# 2000 SURVEY OF RECREATIONAL FISHING IN CANADA 

## Selected Results for the Great Lakes Fishery



Economic and Commercial Analysis
Report No. 168

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## June 2003

Statistical Services<br>Economic and Policy Analysis Directorate<br>Department of Fisheries and Oceans<br>Ottawa, Ontario<br>K1A 0E6

Economic and Commercial Analysis
Report No. 168

# PUBLISHED BY: 

Statistical Services<br>Department of Fisheries and Oceans<br>Ottawa, Ontario<br>K1A 0E6

(C) Minister of Public Works and Government Services Canada 2003

Catalogue Number: Fs 66-5/168E
ISBN 0-662-34486-3

ISSN 0843-5626

Correct citation for this publication:
Economic and Policy Analysis Directorate, 2003
2000 Survey of Recreational Fishing in Canada
Selected Results for the Great Lakes Fishery
Economic and Commercial Analysis Report No. 168:86 pages

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## 1. Data Source

The tables and charts presented in this report have been prepared using data from the Ontario component of the 2000 Survey of Recreational Fishing in Canada, a nationally coordinated study conducted at five-year intervals in all provinces and territories. The purpose of the survey is to provide data on a wide variety of topics of interest to fisheries managers at the various levels of government. The results presented in this report reflect data specifically defined for the Great Lakes Fishery.

## 2. Definition of "Great Lakes areas"

Anglers were asked to provide the name of the lake, river or stream on which they fished, the nearest town or village, the number of days fished, the number of fish caught and kept by species as well as other attitudinal and socio-economic information regarding their fishing activities. Estimates for Great Lakes waters were produced using the geographic coding used to identify each town, grouped according to their proximity to Great Lakes waters. The areas defined by the grouped codes form a continuous border along the system, generally one township deep ( 8 to 24 kilometres). This definition was used to facilitate comparison with the broader definition used in the United States survey. Individuals fishing tributaries of the Great Lakes further inland than what is defined by the geographic coding are not included as participants in the Great Lakes fishery.

A map detailing the Great Lakes areas is provided in Appendix 1. Specifically, these areas are defined as follows:

St. Lawrence River: East of Amherstview to the Ontario-Quebec border.
Lake Ontario: West from Amherstview to the Niagara peninsula, including the Niagara River to the eastern edge of the city of Fort Erie.

Note: In previous reports, Kingston was considered to be the dividing line between the St. Lawrence River and Lake Ontario. Amherstview is now used to conform to the Province of Ontario's fisheries management zones.

Lake Erie: West from Fort Erie to Amherstburg.
Lake St. Clair: North from Amherstburg to the southern edge of Sarnia (including the Detroit and St. Clair rivers).

Lake Huron: From Sarnia north to Sault Ste. Marie including the St. Mary's River.

Lake Superior: From north of Sault Ste. Marie to the Ontario-Wisconsin border.

## 3. Estimates of Effort and Angler Profile

All estimates of effort and numbers are for adults (18 years of age and over). Averages for each lake are based on the numbers of participants determined for each, while those for the system as a whole are based on the total number of participants on any of the lakes in the system (see Table 1). Information in tables referring to totals for Ontario is based on the activities of Great Lakes anglers only. This information is presented in order to reflect the relative degree of importance associated with the Great Lakes when compared to all fishing activities of Great Lakes anglers in Ontario.

## 4. Expenditures

Although expenditures were collected on a household basis, allocation for the Great Lakes fishery was based on the fishing activity of individuals. The following procedure was used:

- if all days were spent on the Great Lakes system, all expenditures were assigned to the system. Expenditures for each water body within the system were allocated on the basis of the proportion of time spent on each water body.
- if the days spent on the Great Lakes system represented only a subset of all days in Ontarie, the portion of the expenditures to be assigned to the system was estimated using the proportion of activity on the system. Estimates by water body within the system were then allocated on the basis of the amount of activity on each as a percentage of all days on the Great Lakes system.


## 5. Major Purchases, Investments and Package Deals

In the 1985 report on the Great Lakes fishery, no attempt was made to allocate expenditures made on major purchases and investments or package deals insofar as such purchases could not be "attributed" to Great Lakes fishing. This position was reconsidered in 1990 and was maintained since then. Expenditures for major purchases and investments have been provided using the allocation of expenditure dollars described above. This has been done both for expenditures made in whole or in part for recreational fishing and for the estimated amount directly attributable to recreational fishing. Expenses incurred for package deals have been allocated on the basis of only those packages purchased specifically on each of the Great Lakes.

## 6. Data Processing and Data Availability

Standard coding and editing procedures used in the 2000 Survey of Recreational Fishing in Canada were used to prepare the data in this report. Data was analysed using SPSS/PC Version 11.5. System files and raw data files can be generated for analysis.

## 7. Reliability

Because the information provided in this report is a subset of a larger survey, the reliability of the data should be considered when making statements with respect to the data. It should be noted that all data are presented without rounding to the nearest hundred or thousand. This is not intended to reflect the degree of reliability of the data but was done in this way to facilitate production of tables to reflect data generated from the system. A table indicating the reliability of key variables (as coefficients of variation) is provided in Appendix 3. The sampling methodology was identical to 1995. Anglers were chosen from the "Outdoors Card" database instead of the usual telephone interview method. Comparisons with reports prior to 1995 should not be attempted.

## 8. Contact - Further Information

Additional information or clarification of the results presented in this report may be obtained by contacting the Department of Fisheries and Oceans using the information provided below.

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## 9. Highlights

- an estimated 469,128 anglers fished on the Great Lakes in 2000 , of which 336,632 were residents of Ontario and 132,496 were visitors to Ontario, primarily from the United States
- Great Lake anglers were mostly male (85\%) with an average age of 42 years old whereas female anglers averaged 38 years of age
- over 5.3 million days were spent fishing on the Great Lakes in 2000, with residents averaging 13.1 days, non-resident Canadians 5.4 days and non-resident foreigners 7.1 days
- most of these angler days were spent fishing on Lake Huron ( 2.5 million) and on Lake Ontario ( 1.3 million). The same two lakes were the most popular for ice fishing
- Great Lakes anglers caught a total of 41.1 million fish of all species of which 25.5 million were in the Great Lakes System
- of all fish retained on the Great Lakes, perch ranked first in terms of numbers at 2.8 million, followed in order by walleye ( 1.4 million), smelt ( 1.1 million) and smallmouth bass ( 0.6 million)
- anglers retained $31 \%$ of all fish caught from the Great Lakes ranging from $12 \%$ from Lake Ontario to $44 \%$ from Lake St. Clair
- Great Lakes anglers kept over $50 \%$ of only four species: splake ( $65 \%$ ), smelt ( $64 \%$ ), sturgeon (57\%) and walleye (54\%)
- Great Lakes anglers spent an estimated $\$ 390$ million on durable goods used in whole or in part for recreational fishing, allocated on the basis of their Great Lakes fishing activity
- of this amount, they attributed $\$ 201$ million ( $52 \%$ ) to their recreational fishing activities on the Great Lakes system in 2000
- they also spent $\$ 214$ million on goods and services directly related to their fishing activities, averaging $\$ 455$ per angler


## 10. Comparisons With 1995 Survey

- The number of anglers who fished on the Great Lakes in 2000 dropped by $15.1 \%$ since 1995 mainly due to a decrease of $30.6 \%$ in the number of resident Ontario anglers and despite an increase of $96 \%$ in the number of visitors to Ontario, primarily from the United States.
- The largest decrease in the number of resident anglers occurred on Lake Superior (46\%) followed by Lake Ontario (44\%) and the smallest decrease was on the St. Lawrence River (8\%).
- There was a decrease of almost $25 \%$ in the number of days fished on the Great Lakes of which residents accounted for a $33 \%$ drop, since 1995.
- The largest decrease in days fished by resident anglers occurred on the St.-Lawrence River (62\%) followed by Lake St. Clair (61\%) and Lake Superior (58\%) and the smallest decrease was on Lake Huron (13\%).
- The number of fish caught on the Great Lakes system decreased by $21.6 \%$ with the St. Lawrence river catch decreasing by $56.9 \%$ while the Lake Erie catch was the only one showing an increase since 1995 (41.3\%). A large portion of this decrease was due to perch harvests which dropped by $41 \%$ overall, which includes a $66 \%$ drop on the St. Lawrence River and a $60 \%$ decrease on Lake St. Clair since 1995.
- The number of fish kept on the Great Lakes system decreased by $41.3 \%$ with the St. Lawrence River harvest showing the most dramatic reduction, declining by $74.2 \%$. The Lake Erie catch was the only one showing an increase since 1995 (58.8\%). A large portion of the decrease was due to perch harvests that dropped by $38 \%$ overall, much of that ( $80 \%$ ) occurred on the St. Lawrence River since 1995. The number of walleye kept from Lake Huron increased by $203 \%$. The number of smelts retained increased dramatically on both Lake Erie and Lake Superior.
- Great Lakes anglers increased the amount (to $\$ 390$ million) spent on durable goods used in whole or in part for recreational fishing by over $37 \%$ from 1995. The most notable increase was seen in Lake Erie anglers whose investments escalated by $119 \%$ followed by Lake Huron anglers with $105 \%$. Special vehicles, camping equipment and boating equipment were the big sellers, especially among foreign anglers.
- The amount attributable to recreational fishing also increased (to $\$ 201$ million) by $41.5 \%$ with Lake Superior and Lake Erie both showing increases of over 100\%.
- Great Lakes anglers spent $\$ 214$ million on goods and services directly related to their fishing activities, averaging $\$ 455$ per angler. This was only a $2.8 \%$ decrease in overall expenditure. Lake St. Clair showed a $45 \%$ increase in expenditures since 1995 followed by Lake Huron with $20 \%$. There was a decrease in all other areas.

In May, 2000, the Department of Fisheries and Oceans, in cooperation with all federal, provincial and territorial licensing agencies, undertook the 2000 Survey of Recreational Fishing in Canada.

Information on angling in Canada has been collected at five-year intervals since 1975. Since 1980, the Great Lakes Fishery Commission has requested that information specific to the Great Lakes system be developed in order that they could determine the economic importance of this fishery. This request was made of both the Department of Fisheries and Oceans and the Fish and Wildlife Service of the United States Department of the Interior since national surveys were being conducted by both agencies.

The surveys are no longer carried out in the same year. Canada has maintained the original five-year interval whereas in the U.S., the survey is conducted to coincide with census years.

Data has been generated to reflect activity by both residents of the province and visitors who fished in Ontario and, more specifically, on the Great Lakes system.

RÉSUMÉ

En may, 2000, le ministère des Pêches et des Océans, de concert avec tous les organismes fédéraux, provinciaux et territoriaux chargés de délivrer les permis, a réalisé l'Enquête sur la pêche récréative au Canada en 2000.

L'information sur la pêche récréative au Canada est recueillie aux cinq ans depuis la première enquête en 1975. La Commission des pêcheries des Grands Lacs a réclamé depuis 1980 des données particulières aux Grands Lacs afin de pouvoir établir l'importance économique de la pêche qui s'y pratique. Cette demande a été faite au ministère des Pêches et des Océans et au Fish and Wildlife Service du Département de l'Intérieur des États-Unis, les deux organismes chargés des enquêtes nationales.

Les enquêtes des deux pays n'ont plus lieu la même année. Le Canada continue de suivre son plan quinquennal tandis qu'aux États-Unis, l'enquête coïncide avec le recensement.

Les résultats reflètent la pêche récréative pratiquée par les Ontariens et les visiteurs en Ontario, et plus spécifiquement, dans le réseau des Grands Lacs.

