
Nonresident			0	0	149	113	80	42	0	384
Charter excursions			0	0	33	22	17	12	0	84

Appendix 33.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Ontonagon, Lake Superior, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.021	0.475	0	8	0	8	1	2	0	19
Chinook salmon	0.050	1.150	0	9	31	0	6	0	0	46
Rainbow trout	0.000	0.000	0	0	0	0	0	0	0	0
Brown trout	0.013	0.300	0	12	0	0	0	0	0	12
Lake trout	0.547	12.525	0	69	102	183	120	27	0	501
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	0	4	3	0	0	7
Angler hours			0	119	197	365	185	50	0	916
Angler trips			0	23	36	75	40	10	0	184
Anglers										
Resident			0	8	22	30	7	0	0	67
Nonresident			0	15	14	45	33	10	0	117
Charter excursions			0	6	8	15	9	2	0	40

Appendix 34.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats at Marquette, Lake Superior, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.007	0.198	0	0	9	8	17	2	0	36
Chinook salmon	0.001	0.044	0	2	1	3	2	0	0	8
Rainbow trout	0.002	0.066	0	1	7	4	0	0	0	12
Brown trout	0.000	0.000	0	0	0	0	0	0	0	0
Lake trout	0.291	8.538	0	110	236	603	480	106	19	1,554
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.000	0.000	0	0	0	0	0	0	0	0
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	0	1	1	0	0	2
Angler hours			0	396	963	1,995	1,581	351	54	5,340
Angler trips			0	49	134	268	258	64	9	782
Anglers										
Resident			0	39	95	188	186	42	4	554
Nonresident			0	10	39	80	72	22	5	228
Charter excursions			0	12	34	60	58	16	2	182

Appendix 35.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats in the vicinity of Isle Royale National Park, Lake Superior, 2001.

Species	Total catch		Month							Season
	per hour	per excursion	Apr	May	Jun	Jul	Aug	Sep	Oct	
Coho salmon	0.000	0.000	0	0	0	0	0	0	0	0
Chinook salmon	0.001	0.017	0	0	0	0	1	0	0	1
Rainbow trout	0.002	0.051	0	0	0	0	3	0	0	3
Brown trout	0.000	0.000	0	0	0	0	0	0	0	0
Lake trout	0.286	8.508	0	0	0	136	312	54	0	502
Yellow perch	0.000	0.000	0	0	0	0	0	0	0	0
Walleye	0.000	0.000	0	0	0	0	0	0	0	0
Other	0.001	0.017	0	0	0	0	1	0	0	1
Lamprey on:										
Chinook salmon			0	0	0	0	0	0	0	0
Lake trout			0	0	0	0	0	0	0	0
Angler hours			0	0	20	543	1,073	122	0	1,758
Angler trips			0	0	5	88	158	18	0	269
Anglers										
Resident			0	0	4	24	6	0	0	34
Nonresident			0	0	1	64	152	18	0	235
Charter excursions			0	0	2	20	31	6	0	59