

STUDY PERFORMANCE REPORT

Project No.: F-81-R-1

State: Michigan

Title: Charter boat catch and effort from Michigan waters of the Great Lakes

Study No.: 462

Period Covered: October 1, 1999 to September 30, 2000

Study Objective: To obtain a continuous annual record of fishing effort (as well as the number, type, and location of fish caught) by charter boat anglers in Michigan waters of the Great Lakes.

Summary: Charter boat catch reporting data forms, grid maps of the Great Lakes, and instructions were sent to charter fishing operators prior to the 1999 and 2000 angling seasons. Completed data forms were returned to the Charlevoix Fisheries Research Station and entered into the computer throughout the year. Charter fishing operators who were delinquent with their reports were notified on a regular basis throughout the season via post card or certified mail.

By the end of the 1999 season, data were compiled on 18,400 charter fishing excursions. Ninety-seven percent of all charter operators complied with the reporting requirements. A report was prepared which summarized the results by lake. This was mailed to all charter operators during March 2000.

Charter boat catch data from the 2000 fishing season is currently being entered into the database.

Job 1. Title: Distribute data forms.

Findings: Reporting forms and grid maps of the Great Lakes were mailed to 525 charter operators during March, 1999. Charter operators were informed that they were required by law to complete the form each time they fished. The form was to be mailed by the tenth day of the following month to the Michigan Department of Natural Resources (MDNR), Charlevoix Fisheries Research Station.

During March 2000, reporting materials were mailed to 508 charter operators.

Job 2. Title: Data entry and compliance.

Findings: Completed data forms received at the Charlevoix Fisheries Research Station were logged, coded by port fished, and entered into the computer. Catch and effort data on 18,400 charter fishing excursions were recorded for the 1999 season. Incomplete forms received were logged and returned to the charter operator with a letter requesting completion and the reason the report was returned. Data entry continues at this time for the 2000 season.

Each month (June through October) post-card 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 1999, letters were sent via certified mail to operators who had not filed reports for one or more months during May through September for the 1999 season. The letter 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 his or her name would be submitted to MDNR's Law Enforcement Division recommending non-issuance of an inspection certificate for the 2000 season. A list of 17 names of charter operators who had not complied with the reporting requirements was sent to MDNR's Law Enforcement Division in February 2000.

During 1999, an average of 35% of charter operators had not filed their monthly reports within 10 days after the date they were due. An average of 22% of all operators were delinquent for at least 30 days. The monthly average rate of non-compliance during 1999 was slightly greater than 1998. However, by end of December 1999, 97% of all charter operators had complied with the law. The final compliance rate for 1999 was 1% less than that for 1998.

Job 3. Title: Quality control and education.

Findings: Presentations regarding the results and importance of the charter boat reporting program were made at several charter boat workshops held across Michigan during the winter months 2000. The workshops were organized by the Michigan State University, Extension Service (Sea Grant). The presentations stressed the need for accurate and timely information from charter operators. Adequate time was allowed at the end of each session for the project biologist to field questions from charter captains.

Several field trips were made by the project biologist during the 1999 and 2000 fishing seasons to various ports on lakes Michigan and Huron. The objectives of these trips were to promote the reporting program and talk informally to charter captains.

Job 4. Title: Compile data and write annual reports.

Findings: Charter boat operators submitted reports on a total of 18,400 charter excursions, which took place during 1999. The majority of charter excursions (17,800) took place on the Great Lakes. These data were compiled and summarized by lake (Tables 1 through 5), and presented in a report titled *Charter Boat Catch and Effort from the Michigan Waters of the Great Lakes, 1999*. Copies of this report were mailed to all charter operators during March 2000 along with reporting forms to be used in 2000 and grid maps of the Great Lakes. The remaining charter excursions (3%) took place on tributaries to the Great Lakes.

Charter anglers spent 497,294 hours fishing Michigan's waters of the Great Lakes in 1999. The total catch was 101,800 yellow perch, 65,000 walleye, 39,300 chinook salmon, 33,800 lake trout, 12,000 coho salmon, 12,000 rainbow trout, and 2,500 brown trout.

In addition to the annual report which was sent to charter fishing operators, a MDNR Fisheries Technical Report titled *Charter boat catch and effort from the Michigan waters of the Great Lakes 1998* was completed during 1999 (Rakoczy and Wesander-Russell 2000). A similar report for the 1999 fishery is in preparation.

Literature cited:

Rakoczy G. P and D. Wesander-Russell. 2000. Charter boat catch and effort from the Michigan waters of the Great Lakes, 1998. Michigan Department of Natural Resources Fisheries Technical Report, Ann Arbor, in press.