## TABLES AND FIGURES

TABLE 1
Profile and Effort Information for All Anglers in the Great Lakes Fishery

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Great Lakes System ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residents |  |  |  |  |  |  |  |
| Number of anglers | 100,635 | 68,591 | 19,781 | 159,857 | 16,480 | 17,183 | 336,632 |
| average age | 41.3 | 42.6 | 42.3 | 41.2 | 41.8 | 39.1 | 41.7 |
| Males . | 89,012 | 60,544 | 17,287 | 129,438 | 14,973 | 14,618 | 283,300 |
| average age | 42.2 | 42.7 | 42.8 | 41.9 | 42.2 | 39.3 | 42.4 |
| Females | 11,623 | 8,047 | 2,494 | 30,420 | 1,507 | 2,565 | 53,333 |
| average age | 35.0 | 41.8 | 39.2 | 38.0 | 38.5 | 37.9 | 38.3 |
| Total days fished | 1,268,257 | 543,437 | 243,110 | 2,073,887 | 137,365 | 140,423 | 4,406,478 |
| average days | 12.6 | 7.9 | 12.3 | 13.0 | 8.3 | 8.2 | 13.1 |
| Days icefishing | 110,239 | 25,415 | 30,676 | 128,499 | 19,159 | 10,411 | 324,399 |
| Icefishing (\%) | 8.7 | 4.7 | 12.6 | 6.2 | 13.9 | 7.4 | 7.4 |
| Shore Activity (\%) | 46.4 | 36.8 | 48.7 | 41.8 | 29.3 | 41.5 | 41.2 |
| Boat Activity (\%) | 53.6 | 63.2 | 51.3 | 58.2 | 70.7 | 58.5 | 58.8 |
| Nonresident Canadian |  |  |  |  |  |  |  |
| Number of anglers | 4,575 | 223 | 309 | 1,282 | 466 | 2,099 | 7,990 |
| average age | 49.1 | 48.0 | 50.5 | 45.2 | 41.9 | 44.0 | 46.0 |
| Males | 3,906 | 223 | 309 | 1,128 | 309 | 1,943 | 6,849 |
| average age | 50.8 | 48.0 | 50.5 | 46.6 | 45.5 | 44.5 | 47.3 |
| Females | 670 | - | - | 154 | 158 | 158 | 1,142 |
| average age | 40.0 | - | - | 35.0 | 35.0 | 39.0 | 38.5 |
| Total days fished | 15,996 | 1,564 | 463 | 7,773 | 1,548 | 16,157 | 43,501 |
| average days | 3.5 | 7.0 | 1.5 | 6.1 | 3.3 | 7.7 | 5.4 |
| Days icefishing | 954 | - | - | 223 | - | - | 1,177 |
| Icefishing (\%) | 6.0 | - | - | 2.9 | - | - | 2.7 |
| Shore Activity (\%) | 22.8 | 60.0 | 25.0 | 20.2 | 29.3 | 31.7 | 29.6 |
| Boat Activity (\%) | 77.2 | 40.0 | 75.0 | 79.8 | 70.7 | 68.3 | 70.4 |

${ }^{1}$ Refer to "Estimates of Effort and Angler Profile", page vi, section \#3.

TABLE 1
Profile and Effort Information for All Anglers in the Great Lakes Fishery (cont.)

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Great Lakes System ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nonresident Non-Canadian |  |  |  |  |  |  |  |
| Number of anglers | 5,853 | 31,064 | 19,868 | 57,666 | 10,385 | 6,016 | 124,506 |
| average age | 53.7 | 49.6 | 48.5 | 49.6 | 49.4 | 49.2 | 49.6 |
| Males | 5,600 | 28,854 | 17,490 | 48,599. | 9,243 | 5,436 | 109,498 |
| average age | 53.8 | 49.6 | 48.3 | 48.9 | 49.1 | 48.7 | 49.2 |
| Females | 253 | 2,210 | 2,378 | 9,067 | 1,142 | 580 | 15,008 |
| average age | 53.0 | 50.7 | 49.6 | 53.1 | 51.9 | 54.3 | 52.5 |
| Total days fished | 24,737 | 174,028 | 171,903 | 415,589 | 63,783 | 31,553 | 881,593 |
| average days | 4.2 | 5.6 | 8.7 | 7.2 | 6.1 | 5.2 | 7.1 |
| Days icefishing | - | 706 | 2,472 | 6,564 | 131 | - | 9,873 |
| lcefishing (\%) | - | 0.4 | 1.4 | 1.6 | 0.2 | - | 1.1 |
| Shore Activity (\%) | 7.7 | 8.1 | 6.8 | 16.3 | 22.0 | 21.5 | 13.0 |
| Boat Activity (\%) | 92.3 | 91.9 | 93.2 | 83.7 | 78.0 | 78.5 | 87.0 |
| All Anglers |  |  |  |  |  |  |  |
| Number of anglers | 111,063 | 99,878 | 39,958 | 218,805 | 27,331 | 25,297 | 469,128 |
| average age | 42.3 | 44.8 | 45.5 | 43.4 | 44.7 | 41.9 | 43.9 |
| Males | 98,518 | 89,621 | 35,086 | 179,165 | 24,525 | 21,997 | 399,647 |
| average age | 43.1 | 44.9 | 45.6 | 43.9 | 44.8 | 42.1 | 44.3 |
| Females | 12,546 | 10,257 | 4,872 | 39,641 | 2,807 | 3,303 | 69,483 |
| average age | 35.6 | 43.7 | 44.3 | 41.4 | 43.7 | 40.9 | 41.3 |
| Total days fished | 1,308,991 | 719,029 | 415,476 | 2,497,249 | 202,695 | 188,132 | 5,331,571 |
| average days | 11.8 | 7.2 | 10.4 | 11.4 | 7.4 | 7.4 | . 11.4 |
| Days icefishing | 111,193 | 26,121 | 33,147 | 135,286 | 19,291 | 10,411 | 335,450 |
| Icefishing (\%) | 8.5 | 3.6 | 8.0 | 5.4 | 9.5 | 5.5 | 6.3 |
| Shore Activity (\%) | 43.5 | 28.2 | 28.1 | 35.0 | 27.1 | 36.2 | 33.6 |
| Boat Activity (\%) | 56.5 | 71.8 | 71.9 | 65.0 | 72.9 | 63.8 | 66.4 |

${ }^{1}$ Refer to "Estimates of Effort and Angler Profile", page vi, section \#3.

Figure 1
NUMBER OF ANGLERS WHO FISHED IN THE GREAT LAKES AREAS
RESIDENT ANGLERS NONRESIDENT CANADIAN ANGLERS


NONRESIDENT NON-CANADIAN ANGLERS


## TABLE 2

Number of Fish Caught by Species in the Great Lakes Fishery
Resident Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Total Fish Caught in Great Lakes | Total Fish Caught in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 370,512 | 211,999 | 95,442 | 730,119 | 246,705 | 35,346 | 1,690,124 | 3,297,621 | 51.3 |
| Pike | 179,528 | 170,501 | 7,974 | 461,064 | 101,152 | 82,691 | 1,002,911 | 1,781,525 | 56.3 |
| Perch | 1,040,303 | 1,204,651 | 876,049 | 977,573 | 43,994 | 587,025 | 4,729,597 | 7,627,128 | 62.0 |
| Muskellunge | 2,585 | 139 | 10,744 | 5,753 | - | 1,817 | 21,038 | 107,008 | 19.7 |
| Whitefish | 17,843 | 16,573 | 5,271 | 15,915 | 354 | 1,697 | 57,653 | 137,777 | 41.8 |
| Smallmouth Bass | 364,842 | 386,222 | 147,415 | 796,649 | 24,109 | 126,912 | 1,846,149 | 3,871,314 | 47.7 |
| Largemouth bass | 489,558 | 153,811 | 67,863 | 288,409 | - | 48,787 | 1,048,429 | 2,252,116 | 46.6 |
| Rainbow Trout | 185,464 | 25,446 | 5,126 | 267,299 | 8,602 | - | 491,936 | 667,650 | 73.7 |
| Brown Trout | 41,108 | 4,665 | 359 | 10,692 | 215 | - | 57,040 | 98,806 | 57.7 |
| Lake Trout | 51,070 | 4,063 | 839 | 74,173 | 8,285 | 1,618 | 140,048 | 277,511 | 50.5 |
| Brook Trout | 3,033 | 667 | - | 70,248 | 38,035 | - | 111,983 | 268,467 | 41.7 |
| Splake | 298 | 3,033 | - | 24,453 | 8,121 | - | 35,906 | 53,245 | 67.4 |
| Chinook | 262,287 | 1,542 | 3,398 | 235,715 | 1,698 | - | 504,640 | 599,204 | 84.2 |
| Coho | 32,507 | 1,349 | 1,272 | 46,541 | 2,475 | 643 | 84,787 | 139,553 | 60.8 |
| Sturgeon | 3,691 | - | 311 | - | - | - | 4,002 | 5,947 | 67.3 |
| Cattish | 532,171 | 53,997 | 28,938 | 110,466 | 639 | 52,706 | 778,916 | 1,122,330 | 69.4 |
| Crappie | 110,143 | 100,208 | 60,165 | 175,545 | - | 6,239 | 452,300 | 1,167,540 | 38.7 |
| Rock Bass | 739,849 | 333,804 | 68,240 | 619,317 | - | 31,150 | 1,792,361 | 3,367,101 | 53.2 |
| Sunfish | 998,046 | 292,370 | 64,807 | 416,939 | 370 | 90,033 | 1,862,565 | 3,631,157 | 51.3 |
| Smelt | 667,795 | 560,283 | 73,747 | 163,388 | 194,951 | - | 1,660,163 | 1,926,248 | 86.2 |
| Other fish | 143,634 | 115,317 | 21,330 | 40,247 | 2,372 | 781 | 323,682 | 555,731 | 58.2 |
| Total fish | 6,236,268 | 3,640,637 | 1,539,292 | 5,530,507 | 682,077 | 1,067,446 | 18,696,227 | 32,954,979 | 56.7 |
| average per angler | 62.0 | 53.1 | 77.8 | 34.6 | 41.4 | 62.1 | 55.5 |  |  |

## FIGURE 2

## DISTRIBUTION OF FISH CAUGHT BY SPECIES BY RESIDENT ANGLERS IN THE GREAT LAKES AREAS



TABLE 3
Number of Fish Caught by Species in the Great Lakes Fishery Nonresident Canadian Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Total Fish Caught in Great Lakes | Total Fish Caught in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 1,441 | - | 1,235 | 1,544 | 1,243 | 429 | 5,892 | 6,562 | 89.8 |
| Pike | 634 | - | - | 1,706 | 313 | 1,889 | 4,541 | 5,212 | 87.1 |
| Perch | 8,036 | - | - | 19,058 | 618 | 53,930 | 81,642 | 81,761 | 99.9 |
| Muskellunge | - | - | - | - | - | 240 | 240 | 687 | 34.9 |
| Whitefish | 176 | - | - | - | - | - | 176 | 176 | 100.0 |
| Smallmouth Bass | 5,934 | - | 926 | 1,722 | 463 | 14,344 | 23,390 | 24,694 | 94.7 |
| Largemouth bass | 889 | - | - | 2,389 | - | 2,938 | 6,216 | 6,663 | 93.3 |
| Rainbow Trout | 5,354 | - | - | 214 | - | - | 5,568 | 5,568 | 100.0 |
| Brown Trout | 223 | - | - | - | - | - | 223 | 223 | 100.0 |
| Lake Trout | 1,943 | - | - | - | - | - | 1,943 | 1,943 | 100.0 |
| Brook Trout | - | - | - | - | - | - | - | - | - |
| Splake | - | - | - | - | - | - | - | - | - |
| Chinook | 6,988 | - | - | - | - | - | 6,988 | 6,988 | 100.0 |
| Coho | 1,341 | 1,341 | - | - | - | - | 2,681 | 2,681 | 100.0 |
| Sturgeon | - | - | - | - | - | - | - | - | - |
| Catish | 926 | - | - | - | - | 158 | 1,085 | 1,085 | 100.0 |
| Crappie | - | - | - | 3,088 | - | 1,885 | 4,973 | 4,973 | 100.0 |
| Rock Bass | 3,168 | - | - | 5,679 | - | 4,078 | 12,925 | 17,775 | 72.7 |
| Sunfish | 5,305 | - | - | 5,362 | - | 4,863 | 15,530 | 15,710 | 98.9 |
| Smelt | - | - | - | - | - | - | - | - | - |
| Other fish | 618 | - | - | 223 | - | 223 | 1,064 | 2,832 | 37.6 |
| Total fish | 42,974 | 1,341 | 2,161 | 40,986 | 2,637 | 84,976 | 175,076 | 185,531 | 94.4 |
| average per angler | 9.4 | 6.0 | 7.0 | 31.9 | 5.6 | 40.4 | 21.9 |  |  |

FIGURE 3
DISTRIBUTION OF FISH CAUGHT BY SPECIES BY NONRESIDENT CANADIAN ANGLERS IN THE GREAT LAKES AREAS


TABLE 4
Number of Fish Caught by Species in the Great Lakes Fishery Nonresident Non-Canadian Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Total Fish Caught in Great Lakes | Total Fish Caught in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 15,545 | 316,328 | 164,220 | 124,712 | 259,058 | 6,116 | 885,979 | 1,243,260 | 71.3 |
| Pike | 29,499 | 10,812 | 98,642 | 397,651 | 91,967 | 29,492 | 658,063 | 790,036 | 83.3 |
| Perch | 50,916 | 240,180 | 755,299 | 502,927 | 33,867 | 68,167 | 1,651,355 | 2,037,267 | 81.1 |
| Muskellunge | 61 | - | 48,274 | 3,078 | 185 | 192 | 51,790 | 53,621 | 96.6 |
| Whitefish | 236 | 10,874 | 61 | 1,574 | 632 | 393 | 13,770 | 17,138 | 80.3 |
| Smallmouth Bass | 18,103 | 554,957 | 374,590 | 475,739 | 73,750 | 68,862 | 1,566,001 | 1,651,968 | 94.8 |
| Largemouth bass | 5,468 | 22,430 | 99,443 | 88,222 | - | 29,128 | 244,690 | 290,477 | 84.2 |
| Rainbow Trout | 3,034 | 4,327 | 243 | 6,685 | 1,949 | - | 16,238 | 16,784 | 96.7 |
| Brown Trout | 816 | 3,672 | 1,521 | - | 2,098 | - | 8,107 | 8,168 | 99.3 |
| Lake Trout | 4,075 | 926 | - | 12,176 | 28,841 | - | 46,017 | 56,525 | 81.4 |
| Brook Trout | - | 370 | 370 | 1,819 | 12,124 | - | 14,684 | 17,295 | 84.9 |
| Splake | - | 740 | 740 | 525 | 1,402 | - | 3,407 | 3,407 | 100.0 |
| Chinook | 5,334 | - | 2,623 | 48,865 | 1,049 | - | 57,871 | 69,126 | 83.7 |
| Coho | 2,520 | 1,003 | 918 | 26,471 | 1,049 | - | 31,961 | 31,961 | 100.0 |
| Sturgeon | - | - | - | 436 | 1,542 | - | 1,978 | 1,978 | 100.0 |
| Catfish | 787 | 41,412 | 19,432 | 16,927 | 243 | 1,457 | 80,258 | 91,621 | 87.6 |
| Crappie | - | 12,562 | 26,391 | 20,534 | - | 1,184 | 60,672 | 80,849 | 75.0 |
| Rock Bass | 6,187 | 45,213 | 221,163 | 356,967 | 1,718 | 25,326 | 656,574 | 710,617 | 92.4 |
| Sunfish | 6,569 | 12,930 | 105,169 | 97,896 | 607 | 7,251 | 230,422 | 331,626 | 69.5 |
| Smelt | - | 6,072 | - | - | - | - | 6,072 | 6,133 | 99.0 |
| Other fish | 1,162 | 273,923 | 39,635 | 64,317 | 1,967 | 1,139 | 382,142 | 411,045 | 93.0 |
| Total fish | 150,311 | 1,558,730 | 1,958,733 | 2,247,520 | 514,049 | 238,708 | 6,668,051 | 7,920,901 |  |
| average per angler | 25.7 | 50.2 | 98.6 | 39.0 | 49.5 | 39.7 | 53.6 |  |  |

FIGURE 4
DISTRIBUTION OF FISH CAUGHT BY SPECIES BY NONRESIDENT NON-CANADIAN ANGLERS IN THE GREAT LAKES AREAS


## TABLE 5

Number of Fish Caught by Species in the Great Lakes Fishery All Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Total Fish Caught in Great Lakes | Total Fish Caught in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 387,498 | 528,326 | 260,898 | 856,375 | 507,007 | 41,891 | 2,581,995 | 4,547,443 | 56.8 |
| Pike | 209,661 | 181,313 | 106,616. | 860,421 | 193,432 | 114,073 | 1,665,515 | 2,576,772 | 64.6 |
| Perch | 1,099,255 | 1,444,831 | 1,631,348 | 1,499,559 | 78,479 | 709,122 | 6,462,593 | 9,746,156 | 66.3 |
| Muskellunge | 2,646 | 139 | 59,017 | 8,831 | 185 | 2,248 | 73,067 | 161,316 | 45.3 |
| Whitefish | 18,255 | 27,447 | 5,332 | 17,489 | 986 | 2,090 | 71,599 | 155,091 | 46.2 |
| Smallmouth Bass | 388,879 | 941,179 | 522,931 | 1,274,111 | 98,322 | 210,118 | 3,435,540 | 5,547,976 | 61.9 |
| Largemouth bass | 495,915 | 176,241 | 167,306 | 379,020 | - | 80,853 | 1,299,336 | 2,549,256 | 51.0 |
| Rainbow Trout | 193,852 | 29,773 | 5,369 | 274,198 | 10,551 | - | 513,742 | 690,003 | 74.5 |
| Brown Trout | 42,148 | 8,336 | 1,880 | 10,692 | 2,313 | - | 65,370 | 107,197 | 61.0 |
| Lake Trout | 57,087 | 4,988 | 839 | 86,349 | 37,126 | 1,618 | 188,008 | 335,979 | 56.0 |
| Brook Trout | 3,033 | 1,037 | 370 | 72,068 | 50,159 | - | 126,667 | 285,762 | 44.3 |
| Splake | 298 | 3,774 | 740 | 24,978 | 9,523 | - | 39,313 | 56,652 | 69.4 |
| Chinook | 274,609 | 1,542 | 6,020 | 284,580 | 2,747 | - | 569,498 | 675,317 | 84.3 |
| Coho | 36,368 | 3,693 | 2,189 | 73,012 | 3,524 | 643 | 119,429 | 174,196 | 68.6 |
| Sturgeon | 3,691 | - | 311 | 436 | 1,542 | - | 5,980 | 7,926 | 75.5 |
| Catfish | 533,884 | 95,408 | 48,371 | 127,393 | 882 | 54,321 | 860,259 | 1,215,036 | 70.8 |
| Crappie | 110,143 | 112,770 | 86,556 | 199,167 | - | 9,308 | 517,944 | 1,253,362 | 41.3 |
| Rock Bass | 749,204 | 379,017 | 289,403 | 981,963 | 1,718 | 60,554 | 2,461,859 | 4,095,492 | 60.1 |
| Sunfish | 1,009,919 | 305,300 | 169,976 | 520,198 | 977 | 102,147 | 2,108,517 | 3,978,493 | 53.0 |
| Smelt | 667,795 | 566,355 | 73,747 | 163,388 | 194,951 | - | 1,666,235 | 1,932,381 | 86.2 |
| Other fish | 145,414 | 389,240 | 60,965 | 104,788 | 4,339 | 2,143 | 706,888 | 969,608 | 72.9 |
| Total fish | 6;429,554 | 5,200,708 | 3,500,187 | 7,819,013 | 1,198,763 | 1,391,130 | 25,539,355 | 41,061,411 | 62.2 |
| average per angler | 57.9 | 52.1 | 87.6 | 35.7 | 43.9 | 55.0 | 54.4 |  |  |

FIGURE 5
DISTRIBUTION OF FISH CAUGHT BY SPECIES BY ALL ANGLERS IN THE GREAT LAKES AREAS


## TABLE 6

Number of Fish Kept by Species in the Great Lakes Fishery
Resident Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Total Fish Kept in Great Lakes | Total Fish Kept in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 121,242 | 135,046 | 65,597 | 545,465 | 73,943 | 10,037 | 951,330 | 1,600,764 | 59.4 |
| Pike | 25,505 | 14,669 | 655 | 158,280 | 6,709 | 3,640 | 209,458 | 316,957 | 66.1 |
| Perch | 122,559 | 582,992 | 500,216 | 371,329 | 24,316 | 286,038 | 1,887,449 | 3,260,595 | 57.9 |
| Muskellunge | 281 | - | 3,201 | - | - | - | 3,482 | 5,400 | 64.5 |
| Whitefish | 4,385 | 128 | - | 7,301 | 354 | - | 12,169 | 67,364 | 18.1 |
| Smallmouth Bass | 16,245 | 127,418 | 31,677 | 217,991 | 1,505 | 15,856 | 410,692 | 706,957 | 58.1 |
| Largemouth bass | 49,189 | 17,109 | 8,602 | 58,889 | - | 3,847 | 137,636 | 306,612 | 44.9 |
| Rainbow Trout | 36,080 | 19,188 | 2,737 | 132,949 | 6,945 | - | 197,898 | 262,737 | 75.3 |
| Brown Trout | 5,385 | 1,580 | - | 2,991 | 215 | - | 10,172 | 19,575 | 52.0 |
| Lake Trout | 7,727 | 2,988 | 839 | 33,423 | 3,634 | 722 | 49,334 | 119,600 | 41.2 |
| Brook Trout | 2,942 | 510 | - | 5,206 | 23,330 | - | 31,988 | 108,267 | 29.5 |
| Splake | 144 | 625 | - | 14,525 | 8,121 | - | 23,415 | 35,972 | 65.1 |
| Chinook | 56,645 | 1,230 | 912 | 157,239 | 1,698 | - | 217,724 | 268,362 | 81.1 |
| Coho | 13,358 | 1,198 | 1,078 | 25,693 | 2,014 | 643 | 43,985 | 72,740 | 60.5 |
| Sturgeon | 2,214 | - | - | - | . - | - | 2,214 | 2,815 | 78.7 |
| Catfish | 80,003 | 10,639 | 5,263 | 46,372 | - | 47,066 | 189,344 | 230,307 | 82.2 |
| Crappie | 9,037 | 42,913 | 24,349 | 66,182 | - | 1,372 | 143,853 | 343,365 | 41.9 |
| Rock Bass | 12,650 | 14,422 | 6,093 | 17,278 | - | - | 50,444 | 188,911 | 26.7 |
| Sunfish | 32,180 | 12,753 | 22,954 | 2,549 | - | 45,625 | 116,060 | 430,176 | 27.0 |
| Smelt | 95,468 | 559,664 | 57,194 | 154,562 | 194,951 | - | 1,061,838 | 1,274,953 | 83.3 |
| Other fish | 5,541 | 7,167 | 1,488 | 3,626 | 1,087 | 781 | 19,691 | 74,441 | 26.5 |
| Total fish | 698,781 | 1,552,240 | 732,855 | 2,021,849 | 348,822 | 415,628 | 5,770,175 | 9,696,869 | 59.5 |
| average per angler | 6.9 | 22.6 | 37.0 | 12.6 | 21.2 | 24.2 | 17.1 |  |  |

FIGURE 6
DISTRIBUTION OF FISH KEPT BY SPECIES BY RESIDENT ANGLERS IN THE GREAT LAKES AREAS


TABLE 7
Number of Fish Kept by Species in the Great Lakes Fishery
Nonresident Canadian Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Láke St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Total Fish Kept in Great Lakes | Total Fish Kept in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 605 | - | 618 | 926 | 1,085 | - | 3,234 | 3,457 | 93.5 |
| Pike | - | - | - | 605 | 158 | - | 764 | 1,211 | 63.1 |
| Perch | 4,632 | - | - | 7,719 | - | 12,635 | 24,986 | 24,986 | 100.0 |
| Muskellunge | - | - | - | - | - | - | - | - | - |
| Whitefish | - | - | - | - | - | - | - | - | - |
| Smallmouth Bass | 2,011 | - | - | 475 | 463 | 447 | 3,396 | 3,843 | 88.4 |
| Largemouth bass | 618 | - | - | 447 | - | 475 | 1,540 | 1,540 | 100.0 |
| Rainbow Trout | 3,367 | - | - | 214 | - | - | 3,581 | 3,581 | 100.0 |
| Brown Trout | 223 | - | - | - | - | - | 223 | 223 | 100.0 |
| Lake Trout | 1,583 | - | - | - | - | - | 1,583 | 1,583 | 100.0 |
| Brook Trout | - | - | - | - | - | - | - | - | - |
| Splake | - | - | - | - | - | - | - | - | - |
| Chinook | 3,367 | - | - | - | - | - | 3,367 | 3,367 | 100.0 |
| Coho | 1,341 | 447 | - | - | - | - | 1,788 | 1,788 | 100.0 |
| Sturgeon | - | - | - | - | - | - | - | - | - |
| Catfish | - | - | - | - | - | - | - | - | - |
| Crappie | - | - | - | - | - | - | - | - | - |
| Rock Bass | - | - | - | - | - | - | - | - | - |
| Sunfish | - | - | - | - | - | - | - | - | - |
| Smelt | - | - | - | - | - | - | - | - | - |
| Other fish | - | - | - | - | - | - | - | - | - |
| Total fish | 17,747 | 447 | 618 | 10,387 | 1,706 | 13,557 | 44,461 | 45,579 | 97.5 |
| average per angler | 3.9 | 2.0 | 2.0 | 8.1 | 3.7 | 6.5 | 5.6 |  |  |