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Dated: September 30, 2000

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, 1999.

| Species | Total catch per hour | Total catch per excursion | Month | | | | | | | Season |
|--------------------|-------------------------|------------------------------|--------|--------|--------|--------|--------|--------|-------|---------|
| | | | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| Coho salmon | 0.034 | 0.957 | 539 | 1,948 | 1,083 | 858 | 5,133 | 1,239 | 91 | 10,891 |
| Chinook salmon | 0.088 | 2.520 | 58 | 1,549 | 1,709 | 4,625 | 14,509 | 6,030 | 203 | 28,683 |
| Rainbow trout | 0.034 | 0.969 | 341 | 1,349 | 1,460 | 1,723 | 2,049 | 2,867 | 1,236 | 11,025 |
| Brown trout | 0.007 | 0.211 | 612 | 278 | 139 | 446 | 708 | 190 | 30 | 2,403 |
| Lake trout | 0.062 | 1.779 | 28 | 2,598 | 4,231 | 6,631 | 6,027 | 731 | 6 | 20,252 |
| Yellow perch | 0.130 | 3.698 | 25,290 | 2,548 | 2,384 | 8,132 | 2,408 | 1,310 | 18 | 42,090 |
| Walleye | 0.006 | 0.163 | 16 | 256 | 459 | 361 | 283 | 226 | 259 | 1,860 |
| Other | 0.001 | 0.021 | 26 | 16 | 79 | 20 | 43 | 24 | 26 | 234 |
| Lamprey on: | | | | | | | | | | |
| Chinook salmon | | | | 1 | 2 | 5 | 38 | 6 | | 52 |
| Lake trout | | | | 34 | 52 | 80 | 73 | 8 | | 247 |
| Angler hours | | | 16,537 | 40,157 | 50,043 | 72,457 | 99,629 | 38,378 | 6,920 | 324,119 |
| Angler trips | | | 2,873 | 6,642 | 8,148 | 12,112 | 16,262 | 6,532 | 1,001 | 53,570 |
| Anglers | | | | | | | | | | |
| Resident | | | 1,737 | 4,176 | 5,516 | 8,352 | 11,592 | 4,726 | 481 | 36,580 |
| Nonresident | | | 1,136 | 2,469 | 2,632 | 3,765 | 4,674 | 1,810 | 520 | 17,006 |
| Charter excursions | | | 344 | 1,285 | 1,729 | 2,552 | 3,609 | 1,562 | 300 | 11,381 |

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, 1999.

| Species | Total catch per hour | Total catch per excursion | Month | | | | | | | Season |
|--------------------|-------------------------|------------------------------|-------|-------|-------|--------|--------|-------|-----|--------|
| | | | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| Coho salmon | 0.009 | 0.203 | 48 | 257 | 148 | 97 | 65 | 19 | 1 | 635 |
| Chinook salmon | 0.157 | 3.367 | 49 | 689 | 591 | 3,003 | 4,682 | 1,397 | 104 | 10,515 |
| Rainbow trout | 0.013 | 0.269 | 103 | 69 | 125 | 312 | 156 | 64 | 11 | 840 |
| Brown trout | 0.002 | 0.041 | 11 | 10 | 9 | 40 | 36 | 22 | 0 | 128 |
| Lake trout | 0.117 | 2.519 | 11 | 1,734 | 2,022 | 2,074 | 1,823 | 202 | 0 | 7,866 |
| Yellow perch | 0.084 | 1.811 | 0 | 132 | 92 | 1,432 | 2,241 | 1,759 | 0 | 5,656 |
| Walleye | 0.034 | 0.738 | 7 | 35 | 110 | 1,573 | 541 | 39 | 0 | 2,305 |
| Other | 0.011 | 0.239 | 0 | 65 | 76 | 332 | 223 | 49 | 0 | 745 |
| Lamprey on: | | | | | | | | | | |
| Chinook salmon | | | 2 | 29 | 28 | 157 | 201 | 56 | 6 | 479 |
| Lake trout | | | 0 | 39 | 41 | 33 | 28 | 4 | 0 | 145 |
| Angler hours | | | 1,291 | 7,408 | 8,852 | 19,883 | 22,042 | 7,257 | 401 | 67,133 |
| Angler trips | | | 202 | 1,236 | 1,550 | 3,471 | 3,998 | 1,335 | 63 | 11,855 |
| Anglers | | | | | | | | | | |
| Resident | | | 192 | 1,161 | 1,404 | 2,958 | 3,325 | 1,207 | 54 | 10,301 |
| Nonresident | | | 17 | 83 | 146 | 516 | 677 | 128 | 9 | 1,576 |
| Charter excursions | | | 73 | 317 | 410 | 916 | 1,036 | 348 | 23 | 3,123 |

Table 3.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on Lake Erie, 1999.