## FIGURE 7

DISTRIBUTION OF FISH KEPT BY SPECIES BY NONRESIDENT CANADIAN ANGLERS IN THE GREAT LAKES AREAS


TABLE 8
Number of Fish Kept by Species in the Great Lakes Fishery Nonresident Non-Canadian Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | $\begin{gathered} \text { St. Lawrence } \\ \text { River } \end{gathered}$ | Total Fish Kept in Great Lakes | Total Fish Kept in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 8,222 | 228,941 | 100,079 | 68,692 | 31,326 | 2,462 | 439,722 | 491,166 | 89.5 |
| Pike | 5,524 | 1,660 | 2,687 | 80,424 | 9,508 | 6,712 | 106,514 | 115,557 | 92.2 |
| Perch | 11,665 | 150,704 | 455,225 | 267,586 | 11,017 | 12,312 | 908,510 | 1,148,639 | 79.1 |
| Muskellunge | - | - | 185 | 218 | 185 | - | 588 | 588 | 100.0 |
| Whitefish | 236 | 1,528 | - | 1,574 | 632 | 393 | 4,363 | 7,731 | 56.4 |
| Smallmouth Bass | 5,175 | 70,444 | 24,152 | 107,789 | 3,409 | 9,021 | 219,988 | 230,548 | 95.4 |
| Largemouth bass | 1,429 | 2,062 | 4,097 | 18,301 | - | 4,099 | 29,988 | 32,844 | 91.3 |
| Rainbow Trout | 1,275 | 1,967 | - | 2,237 | 1,511 | - | 6,990 | 6,990 | 100.0 |
| Brown Trout | 131 | 2,178 | 1,311 | - | - | - | 3,621 | 3,621 | 100.0 |
| Lake Trout | 1,712 | 926 | - | 7,162 | 10,509 | - | 20,309 | 22,007 | 92.3 |
| Brook Trout | - | 370 | 370 | - | 4,836 | - | 5,576 | 5,759 | 96.8 |
| Splake | - | 740 | 740 | 525 | 131 | - | 2,136 | 2,136 | 100.0 |
| Chinook | 1,793 | - | 2,623 | 16,272 | 131 | - | 20,819 | 21,004 | 99.1 |
| Coho | 784 | - | 918 | 4,010 | 918 | - | 6,630 | 6,630 | 100.0 |
| Sturgeon | - | - | - | - | 1,180 | - | 1,180 | 1,180 | 100.0 |
| Catfish | 787 | 14,259 | 16,156 | 2,600 | 243 | - | 34,046 | 39,705 | 85.7 |
| Crappie | - | 4,744 | 20,691 | 10,135 | - | - | 35,570 | 50,335 | 70.7 |
| Rock Bass | - | 10,593 | 92,667 | 22,820 | - | 2,535 | 128,615 | 134,930 | 95.3 |
| Sunfish | 262 | 4,209 | 72,109 | 14,457 | - | - | 91,037 | 158,596 | 57.4 |
| Smelt | - | 6,072 | - | - | - | - | 6,072 | 6,133 | 99.0 |
| Other fish | 349 | 38,530 | 29,175 | 19,716 | 393 | 192 | 88,356 | 113,778 | 77.7 |
| Total fish | 39,343 | 539,926 | 823,186 | 644,518 | 75,931 | 37,727 | 2,160,631 | 2,599,876 | 83.1 |
| average per angler | 6.7 | 17.4 | 41.4 | 11.2 | 7.3 | 6.3 | 17.4 |  |  |

FIGURE 8
DISTRIBUTION OF FISH KEPT BY SPECIES BY NONRESIDENT NON-CANADIAN ANGLERS IN THE GREAT LAKES AREAS


TABLE 9
Number of Fish Kept by Species in the Great Lakes Fishery All Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Total Fish Kept in Great Lakes | Total Fish Kept in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Walleye | 130,069 | 363,987 | 166,294 | 615,083 | 106,354 | 12,499 | 1,394,286 | 2,095,387 | 66.5 |
| Pike | 31,029 | 16,329 | 3,342 | 239,309 | 16,376 | 10,352 | 316,736 | 433,725 | 73.0 |
| Perch | 138,856 | 733,696 | 955,441 | 646,634 | 35,333 | 310,985 | 2,820,944 | 4,434,220 | 63.6 |
| Muskellunge | 281 | - | 3,386 | 218 | 185 | - | 4,070 | 5,988 | 68.0 |
| Whitefish | 4,621 | 1,656 | - | 8,874 | 986 | 393 | 16,532 | 75,095 | 22.0 |
| Smallmouth Bass | 23,430 | 197,862 | 55,829 | 326,255 | 5,377 | 25,324 | 634,077 | 941,348 | 67.4 |
| Largemouth bass | 51,235 | 19,171 | 12,699 | 77,637 | - | 8,421 | 169,164 | 340,996 | 49.6 |
| Rainbow Trout | 40,721 | 21,155 | 2,737 | 135,400 | 8,456 | - | 208,469 | 273,307 | 76.3 |
| Brown Trout | 5,740 | 3,758 | 1,311 | 2,991 | 215 | - | 14,016 | 23,419 | 59.8 |
| Lake Trout | 11,022 | 3,914 | 839 | 40,585 | 14,143 | 722 | 71,226 | 143,190 | 49.7 |
| Brook Trout | 2,942 | 881 | 370 | 5,206 | 28,166 | - | 37,565 | 114,025 | 32.9 |
| Splake | 144 | 1,366 | 740 | 15,049 | 8,252 | - | 25,551 | 38,108 | 67.0 |
| Chinook | 61,805 | 1,230 | 3,535 | 173,511 | 1,829 | - | 241,911 | 292,733 | 82.6 |
| Coho | 15,483 | 1,644 | 1,996 | 29,703 | 2,932 | 643 | 52,402 | 81,157 | 64.6 |
| Sturgeon | 2,214 | - | - | - | 1,180 | - | 3,395 | 3,995 | 85.0 |
| Catfish | 80,790 | 24,899 | 21,420 | 48,972 | 243 | 47,066 | 223,390 | 270,012 | 82.7 |
| Crappie | 9,037 | 47,657 | 45,040 | 76,317 | - | 1,372 | 179,423 | 393,700 | 45.6 |
| Rock Bass | 12,650 | 25,015 | 98,761 | 40,098 | - | 2,535 | 179,059 | 323,841 | 55.3 |
| Sunfish | 32,442 | 16,961 | 95,062 | 17,006 | - | 45,625 | 207,097 | 588,772 | 35.2 |
| Smelt | 95,468 | 565,737 | 57,194 | 154,562 | 194,951 | - | 1,067,911 | 1,281,086 | 83.4 |
| Other fish | 5,891 | 45,697 | 30,663 | 23,343 | 1,480 | 973 | 108,047 | 188,219 | 57.4 |
| Total fish | 755,871 | 2,092,613 | 1,556,659 | 2,676,754 | 426,459 | 466,911 | 7,975,268 | 12,342,324 | 64.6 |
| average per angler | 6.8 | 21.0 | 39.0 | 12.2 | 15.6 | 18.5 | 17.0 |  |  |

FIGURE 9
DISTRIBUTION OF FISH KEPT BY SPECIES BY ALL ANGLERS IN THE GREAT LAKES AREAS


TABLE 10
Major Purchases and Investments Allocated to the Great Lakes Fishery Resident Anglers Who Fished on the Great Lakes

Major Purchases and Investments

|  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | River | Amount Spent <br> in Great Lakes | Amount Spent <br> in Ontario |
| Percent in <br> Great Lakes |  |  |  |  |  |  |  |  |
| Fish equipment | $6,309,784$ | $2,567,786$ | 876,319 | $8,125,916$ | 541,090 | 812,322 | $19,233,218$ | $32,266,459$ |
| Boating equipment | $52,391,403$ | $24,643,507$ | $3,319,607$ | $58,283,755$ | $5,196,513$ | $4,348,512$ | $148,183,297$ | $203,096,501$ |
| Camping equipment | $4,709,611$ | $6,261,221$ | 368,469 | $9,310,186$ | $13,794,468$ | 213,425 | $34,657,381$ | $48,828,903$ |
| Vehicles | $14,144,751$ | $11,564,616$ | 233,548 | $89,192,859$ | $4,963,079$ | $10,733,842$ | $130,832,694$ | $230,536,594$ |
| Land-Buildings | $4,270,998$ | $1,465,589$ | 169,645 | $16,571,693$ | 16,654 | $1,150,964$ | $23,645,544$ | $42,960,276$ |
| Other investments | $2,183,575$ | 422,653 | 377,750 | $4,218,949$ | 720,839 | 343,572 | $8,267,338$ | $15,205,337$ |
| Total investments | $84,010,122$ | $46,925,372$ | $5,345,338$ | $185,703,358$ | $25,232,644$ | $17,602,638$ | $364,819,472$ | $572,894,070$ |
| average per angler | 834.79 | 684.13 | 270.23 | $1,161.68$ | $1,531.11$ | $1,024.42$ | $1,083.73$ | 64.4 |

Major Purchases and Investments Attributable to Recreational Fishing

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish equipment | 6,309,784 | 2,567,786 | 876,319 | 8,125,916 | 541,090 | 812,322 | 19,233,218 | 32,266,459 | 59.6 |
| Boating equipment | 33,938,356 | 18,999,270 | 3,029,925 | 33,033,733 | 5,178,289 | 3,350,058 | 97,529,630 | 140,348,495 | 69.5 |
| Camping equipment | 2,452,382 | 3,059,373 | 137,670 | 6,311,771 | 9,632,016 | 75,041 | 21,668,253 | 30,749,228 | 70.5 |
| Vehicles | 2,257,882 | 3,821,607 | 114,368 | 18,099,692 | 2,496,044 | 2,438,255 | 29,227,848 | 53,112,440 | 55.0 |
| Land-Buildings | 2,190,823 | 764,667 | 139,589 | 6,701,513 | 16,654 | 675,515 | 10,488,762 | 19,632,351 | 53.4 |
| Other investments | 1,853,278 | 369,494 | 341,654 | 3,323,164 | 625,492 | 185,238 | 6,698,321 | 12,177,403 | 55.0 |
| Total investments | 49,002,506 | 29,582,197 | 4,639,525 | 75,595,789 | 18,489,586 | 7,536,429 | 184,846,032 | 288,286,376 | 64.1 |
| average per angler | 486.93 | 431.28 | 234.54 | 472.89 | 1,121.94 | 438.60 | 549.10 |  |  |

## FIGURE 10

MAJOR PURCHASES ALLOCATED TO GREAT LAKES FISHING ACTIVITIES BY RESIDENT ANGLERS


TABLE 11
Major Purchases and Investments Allocated to the Great Lakes Fishery
Nonresident Canadian Anglers Who Fished on the Great Lakes
Major Purchases and Investments

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish equipment | 68,813 | 4,469 | - | 33,147 | - | 3,168 | 109,597 | 125,122 | 87.6 |
| Boating equipment | 223,444 | - | - | 111,722 | - | - | 335,167 | 782,056 | 42.9 |
| Camping equipment | 24,962 | - | - | 74,886 | - | - | 99,848 | 99,848 | 100.0 |
| Vehicles | 2,138,683 | - | - | 1,069,341 | - | - | 3,208,024 | 7,485,389 | 42.9 |
| Land-Buildings | 13,407 | - | - | - | - | - | 13,407 | 13,407 | 100.0 |
| Other investments | 15,274 | 11,172 | - | 37,443 | - | - | 63,890 | 63,890 | 100.0 |
| Total investments | 2,484,583 | 15,641 | - | 1,326,540 | - | 3,168 | 3,829,932 | 8,569,711 | 44.7 |
| average per angler | 542.96 | 70.14 | - | 1,033.94 | - | 1.51 | 479.34 |  |  |

Major Purchases and Investments Attributable to Recreational Fishing

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish equipment | 68,813 | 4,469 | - | 33,147 | - | 3,168 | 109,597 | 125,122 | 87.6 |
| Boating equipment | 111,722 | - | - | 55,861 | - | - | 167,583 | 391,028 | 42.9 |
| Camping equipment | 17,473 | - | - | 52,420 | - | - | 69,894 | 69,894 | 100.0 |
| Vehicles | 427,737 | - | - | 213,868 | - | - | 641,605 | 1,497,078 | 42.9 |
| Land-Buildings | 2,681 | - | - | - | - | - | 2,681 | 2,681 | 100.0 |
| Other investments | 14,506 | 8,100 | - | 37,443 | - | - | 60,049 | 60,049 | 100.0 |
| Total investments | 642,933 | 12,569 | - | 392,740 | - | 3,168 | 1,051,409 | 2,145,852 | 49.0 |
| average per angler | 140.50 | 56.36 | - | 306.11 | - | 1.51 | 131.59 |  |  |

## FIGURE 11

MAJOR PURCHASES ALLOCATED TO GREAT LAKES FISHING ACTIVITIES BY NONRESIDENT CANADIAN ANGLERS


TABLE 12
Major Purchases and Investments Allocated to the Great Lakes Fishery Nonresident Non-Canadian Anglers Who Fished on the Great Lakes

Major Purchases and Investments

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish equipment | 39,918 | 233,356 | 80,090 | 197,160 | 127,111 | - | 677,635 | 775,147 | 87.4 |
| Boating equipment | 62,403 | 94,501 | 1,854,322 | 3,524,544 | 129,102 | 25,141 | 5,690,013 | 5,746,150 | 99.0 |
| Camping equipment | 4,181 | 2,065 | - | 13,244 | 556 | - | 20,045 | 41,671 | 48.1 |
| Vehicles | - | - | - | 170,323 | - | - | 170,323 | 170,323 | 100.0 |
| Land-Buildings | - | 1,048,426 | 20,057 | 12,734,931 | 501,197 | - | 14,304,611 | 14,473,362 | 98.8 |
| Other investments | 104,500 | 10,569 | 4,013 | 231,656 | 63,240 | - | 413,978 | 435,990 | 95.0 |
| Total investments | 211,002 | 1,388,916 | 1,958,483 | 16,871,858 | 821,206 | 25,141 | 21,276,605 | 21,642,642 | 98.3 |
| average per angler | 36.05 | 44.71 | 98.57 | 292.58 | 79.08 | 4.18 | 170.89 |  |  |

Major Purchases and Investments Attributable to Recreational Fishing

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish equipment | 39,918 | 233,356 | 80,090 | 197,160 | 127,111 | - - | 677,635 | 775,147 | 87.4 |
| Boating equipment | 62,272 | 84,967 | 1,413,032 | 3,038,934 | 102,161 | 24,004 | 4,725,370 | 4,770,315 | 99.1 |
| Camping equipment | 3,345 | 2,065 | - | 9,478 | 556 | - | 15,443 | 31,866 | 48.5 |
| Vehicles | - | - | - | 85,161 | - | - | 85,161 | 85,161 | 100.0 |
| Land-Buildings | - | 747,778 | 20,057 | 8,584,369 | 327,146 | - | 9,679,351 | 9,801,335 | 98.8 |
| Other investments | 54,186 | 10,569 | 4,013 | 209,690 | 59,942 | - | 338,400 | 357,058 | 94.8 |
| Total investments | 159,721 | 1,078,734 | 1,517,192 | 12,124,792 | 616,917 | 24,004 | 15,521,360 | 15,820,883 | 98.1 |
| average per angler | 27.29 | 34.73 | 76.36 | 210.26 | 59.40 | 3.99 | 124.66 |  |  |

## FIGURE 12

MAJOR PURCHASES ALLOCATED TO GREAT LAKES FISHING ACTIVITIES BY NONRESIDENT NON-CANADIAN ANGLERS


TABLE 13
Major Purchases and Investments Allocated to the Great Lakes Fishery All Anglers Who Fished on the Great Lakes

Major Purchases and Investments

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish equipment | 6,418,516 | 2,805,611 | 956,409 | 8,356,223 | 668,200 | 815,490 | 20,020,449 | 33,166,728 | 60.4 |
| Boating equipment | 52,677,250 | 24,738,008 | 5,173,930 | 61,920,021 | 5,325,615 | 4,373,652 | 154,208,476 | 209,624,707 | 73.6 |
| Camping equipment | 4,738,754 | 6,263,285 | 368,469 | 9,398,317 | 13,795,024 | 213,425 | 34,777,274 | 48,970,422 | 71.0 |
| Vehicles | 16,283,433 | 11,564,616 | 233,548 | 90,432,523 | 4,963,079 | 10,733,842 | 134,211,041 | 238,192,306 | 56.3 |
| Land-Buildings | 4,284,405 | 2,514,015 | 189,703 | 29,306,624 | 517,851 | 1,150,964 | 37,963,562 | 57,447,044 | 66.1 |
| Other investments | 2,303,350 | 444,394 | 381,762 | 4,488,048 | 784,079 | 343,572 | 8,745,206 | 15,705,216 | 55.7 |
| Total investments | 86,705,707 | 48,329,930 | 7,303,821 | 203,901,756 | 26,053,849 | 17,630,947 | 389,926,009 | 603,106,423 | 64.7 |
| average per angler | 780.68 | 483.88 | 182.79 | 931.88 | 953.24 | 696.88 | 831.17 |  |  |

Major Purchases and Investments Attributable to Recreational Fishing

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fish equipment | 6,418,516 | 2,805,611 | 956,409 | 8,356,223 | 668,200 | 815,490 | 20,020,449 | 33,166,728 | 60.4 |
| Boating equipment | 34,112,350 | 19,084,237 | 4,442,957 | 36,128,528 | 5,280,450 | 3,374,062 | 102,422,584 | 145,509,838 | 70.4 |
| Camping equipment | 2,473,200 | 3,061,438 | 137,670 | 6,373,669 | 9,632,572 | 75,041 | 21,753,590 | 30,850,988 | 70.5 |
| Vehicles | 2,685,619 | 3,821,607 | 114,368 | 18,398,721 | 2,496,044 | 2,438,255 | 29,954,614 | 54,694,679 | 54.8 |
| Land-Buildings | 2,193,505 | 1,512,445 | 159,646 | 15,285,882 | 343,801 | 675,515 | 20,170,794 | 29,436,367 | 68.5 |
| Other investments | 1,921,970 | 388,163 | 345,667 | 3,570,297 | 685,435 | 185,238 | 7,096,770 | 12,594,511 | 56.3 |
| Total investments | 49,805,160 | 30,673,500 | 6,156,717 | 88,113,321 | 19,106,503 | 7,563,601 | 201,418,801 | 306,253,111 | 65.8 |
| average per angler | 448.43 | 307.11 | 154.08 | 402.70 | 699.05 | 298.96 | 429.35 |  |  |

## FIGURE 13

MAJOR PURCHASES ALLOCATED TO GREAT LAKES FISHING ACTIVITIES BY ALL ANGLERS


## TABLE 14

Direct Expenditures Allocated for Fishing in the Great Lakes Fishery
Resident Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Packages | 880,978 | 1,193,700 | 243,795 | 3,384,408 | 240,374 | 609,002 | 6,552,257 | 11,407,692 | 57.4 |
| Accommodation | 1,870,578 | 1,673,536 | 610,268 | 5,801,806 | 364,652 | 362,245 | 10,683,084 | 19,229,391 | 55.6 |
| Campsite fees | 1,622,681 | 2,224,850 | 231,906 | 3,289,701 | 606,058 | 84,730 | 8,059,926 | 12,825,023 | 62.8 |
| Food | 7,073,182 | 4,813,715 | 1,174,775 | 13,862,972 | 1,147,399 | 787,538 | 28,859,581 | 46,742,178 | 61.7 |
| Travel | 7,819,387 | 4,659,782 | 1,429,016 | 15,334,890 | 1,780,448 | 675,783 | 31,699,307 | 53,900,419 | 58.8 |
| Household boat costs | 5,393,882 | 5,828,131 | 1,933,552 | 15,120,251 | 738,555 | 1,242,104 | 30,256,475 | 41,101,650 | 73.6 |
| Boat rentals | 951,430 | 1,009,909 | 123,918 | 1,179,739 | 43,773 | 171,326 | 3,480,094 | 7,521,332 | 46.3 |
| Supplies | 3,923,177 | 1,917,623 | 948,186 | 7,537,433 | 534,521 | 673,881 | 15,534,821 | 25,073,252 | 62.0 |
| Guides | 190,319 | 111,746 | 65,022 | 33,714 | - | 195,363 | 596,163 | 738,006 | 80.8 |
| Licence fees | 1,103,276 | 918,494 | 303,339 | 2,354,861 | 268,273 | 205,157 | 5,153,401 | 7,361,564 | 70.0 |
| Access fees | 235,902 | 101,405 | 35,803 | 244,642 | 9,427 | 59,683 | 686,862 | 1,293,840 | 53.1 |
| Other expenses | 99,604 | 1,327 | - | 30,900 | - | 1,030 | 132,861 | 386,063 | 34.4 |
| Direct expenses | 31,164,394 | 24,454,220 | 7,099,578 | 68,175,317 | 5,733,481 | 5,067,841 | 141,694,831 | 227,580,411 | 62.3 |
| average per angler | 309.67 | 356.52 | 358.91 | 426.47 | 347.91 | 294.93 | 420.92 |  |  |
| average per angler-day | 24.57 | 45.00 | 29.20 | 32.87 | 41.74 | 36.09 | 32.16 |  |  |

## FIGURE 14

DIRECT EXPENDITURES ALLOCATED TO RECREATIONAL FISHING IN THE GREAT LAKES AREAS BY RESIDENT ANGLERS


## FIGURE 15

AVERAGE AMOUNT SPENT BY RESIDENT ANGLERS IN THE GREAT LAKES AREAS


## TABLE 15

Direct Expenditures Allocated for Fishing in the Great Lakes Fishery
Nonresident Canadian Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Packages | 169,139 | - | - | 15,801 | - | 4,793 | 189,732 | 209,444 | 90.6 |
| Accommodation | 280,802 | 35,751 | 3,431 | 82,749 | - | 52,262 | 454,995 | 475,105 | 95.8 |
| Campsite fees | 41,716 | - | 221 | 7,661 | - | 147,261 | 196,858 | 262,218 | 75.1 |
| Food | 301,152 | 17,876 | 12,743 | 300,234 | 7,719 | 275,361 | 915,085 | 1,044,468 | 87.6 |
| Travel | 231,957 | 22,344 | 12,743 | 234,329 | 3,860 | 132,398 | 637,631 | 729,429 | 87.4 |
| Household boat costs | 52,346 | - | 3,063 | 41,904 | - | 62,174 | 159,487 | 196,457 | 81.2 |
| Boat rentals | 234,864 | - | - | 14,168 | - | 11,880 | 260,912 | 260,912 | 100.0 |
| Supplies | 93,550 | 11,172 | 1,078 | 54,131 | 1,930 | 71,202 | 233,063 | 256,663 | 90.8 |
| Guides | 40,293 | - | - | - | - | - | 40,293 | 40,293 | 100.0 |
| Licence fees | 86,779 | 1,162 | 843 | 23,529 | 9,644 | 36,817 | 158,775 | 170,040 | 93.4 |
| Access fees | 1,777 | - | - | - | - | 1,584 | 3,361 | 3,361 | 100.0 |
| Other expenses | - | - | - | - | - | 3,055 | 3,055 | 3,055 | 100.0 |
| Direct expenses | 1,534,376 | 88,305 | 34,122 | 774,505 | 23,153 | 798,787 | 3,253,248 | 3,651,446 | 89.1 |
| average per angler | 335.31 | 395.99 | 110.43 | 603.67 | 49.58 | 380.19 | 407.16 |  |  |
| average per angler-day | 95.92 | 56.46 | 73.67 | 99.65 | 14.96 | 49.44 | 74.79 |  |  |

## FIGURE 16

DIRECT EXPENDITURES ALLOCATED TO RECREATIONAL FISHING IN THE GREAT LAKES AREAS BY NONRESIDENT CANADIAN ANGLERS


FIGURE 17
AVERAGE AMOUNT SPENT BY NONRESIDENT CANADIAN ANGLERS IN THE GREAT LAKES AREAS


TABLE 16
Direct Expenditures Allocated for Fishing in the Great Lakes Fishery
Nonresident Non-Canadian Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Packages | 490,565 | 1,090,341 | 447,239 | 4,180,958 | 1,070,149 | 63,041 | 7,342,295 | 9,384,298 | 78.2 |
| Accommodation | 861,824 | 1,737,666 | 1,566,702 | 9,417,621 | 1,038,085 | 1,229,732 | 15,851,630 | 17,365,465 | 91.3 |
| Campsite fees | 36,031 | 67,256 | 382,476 | 1,602,281 | 255,670 | 41,145 | 2,384,859 | 2,609,737 | 91.4 |
| Food | 707,777 | 2,528,504 | 2,371,912 | 9,567,050 | 1,185,610 | 614,521 | 16,975,373 | 18,220,505 | 93.2 |
| Travel | 228,653 | 1,544,840 | 1,503,653 | 4,331,603 | 856,327 | 284,429 | 8,749,505 | 9,626,574 | 90.9 |
| Household boat costs | 117,969 | 662,484 | 987,274 | 2,185,050 | 491,991 | 110,967 | 4,555,733 | 4,860,741 | 93.7 |
| Boat rentals | 128,320 | 973,849 | 73,934 | 1,015,645 | 19,395 | 176,413 | 2,387,555 | 2,517,907 | 94.8 |
| Supplies | 160,505 | 791,879 | 833,335 | 1,647,464 | 332,469 | 199,571 | 3,965,224 | 4,282,150 | 92.6 |
| Guides | 109,283 | 523,144 | 367,254 | 962,873 | 124,476 | 172,719 | 2,259,749 | 2,500,829 | 90.4 |
| Licence fees | 148,021 | 872,532 | 634,704 | 1,798,416 | 284,354 | 178,343 | 3,916,370 | 4,191,082 | 93.4 |
| Access fees | 9,474 | 11,228 | 39,051 | 39,762 | 42,343 | 5,408 | 147,265 | 160,545 | 91.7 |
| Other expenses | 96 | 36,745 | 7,593 | 99,809 | 7,468 | - | 151,709 | 179,619 | 84.5 |
| Direct expenses | 2,998,518 | 10,840,468 | 9,215,126 | 36,848,531 | 5,708,337 | 3,076,289 | 68,687,268 | 75,899,451 | 90.5 |
| average per angler | 512.30 | 348.97 | 463.82 | 639.00 | 549.67 | 511.35 | 551.68 |  |  |
| average per angler-day | 121.21 | 62.29 | 53.61 | 88.67 | 89.50 | 97.50 | 77.91 |  |  |

FIGURE 18
DIRECT EXPENDITURES ALLOCATED TO RECREATIONAL FISHING IN THE GREAT LAKES AREAS BY NONRESIDENT NON-CANADIAN ANGLERS