| Species | Total catch per hour | Total catch per excursion | Month | | | | | | | Season |
|--------------------|-------------------------|------------------------------|-------|-------|--------|--------|--------|--------|-------|--------|
| | | | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| Coho salmon | 0.000 | 0.002 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 |
| Chinook salmon | 0.000 | 0.000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rainbow trout | 0.001 | 0.029 | 0 | 1 | 16 | 9 | 44 | 0 | 0 | 70 |
| 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 | 0.672 | 20.905 | 47 | 294 | 856 | 2,697 | 22,779 | 18,549 | 4,532 | 49,754 |
| Walleye | 0.800 | 24.864 | 103 | 7,189 | 33,483 | 16,945 | 453 | 1,003 | 1 | 59,177 |
| Other | 0.022 | 0.675 | 0 | 376 | 794 | 362 | 10 | 41 | 24 | 1,607 |
| Lamprey on: | | | | | | | | | | |
| Chinook salmon | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lake trout | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Angler hours | | | 323 | 9,082 | 34,077 | 19,883 | 5,029 | 4,737 | 875 | 74,006 |
| Angler trips | | | 46 | 1,579 | 5,229 | 3,586 | 936 | 939 | 172 | 12,487 |
| Anglers | | | | | | | | | | |
| Resident | | | 38 | 1,380 | 4,593 | 3,230 | 869 | 874 | 162 | 11,146 |
| Nonresident | | | 8 | 199 | 642 | 356 | 72 | 65 | 10 | 1,352 |
| Charter excursions | | | 13 | 326 | 1,052 | 567 | 197 | 191 | 34 | 2,380 |

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, 1999.

| Species | Total catch per hour | Total catch per excursion | Month | | | | | | | Season |
|--------------------|-------------------------|------------------------------|-------|-----|-------|-------|-------|-------|-----|--------|
| | | | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| Coho salmon | 0.023 | 0.832 | 0 | 32 | 178 | 117 | 136 | 41 | 1 | 505 |
| Chinook salmon | 0.006 | 0.204 | 0 | 0 | 10 | 52 | 48 | 14 | 0 | 124 |
| Rainbow trout | 0.003 | 0.099 | 0 | 3 | 14 | 7 | 30 | 6 | 0 | 60 |
| Brown trout | 0.000 | 0.003 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Lake trout | 0.263 | 9.331 | 0 | 181 | 1,119 | 2,253 | 1,794 | 304 | 13 | 5,664 |
| 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 | 0 | 0 | 1 | 1 | 3 | 0 | 5 |
| Lamprey on: | | | | | | | | | | |
| Chinook salmon | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lake trout | | | 0 | 0 | 9 | 8 | 6 | 2 | 1 | 26 |
| Angler hours | | | 0 | 818 | 4,563 | 8,173 | 6,667 | 1,218 | 72 | 21,510 |
| Angler trips | | | 0 | 135 | 540 | 1,060 | 941 | 187 | 12 | 2,875 |
| Anglers | | | | | | | | | | |
| Resident | | | 0 | 93 | 286 | 479 | 419 | 132 | 5 | 1,414 |
| Nonresident | | | 0 | 42 | 258 | 581 | 522 | 55 | 7 | 1,465 |
| Charter excursions | | | 0 | 28 | 112 | 220 | 197 | 46 | 4 | 607 |

Table 5.—Total catch per hour, catch per excursion, number caught, and fishing effort (angler hours, trips, and charter excursions) for charter boats on Lake St. Clair and the St. Clair River system, 1999.

| Species | Total catch per hour | Total catch per excursion | Month | | | | | | | Season |
|--------------------|-------------------------|------------------------------|-------|-------|-------|-------|-------|-------|-----|--------|
| | | | Apr | May | Jun | Jul | Aug | Sep | Oct | |
| 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 | 0.000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 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 | 0.413 | 11.172 | 50 | 575 | 576 | 815 | 748 | 802 | 780 | 4,346 |
| Walleye | 0.163 | 4.419 | 280 | 288 | 489 | 420 | 206 | 36 | 0 | 1,719 |
| Other | 0.317 | 8.568 | 50 | 262 | 832 | 998 | 1,012 | 173 | 6 | 3,333 |
| Lamprey on: | | | | | | | | | | |
| Chinook salmon | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lake trout | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Angler hours | | | 681 | 1,059 | 2,087 | 2,464 | 2,331 | 1,563 | 341 | 10,526 |
| Angler trips | | | 99 | 162 | 326 | 380 | 349 | 221 | 54 | 1,591 |
| Anglers | | | | | | | | | | |
| Resident | | | 66 | 162 | 323 | 339 | 330 | 212 | 52 | 1,484 |
| Nonresident | | | 33 | 0 | 3 | 41 | 19 | 9 | 2 | 107 |
| Charter excursions | | | 30 | 46 | 76 | 89 | 81 | 53 | 14 | 389 |