FIGURE 19
AVERAGE AMOUNT SPENT BY NONRESIDENT NON-CANADIAN ANGLERS IN THE GREAT LAKES AREAS


TABLE 17
Direct Expenditures Allocated for Fishing in the Great Lakes Fishery
All Anglers Who Fished on the Great Lakes

|  | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence River | Amount Spent in Great Lakes | Amount Spent in Ontario | Percent in Great Lakes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Packages | 1,540,682 | 2,284,042 | 691,034 | 7,581,168 | 1,310,523 | 676,836 | 14,084,284 | 21,001,435 | 67.1 |
| Accommodation | 3,013,204 | 3,446,953 | 2,180,400 | 15,302,176 | 1,402,736 | 1,644,239 | 26,989,709 | 37,069,962 | 72.8 |
| Campsite fees | 1,700,428 | 2,292,107 | 614,603 | 4,899,643 | 861,728 | 273,135 | 10,641,643 | 15,696,978 | 67.8 |
| Food | 8,082,111 | 7,360,095 | 3,559,430 | 23,730,255 | 2,340,729 | 1,677,420 | 46,750,039 | 66,007,151 | 70.8 |
| Travel | 8,279,998 | 6,226,967 | 2,945,412 | 19,900,822 | 2,640,635 | 1,092,609 | 41,086,442 | 64,256,421 | 63.9 |
| Household boat costs | 5,564,197 | 6,490,615 | 2,923,889 | 17,347,204 | 1,230,546 | 1,415,246 | 34,971,696 | 46,158,848 | 75.8 |
| Boat rentals | 1,314,614 | 1,983,758 | 197,852 | 2,209,551 | 63,168 | 359,619 | 6,128,561 | 10,300,151 | 59.5 |
| Supplies | 4,177,232 | 2,720,675 | 1,782,600 | 9,239,027 | 868,920 | 944,654 | 19,733,108 | 29,612,065 | 66.6 |
| Guides | 339,895 | 634,890 | 432,276 | 996,587 | 124,476 | 368,082 | 2,896,205 | 3,279,128 | 88.3 |
| Licence fees | 1,338,076 | 1,792,189 | 938,886 | 4,176,806 | 562,272 | 420,317 | 9,228,546 | 11,722,686 | 78.7 |
| Access fees | 247,154 | 112,633 | 74,853 | 284,404 | 51,770 | 66,675 | 837,489 | 1,457,746 | 57.5 |
| Other expenses | 99,699 | 38,072 | 7,593 | 130,709 | 7,468 | 4,085 | 287,626 | 568,737 | 50.6 |
| Direct expenses | 35,697,289 | 35,382,993 | 16,348,826 | 105,798,353 | 11,464,970 | 8,942,916 | 213,635,347 | 307,131,307 | 69.6 |
| average per angler | 321.41 | 354.26 | 409.15 | 483.52 | 419.47 | 353.47 | 455.39 |  |  |
| average per angler-day | 27.27 | 49.21 | 39.35 | 42.37 | 56.56 | 47.54 | 40.07 |  |  |

FIGURE 20
DIRECT EXPENDITURES ALLOCATED TO RECREATIONAL FISHING IN THE GREAT LAKES AREAS BY ALL ANGLERS


FIGURE 21
AVERAGE AMOUNT SPENT BY ALL ANGLERS IN THE GREAT LAKES AREAS


## Appendix 1

## GREAT LAKES AREAS MAP



Appendix 2

## DEFINITIONS

## Definitions

Great Lakes Angler

Origin

Day Fished
an angler who fished at least one day on any of the Ontario waters of the Great Lakes/St. Lawrence River or to an inland distance of 20 kms on any rivers and streams terminating in the Great Lakes
resident is an angler who resided in the province of Ontario and a nonresident is an angler who visited Ontario: a Canadian (from another province/territory) or a non-Canadian
a "day of fishing" is defined as all or part of any day on which recreational fishing activity occurred

Total Investment Expenses

Attributable Investments

Direct Expenditures

Equipment/Supplies
these are investment expenditures for durable goods (boats, motors, campers, fishing equipment, special vehicle, etc.), which have been allocated to the Great Lakes based on the time the angler spent on the Great Lakes in 2000 as a percent of all days fished in the province
the amount of the investment expenditures for durable goods which the angler identified as being wholly attributable to recreational fishing activity (as a percentage of the total) and which have been allocated to the Great Lakes based on the time the angler spent on the Great Lakes in 2000 as a percent of all days fished in the province
these are expenditures for goods and services (food, camping, accommodation, transportation, supplies, etc.) incurred while on fishing trips or excursions which have been allocated to the Great Lakes on the prorated basis described above
there is a distinction between these two categories insofar as fishing equipment is defined to be expenditures on such durable goods as fishing rods, reels, depth finders, etc. and fishing supplies are items purchased in the course of fishing activity such as bait, lures, line, etc.

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Appendix 3

# ESTIMATES OF STATISTICAL RELIABILITY FOR KEY VARIABLES 

## 1

Estimates of Statistical Reliability of Selected Variables
Expressed as Coefficients of Variation ${ }^{1}$
All Great Lakes Anglers, 2000

| Characteristics | Lake Ontario | Lake Erie | Lake St. Clair | Lake Huron | Lake Superior | St. Lawrence <br> River | Great Lakes |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Sample size | 389 | 429 | 229 | 842 | 126 | 108 | 1,912 |
| Days fished | $10.5 \%$ | $5.9 \%$ | $8.2 \%$ | $5.4 \%$ | $9.4 \%$ | $13.1 \%$ | $3.5 \%$ |
| Total fish caught | $20.7 \%$ | $11.9 \%$ | $10.5 \%$ | $7.2 \%$ | $18.4 \%$ | $23.6 \%$ | $5.8 \%$ |
| Total fish kept | $14.0 \%$ | $12.8 \%$ | $13.8 \%$ | $9.9 \%$ | $39.6 \%$ | $30.6 \%$ | $6.4 \%$ |
| Direct expenses | $7.1 \%$ | $6.8 \%$ | $8.9 \%$ | $4.5 \%$ | $15.4 \%$ | $11.6 \%$ | $3.0 \%$ |
| Total investments | $26.1 \%$ | $24.8 \%$ | $30.0 \%$ | $15.1 \%$ | $32.2 \%$ | $36.4 \%$ | $10.7 \%$ |
| Total attributable investments | $26.5 \%$ | $34.1 \%$ | $28.9 \%$ | $16.8 \%$ | $37.8 \%$ | $36.1 \%$ | $11.7 \%$ |

1 The coefficient of variation of the mean is used as a crude measure of reliability because it is not possible to calculate exact variability in the data. It is calculated as the standard error of the mean divided by the mean multiplied by 100.
The table below can be used as a guide to the use of estimates based on the coefficient of variation.

CV less than 16.5\%:
CV greater than $16.5 \%$ and less than $33.5 \%$ :
CV greater than $33.5 \%$ :

- estimates can be used without condition.
- estimates should be used with caution.
- estimates should be used with extreme caution.


## I

Appendix 4

## RESIDENT AND NONRESIDENT QUESTIONNAIRES

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# 2000 SURVEY OF RECREATIONAL FISHING IN CANADA 

## RESIDENTS OF ONTARIO

(Le présent questionnaire est également disponible en français)
(QUESTIONS? $\rightarrow 1$ (800) 298-9935 TOLL FREE)

## NOTE TO THE RESPONDENT

In order to complete this document as easily as possible, the following instructions may be of assistance:

- the questions are to be answered only by the person to whom the questionnaire was addressed.
- this survey covers only fishing activity between January 1 and December 31, 2000.
- the term "household members" refers only to individuals living in your residence.

THANK YOU IN ADVANCE FOR YOUR COOPERATION AND ASSISTANCE.

## CONFIDENTIAL WHEN COMPLETED

## YOUR PERSONAL RECREATIONAL FISHING ACTIVITIES

1a) Did you personally fish for recreation in Ontario in 2000?
$\mathrm{Yes}_{1} \mathrm{O} \rightarrow$ please continue $\quad \mathrm{No}_{2} \mathrm{O} \rightarrow$ go to question 15
b) How many days in total did you spend fishing for recreation in Ontario in 2000? (A "day" is all or any part of a day fished)
$\qquad$ days fished

2a) Of the above days, how many were spent fishing through the ice in Ontario in 2000?
None $\mathrm{O} \rightarrow$ go to question 3 or $\qquad$ days fished
b) Do you own an ice-hut?

Yes ${ }_{1} \mathrm{O}$
$\mathrm{No}_{2} \mathrm{O}$
c) Did you rent an ice-hut in 2000? $\quad \mathrm{Yes}_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}$
d) Do you only fish through the ice when you can use an ice-hut? Yes ${ }_{1} \mathrm{O} \quad$ No ${ }_{2} \mathrm{O}$
3. Excluding any time spent ice-fishing, what percentage of time did you spend fishing:
from shore or from a dock $\qquad$ \% from a boat or a canoe $\qquad$ \%
4. For each waterbody on which you fished in Ontario in 2000, please provide the name of the lake, river or stream, the nearest town or village, the number of days fished on open water as well as through the ice and the number of fish you caught and kept. If you fished in a provincial park, please name the park instead of the nearest town/village. Even if you did not catch any fish, the information on where you fished and how often is important. If you fished more than six water bodies, please record your information on separate pages and attach them.

Please include only your personal fishing activities from January to December 2000.

| SITE 1 Name of lake, river or stream <br> Nearest town/village/park |  |  |  |  |  | Number of days fished <br> Days fished through ice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Number of fish Caught Kept |  |  | Number of fish Caught Kept |  | Lake sturgeon | Number of fish Caught Kept |  |
|  |  |  |  |  |  |  |  |  |
| Walleye (pickerel) |  |  | Rainbow trout |  |  |  |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish |  |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass |  |  | Coho salmon |  |  | Other |  |  |



4. continued

| SITE 4 Name of lake, river or stream <br> Nearest town/village/park |  |  |  |  |  | Number of days fished <br> Days fished through ice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Number of fish |  |  | Number of fish Caught Kept |  | Lake sturgeon | Number of fish Caught Kept |  |
|  | Caught | Kept |  |  |  |  |  |  |
| Walleye (pickerel) |  |  | Rainbow trout |  |  |  |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish |  |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass |  |  | Coho salmon |  |  | Other |  |  |


| SITE 5 Name of lake, river or stream <br> Nearest town/village/park $\qquad$ |  |  |  |  |  | Number of days fished <br> Days fished through ice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| Walleye (pickerel) | Number of fish Caught Kept |  |  | Number of fish Caught Kept |  |  | Number | of fish |
|  |  |  |  |  |  |  | Caught | Kept |
|  |  |  | Rainbow trout |  |  | Lake sturgeon |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish |  |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass |  |  | Coho salmon |  |  | Other |  |  |

SITE 6 Name of lake, river or stream $\qquad$
Nearest town/village/park

|  | Number of fish |  | Number of fish |  |  |  | Number of fish |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Caught | Kept |  | Caught | Kept |  | Caught | Kept |
| Walleye (pickerel) |  |  | Rainbow trout |  |  | Lake sturgeon |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish |  |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass |  |  | Coho salmon |  |  | Other |  |  |

5. What do you estimate was the total weight of the fish you kept in Ontario in 2000 and what percentage of it was eaten by you or members of your household?
$\qquad$ pounds or $\qquad$ kilograms
percentage eaten $\qquad$ \%

6a) Did you release any fish you caught in Ontario in 2000 ?

$$
\mathrm{Yes}_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 7
$$

b) If yes, was it because it was: mandatory ${ }_{1} \mathrm{O} \quad$ voluntary ${ }_{2} \mathrm{O} \quad$ both ${ }_{3} \mathrm{O}$
7. On average, how many hours per day did you fish for recreation in Ontario in 2000? $\qquad$ hours per day
8. Overall, how would you rate your recreational fishing experience in Ontario in 2000?

$$
\text { Excellent }{ }_{1} \mathrm{O} \quad \text { Very Good }{ }_{2} \mathrm{O} \quad \mathrm{Good}_{3} \mathrm{O} \quad \text { Fair }_{4} \mathrm{O} \quad \text { Poor }_{5} \mathrm{O}
$$

9. Please list the top three species you fished for, in the order of angling preference (see list in Question 4):

| Most preferred species | Second preferred species | Third preferred species |
| :--- | :--- | :--- |

10. How often did you use the following sources of information when selecting the places you fished in Ontario in 2000?

Please rate each information source on a scale of 1 (did not use), 2 (sometimes), 3 (often).

| Information Source | Rating | Information Source | Rating |
| :--- | :--- | :--- | :--- |
| None O go to question 11 |  | Friends / Family / other anglers | - |
| Internet / web sites | - | Television / radio announcements | - |
| Magazines / newspapers | - | Television fishing shows | - |
| Bait and tackle shops | - | Licence issuer | - |
| Outdoor / sportsman shows | Natural Resources office / field staff | - |  |
| Travel agent / tourist operator |  | Annual regulation summary | - |
| Clubs / associations |  | Other |  |

11a) Did you participate in the Ontario Family Fishing Weekend (July 7-9, 2000)?

$$
\mathrm{Yes}_{1} \mathrm{O} \rightarrow \text { go to question } 12 \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { please continue }
$$

b) If no, were you aware of this event? $\quad$ Yes ${ }_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}$

12a) Prior to 2000 , did you participate in the Ontario Family Fishing Weekend at least once?

$$
\mathrm{Yes}_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}
$$

b) If you participated at least once in the Ontario Family Fishing Weekend, was your participation a factor in the purchase of an Ontario fishing licence for any member of your household?

$$
\mathrm{Yes}_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O} \quad \text { Never participated }{ }_{3} \mathrm{O}
$$

13a) Did you take a kid (youth under 18) fishing in Ontario in 2000 ?

$$
\text { Yes }{ }_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 14
$$

b) If yes, did you participate in either of the following:
i) "Take a Kid Fishing Week" (August 2000)?
ii) The Ontario Federation of Anglers and Hunters'
"Tackle Share Program", which makes tackle available for kids?
14. Did you fish in a competitive fishing event in Ontario in 2000?
15. How many years have you fished for recreation in Ontario?
16. As an angler, do you consider yourself to be:
an expert .......... O experienced .......... O O average .......... O O beginner .......... O
17. Were you a member of an organized angling group or association in 2000 ?

Yes ${ }_{1} O$
$\mathrm{No}_{2} \mathrm{O}$
18. How much personal time did you give to volunteer work in support of Ontario's recreational fishery in 2000 (e.g., habitat clean-up, fish passage construction)? A day is all or any part of a day worked.

Please enter $\underline{\mathbf{0}}$ (zero), if you did not do volunteer work in recreational fisheries.
Number of days of volunteer work $\qquad$
Please list the names of the organizations that you assisted in support of Ontario's recreational fishery in 2000. (e.g., Ontario Federation of Anglers and Hunters, local fish and game club, etc.)

19a) Many areas of the province do not have a limit on the number of panfish (i.e. perch, rock bass, crappie, catfish, sunfish) that can be harvested. Do you feel that a harvest limit should be established?

$$
\text { Yes }{ }_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } \mathbf{2 0}
$$

b) If yes, which of the following species should have a limit?

| Yellow perch | Yes ${ }_{1} \mathrm{O}$ | $\mathrm{No}_{2} \mathrm{O}$ |
| :--- | :--- | :--- |
| Rock bass | Yes ${ }_{1} \mathrm{O}$ | $\mathrm{No}_{2} \mathrm{O}$ |
| Crappie | Yes ${ }_{1} \mathrm{O}$ | $\mathrm{No}_{2} \mathrm{O}$ |

Catfish
Sunfish
Other panfish
Yes ${ }_{1} O$
$Y e s, O$
$Y e s, O$
$\mathrm{No}_{2} \mathrm{O}$
$\mathrm{No}_{2} \mathrm{O}$
$\mathrm{No}_{2} \mathrm{O}$
20. Did you purchase an Ontario hunting licence in 2000?

$$
\mathrm{Yes}{ }_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}
$$

21a) Did you have access to a computer with Internet capabilities in 2000 ?
Yes ${ }_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}$
b) Would you consider purchasing fishing licences via the Internet, if you had this option?
$\mathrm{Yes}{ }_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}$

22a) Did you or any member of your household make any major purchases or investments in Ontario in 2000 related in whole or in part to recreational fishing? (e.g., fishing rods, boats, motors, $4 \times 4$ 's, snowmobiles, cabins, camping gear, trailers, ice fishing gear, etc.)

Please Note: Purchases of fishing supplies (lures, line, tackle, etc.) are covered in question 24.

$$
\mathrm{Yes}{ }_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 23
$$

b) For each investment category, please indicate the amount of money spent in Ontario in 2000 by you and members of your household and please estimate the percentage of the total amount you consider was directly attributable to recreational fishing activities during the year.

| Investment Category | Total Amount Spent on <br> Purchases in Ontario | \% of Total Attributable to <br> Recreational Fishing |  |
| :--- | :---: | :---: | :---: |
| Fishing Equipment <br> (rods, reels, fish finders, etc.) <br> Boating Equipment <br> (boats, motors, trailers, etc.) <br> Camping Equipment <br> (tents, camper trailers, etc.) <br> Special Vehicles <br> (4x4's, ATV's, camper trucks, snowmobiles, etc.) <br> Land-Buildings <br> (cabins, cottages, land, etc.) <br> Other <br> (special clothing, waders, ice-huts, etc.) | $\$$ | .00 | $100 \%$ |

c) Of the above investments, how much was spent solely for ice fishing? $\qquad$ .00 (include ice-huts, ice augers, floater coats and suits, ice fishing rods, etc.)

## 23. PACKAGES PURCHASED IN 2000

The following question refers only to packages purchased in Ontario from a lodge or outfitter (or their agent) which include a complete range of services such as lodging, food, transportation, etc.

For self-organized trips, please include expenditures in question 24
a) Did you or any member of your household purchase any such packages to fish in Ontario in 2000?

$$
\text { Yes }{ }_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 24
$$

b) If yes, what was the total cost to you and your household per package, the site number (from question 4), and the mode of transportation used to reach the actual site? Also, please indicate if this package deal was for ice fishing. If the package was purchased by a group, please include only your household's share.

| Package | Cost | Site Number <br> (from question 4) | Mode of transportation <br> used to reach actual site | Ice fishing package |
| :--- | ---: | ---: | :--- | :--- |
| $\# 1$ | $\$$ | .00 |  |  |
| $\# 2$ | $\$$ | .00 |  |  |
| $\# 3$ | $\$$ | .00 |  |  |
| $\# 4$ | $\$ \ldots .00$ |  |  | Yes O No O |
|  |  |  | Yes O | No O |

24) EXCLUDING expenditures on major purchases and package deals, please indicate the amount of money you and other members of your household spent on the following to fish for recreation in Ontario in 2000.

## Expenditure Category

Amount

| Accommodation (hotels, motels, etc.) | \$ | . 00 |
| :---: | :---: | :---: |
| Campsite fees (private, provincial, etc.) | \$ | . 00 |
| Food (groceries, restaurant meals, alcoholic beverages) | \$ | . 00 |
| Travel costs within Ontario for recreational fishing - vehicle expenses (including gas, repairs), rentals, air fares, etc. | \$ | . 00 |
| Household owned boat costs (gas, repairs, launch/ramp fees, moorage, insurance, etc.) | \$ | . 00 |
| Rentals for fishing (boats, gear, snowmobiles, ice-huts, etc.) | \$ | . 00 |
| Fishing supplies (bait, line, tackle, etc.) | \$ |  |
| Guide services | \$ | . 00 |
| Fishing licence fees (permits, tags, etc.) | \$ | . 00 |
| Access fees (park fees, etc.) | \$ | . 00 |
| Other (please specify) | \$ | . 00 |

b) Of the above expenditures, approximately how much was spent on ice fishing?
\$ $\qquad$ .00

## If you did not personally fish for recreation in Ontario in 2000, please go to question 26

25a) Please consider the number of days you fished and what you paid to fish in Ontario during 2000, the amount of money you spent for similar recreational activities, and your income in 2000. Would you still have fished for recreation in Ontario had your out of pocket costs PER FISHING DAY been higher due to increased costs for gasoline, accommodation, supplies, etc.?

$$
\mathrm{Yes}{ }_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 26
$$

b) What is the maximum additional amount of money you would pay PER FISHING DAY before it would have been too expensive to fish at all in Ontario in 2000?

| Less than $\$ 10.00$ per day ${ }_{1} \mathrm{O}$ (please specify) \$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$10.00/day | ${ }_{2} \mathrm{O}$ | \$20.00 / day | ${ }_{3} \mathrm{O}$ | \$30.00/day ${ }_{4} \mathrm{O}$ | \$40.00/day ${ }_{5} \mathrm{O}$ |
| \$50.00 / day | ${ }_{6} \mathrm{O}$ | \$60.00 / day | ${ }_{7} \mathrm{O}$ | \$70.00/day ${ }_{8} \mathrm{O}$ | \$80.00/day ${ }_{9} \mathrm{O}$ |
| \$90.00 / day | ${ }_{10} \mathrm{O}$ | \$100.00/day | ${ }_{11} \mathrm{O}$ | More than \$100/d | (specify) \$ |

## RECREATIONALBOAT OWNERSHIP AND BOATING ACTIVITIES

26a) How many boats are owned by your household? $\qquad$ boats or None $\mathrm{O} \rightarrow$ go to question 27
b) Please provide the following information for your boats:

| Characteristic | BOAT 1 | BOAT 2 | BOAT 3 | BOAT 4 |
| :---: | :---: | :---: | :---: | :---: |
| Type of boat (canoe, rowboat, sailboat, inboard, outboard, inboard-outboard, etc.) |  |  |  |  |
| Length (in feet) | ft | ft | ft | $\ldots \mathrm{ft}$ |
| Horsepower (if applicable) | $\ldots \mathrm{hp}$ | _hp | _hp | _hp |
| Days used for all recreational purposes in Ontario in 2000 (including fishing) | _ days | _ days | _ days | _ days |
| Days used for recreational fishing in Ontario in 2000 | _ days | _ days | _ days | $\ldots$ days |
| Days used for recreational fishing on the Great Lakes and on the St. Lawrence River in 2000 | _ days | _ days | $\ldots$ days | _days |
| Approximately how old is this boat | __years | $\ldots \ldots$ years | _ years | _ years |

## 

In order for us to analyze the data collected in this survey in a meaningful way, we require some personal information about you and the members of your household. This will allow us to accurately estimate the number of anglers in the province, their use of the resource and the economic benefits generated by recreational fishing in the province of Ontario.

## YOUR ANSWERS WILL REMAIN STRICTLY CONFIDENTIAL

27. In what year were you born?

19 $\qquad$
28. Are you: Male ${ }_{1} \mathrm{O}$ Female ${ }_{2} \mathrm{O}$
29. Which of the following Ontario recreational fishing licences did you personally hold in 2000? For 1-day licences, please indicate how many you purchased.

| Seasonal licence | ${ }_{1} \mathrm{O}$ | 1-day licence ${ }_{3} \mathrm{O}$ |
| :--- | :--- | :--- |
| Conservation licence | ${ }_{2} \mathrm{O}$ | $\rightarrow$ number purchased |

30. Excluding yourself, which of the following Ontario recreational fishing licences did members of your household 18 to 64 years of age hold in 2000? For 1-day licences, please indicate how many were purchased.
household members
Seasonal licence
Conservation licence
1-day licence $\longrightarrow \quad$ number purchased $\qquad$
31. Excluding yourself, how many members of your household in each of the following age groups fished for recreation in Ontario in 2000 and how many days in total did they fish?
household members under 18 years of age

household members 65 years of age and over $\quad$| days fished in total |
| :--- |
| days fished in total |

## THANK YOU FOR YOU COOPERATION

If you have any questions regarding recreational fishing in Ontario, you may call 1-800-667-1940 TOLL-FREE.

# 2000 SURVEY OF RECREATIONAL FISHING IN CANADA <br> <br> NONRESIDENTS OF ONTARIO 

 <br> <br> NONRESIDENTS OF ONTARIO}
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## NOTE TO THE RESPONDENT

In order to complete this document as easily as possible, the following instructions may be of assistance:

- the questions are to be answered only by the person to whom the questionnaire was addressed.
- this survey covers only fishing activity between January 1 and December 31, 2000.
- the term "household members" refers only to individuals living in your residence.


## THANK YOU IN ADVANCE FOR YOUR COOPERATION AND ASSISTANCE.

## CONFIDENTIAL WHEN COMPLETED

## LICENCE INFORMATION:

1. Which of the following Ontario recreational fishing licences did you personally hold in 2000? For 1-day and 7-day licences, please indicate how many you purchased.

| Seasonal licence | ${ }_{1} \mathrm{O}$ |
| :--- | :--- |
| Conservation licence | ${ }_{2} \mathrm{O}$ |
| Spousal licence | ${ }_{3} \mathrm{O}$ |

1-day licence
7-day licence
7-day conservation licence
${ }_{4} \mathrm{O} \rightarrow$ number purchased
${ }_{5} \mathrm{O} \rightarrow$ number purchased
${ }_{6} \mathrm{O} \rightarrow$ number purchased

## YOUR PERSONAL REGREATIONAL FISHING ACTIVITIES

2a) Did you personally fish for recreation in Ontario in 2000?

$$
\mathrm{Yes}_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 15
$$

b) How many days in total did you spend fishing for recreation in Ontario in 2000?
(A "day" is all or any part of a day fished) $\qquad$ days fished
3a) Of the above days, how many were spent fishing through the ice in Ontario in 2000?
None $\mathrm{O} \rightarrow$ go to question 4 or $\qquad$ days fished
b) Do you own an ice hut? $\quad \mathrm{Yes}_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}$
c) Did you rent an ice hut in 2000? $\mathrm{Yes}_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}$
d) Do you only fish through the ice when you can use an ice hut? $\mathrm{Yes}_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}$
4. Excluding any time spent ice-fishing in 2000, what percentage of time did you spend fishing:
$\qquad$ \%
from a boat or a canoe $\qquad$ \%
5. On average, how many hours per day did you fish for recreation in Ontario in 2000? $\qquad$ hours per day
6. For each waterbody on which you fished in Ontario in 2000, please provide the location, the days fished on open water as well as through the ice and the number of fish you caught and kept. If you fished in a provincial park, please name the park instead of the nearest town/village. Even if you did not catch any fish, the information on where you fished and how often is important. If you fished more than six water bodies, please record your information on separate pages and attach them.

Please include only your personal fishing activities from January to December 2000

| SITE 1 Name of lake, <br> river or stream <br> Nearest town/village/park  |  |  |  |  |  | Number of days fished <br> Days fished through ice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Number of fish Caught Kept |  |  | Number of fish Caught Kept |  |  | Number of fish Caught Kept |  |
|  |  |  |  |  |  |  |  |  |
| Walleye (pickerel) |  |  | Rainbow trout |  |  | Lake sturgeon |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish |  |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass |  |  | Coho salmon |  |  | Other |  |  |


| SITE 2 <br> Nearest town/village/park |  |  |  |  |  | Number of days fished <br> Days fished through ice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of fish Caught Kept |  | Number of fish Caught Kept |  |  | Lake sturgeon | Number of fish Caught Kept |  |
|  |  |  |  |  |  |  |  |  |
| Walleye (pickerel) |  |  | Rainbow trout |  |  |  |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish |  |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass |  |  | Coho salmon |  |  | Other |  |  |


6. continued

| SITE 4 Name of lake, river or stream <br> Nearest town/village/park $\qquad$ |  |  |  |  |  | Number of days fished <br> Days fished through ice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| Number of fish |  |  | Number of fish |  |  |  | Number of fish Caught Kept |  |
|  | Caught |  |  | Caught | Kept |  |  |  |
| Walleye (pickerel) |  |  | Rainbow trout |  |  | Lake sturgeon |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish |  |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass | - |  | Coho salmon |  |  | Other |  |  |


| SITE 5 | Name of lake, river or stream |  |  |  |  | Number of days fished <br> Days fished through ice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nearest town/village/park |  |  |  |  |  |  |  |  |
|  | Number of fish |  |  | Number of fish |  |  | Number | of fish |
|  | Caught | Kept |  | Caught | Kept |  | Caught | Kept |
| Walleye (pickerel) |  |  | Rainbow trout |  |  | Lake sturgeon |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish |  |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass |  |  | Coho salmon |  |  | Other |  |  |


| SITE 6 Name of lake, river or stream |  |  |  |  |  | Number of days fished Days fished through ice |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | Number of fish Caught Kept |  |  | Number | of fish |  | Number | of fish |
|  |  |  |  | Caught | Kept |  | Caught | Kept |
| Walleye (pickerel) |  |  | Rainbow trout |  |  | Lake sturgeon |  |  |
| Northern pike |  |  | Brown trout |  |  | Catfish |  |  |
| Perch |  |  | Lake trout |  |  | Crappie |  |  |
| Muskellunge |  |  | Brook trout |  |  | Rock bass |  |  |
| Whitefish |  |  | Splake |  |  | Sunfish | - |  |
| Smallmouth bass |  |  | Chinook salmon |  |  | Smelt |  |  |
| Largemouth bass |  |  | Coho salmon | $\square$ |  | Other |  |  |

7a) Did you release any fish you caught in Ontario in 2000?

$$
\text { Yes }{ }_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 9
$$

b) If yes, was it because it was: mandatory ${ }_{1} \mathrm{O}$ voluntary ${ }_{2} \mathrm{O}$ both ${ }_{3} \mathrm{O}$
8. Including yourself, on average how many anglers were in your fishing parties in 2000? average number of adults (18 and over) $\qquad$ average number of children (under 18) $\qquad$
9. Overall, how would you rate your recreational fishing experience in Ontario in 2000?
Excellent ${ }_{1} \mathrm{O} \quad$ Very Good ${ }_{2} \mathrm{O}$
Good ${ }_{3} \mathrm{O}$
Fair ${ }_{4} \mathrm{O}$
Poor ${ }_{5} \mathrm{O}$
10. Did you fish for recreation outside Ontario in 2000 ?
Yes ${ }_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}$
11. Please list the top three species you fished for, in the order of angling preference (see list in Question 6):

| Most preferred species | Second preferred species | Third preferred species |
| :--- | :--- | :--- |

12. How often did you use the following sources of information when selecting the places you fished in Ontario in 2000?

Please rate each information source on a scale of 1 (never), 2 (sometimes), 3 (often).

| Information Source | Rating | Information Source | Rating |
| :--- | :--- | :--- | :--- |
| None O go to question 14 |  | Friends / Family / other anglers |  |
| Internet / web sites | - | Television / radio announcements | - |
| Magazines / newspapers | - | Television fishing shows | - |
| Bait and tackle shops |  | Licence issuer | - |
| Outdoor / sportsman shows |  | MNR office / field staff | - |
| Travel agent / tourist operator |  | Annual regulation summary | - |
| Clubs / associations |  | Other |  |

13. Did you fish in a competitive fishing event in Ontario in 2000?
14. How many years have you fished for recreation in Ontario?

Yes
${ }_{1} \mathrm{O}$
No ${ }_{2} \mathrm{O}$
15. As an angler, do you consider yourself to be:

$$
\text { an expert .......... } \mathrm{O} \quad \text { experienced .......... }
$$ ${ }_{2} \mathrm{O}$ average $\qquad$ ${ }_{3} \mathrm{O}$ a beginner $\qquad$ ${ }_{4} \mathrm{O}$

16. Did you purchase an Ontario hunting licence in 2000 ?

Yes ${ }_{1} \mathrm{O}$
$\mathrm{No}_{2} \mathrm{O}$
17a) Did you have access to a computer with Internet capabilities in 2000?

$$
\mathrm{Yes}_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}
$$

b) Would you consider purchasing Ontario fishing licences via the internet, if you had this option?

$$
\text { Yes }{ }_{1} \mathrm{O} \quad \mathrm{No}_{2} \mathrm{O}
$$

18a) How many trips did you make to Ontario in 2000 ?
(A trip should be counted each time you crossed the border into the province). $\qquad$ trips
b) How many days in total did you spend in Ontario in 2000 for all reasons? $\qquad$ days
c) On how many of your trips to Ontario in 2000 did you fish? $\qquad$ trips
d) How many were day-trips requiring no accommodation? $\qquad$ day trips
e) For the remaining fishing trips, how many nights were spent in Ontario? $\qquad$ nights
19. If there had been no fishing opportunities in Ontario in 2000, would you have: (please check one only)
stayed a shorter time ${ }_{1} \mathrm{O} \quad$ substituted other activities ${ }_{2} \mathrm{O} \quad$ not come at all ${ }_{3} \mathrm{O}$

## EXPENDITURES ON RECREATIONAL FISHINGIN 2000

Please indicate which currency you will be using to answer the following expenditure questions:
Canadian Dollars ${ }_{1} \mathrm{O}$
U.S. Dollars ${ }_{2} \mathrm{O}$

20a) Did you or any member of your household make any major purchases or investments in Ontario in 2000 related in whole or in part to recreational fishing? (e.g. fishing rods, boats, motors, $4 \times 4$ 's, snowmobiles, cabins, camping gear, trailers, ice fishing gear, etc.)

Please Note: Purchases of fishing supplies (lures, line, tackle, etc.) are covered in question 23.

$$
\mathrm{Yes}_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 22
$$

b) For each investment category, please indicate the amount of money spent in Ontario in 2000 by you and members of your household and please estimate the percentage of the total amount you consider was directly attributable to recreational fishing activities during the year.

| Investment Category | Total Amount Spent on <br> Purchases in Ontario | $\%$ of Total Attributable to <br> Recreational Fishing |
| :--- | :---: | :---: | :---: |
| Fishing Equipment <br> (rods, reels, fish finders, etc.) <br> Boating Equipment <br> (boats, motors, trailers, etc.) <br> Camping Equipment <br> (tents, camper trailers, etc.) <br> Special Vehicles <br> (4x4's, ATV's, camper trucks, snowmobiles etc.) <br> Land-Buildings <br> (cabins, cottages, land, etc.) <br> Other <br> (special clothing, waders, ice-huts, etc.) | $\$ \ldots 000$ | $100 \%$ |

c) Of the above investments, how much was spent solely for ice fishing?
\$ $\qquad$ .00
21. PACKAGES PURCHASED IN 2000

The following question refers only to packages purchased in Ontario from a lodge or outfitter (or their agent) which include a complete range of services such as lodging, food, transportation, etc.

For self-organized trips, please include expenditures in question 23.
a) Did you or any member of your household purchase any such packages to fish in Ontario in 2000?

$$
\mathrm{Yes}_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 23
$$

b) If yes, what was the total cost to you and your household per package, the site number (from question 6), and the mode of transportation used to reach the actual site? Also, please indicate if this package deal was for ice fishing. If the package was purchased by a group, please include only your household's share.

| Package | Cost | Site Number (from question 6) | Mode of transportation used to reach actual site | Ice fishing package |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \# 1 | \$ |  |  | Yes O | No O |
| \# 2 | \$ _ . 00 |  |  | Yes O | No O |
| \# 3 | \$ |  |  | Yes O | No O |
| \# 4 | \$ |  |  | Yes O | No O |

22. EXCLUDING expenditures on major purchases and package deals, please indicate the amount of money you and other members of your household spent on the following to fish for recreation in Ontario in 2000.

| Expenditure Category | Amount |  |
| :---: | :---: | :---: |
| Accommodation (hotels, motels, etc.) | \$ | . 00 |
| Campsite fees (private, provincial, etc.) | \$ | . 00 |
| Food (groceries, restaurant meals, alcoholic beverages) | \$ | . 00 |
| Travel costs within Ontario for recreational fishing <br> - vehicle expenses (including gas, repairs, rentals), air fares, etc. | \$ | . 00 |
| Household owned boat costs (gas, repairs, launch/ramp fees, moorage, insurance, etc.) | \$ | . 00 |
| Boat rentals | \$ | . 00 |
| Fishing supplies (bait, line, tackle, etc.) | \$ | . 00 |
| Guide services | \$ | . 00 |
| Fishing licence fees (permits, tags, etc.) | \$ | . 00 |
| Access fees | \$ | . 00 |
| Other (park fees, tolls, etc.) | \$ | . 00 |

b) Of the above expenditures, approximately how much was spent on ice fishing? $\$$ $\qquad$ .00

If you did not personally fish for recreation in Ontario in 2000, please go to question 24.
23a) Please consider the number of days you fished and what you paid to fish in Ontario during 2000, the amount of money you spent for similar recreational activities, and your income in 2000. Would you still have fished for recreation in Ontario had your out of pocket costs PER FISHING DAY been higher due to increased costs for gasoline, accommodation, supplies, etc?

$$
\mathrm{Yes}_{1} \mathrm{O} \rightarrow \text { please continue } \quad \mathrm{No}_{2} \mathrm{O} \rightarrow \text { go to question } 25
$$

b) What is the maximum additional amount of money you would PAY PER FISHING DAY before it would have been too expensive to fish at all in Ontario in 2000?

Less than $\$ 10.00$ per day ${ }_{1} \mathrm{O}$ (please specify) $\$ \ldots \quad .00$

| $\$ 10.00 /$ day | ${ }_{2} \mathrm{O}$ | $\$ 20.00 /$ day | ${ }_{3} \mathrm{O}$ | $\$ 30.00 /$ day ${ }_{4} \mathrm{O}$ | $\$ 40.00 /$ day $_{5} \mathrm{O}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\$ 50.00 /$ day | ${ }_{6} \mathrm{O}$ | $\$ 60.00 /$ day | ${ }_{7} \mathrm{O}$ | $\$ 70.00 /$ day ${ }_{8} \mathrm{O}$ | $\$ 80.00 /$ day ${ }_{9} \mathrm{O}$ |
| $\$ 90.00 /$ day | ${ }_{10} \mathrm{O}$ | $\$ 100.00 /$ day ${ }_{11} \mathrm{O}$ | More than $\$ 100 /$ day ${ }_{12} \mathrm{O}$ | (specify) $\$ \ldots$ |  |

## INFORMATION ABOUT YOU AND YOUR HOUSEHOLD

In order for us to analyze the data collected in this survey in a meaningful way, we require some personal information about you and the members of your household. This will allow us to accurately estimate the number of anglers in the province, their use of the resource and the economic benefits generated by recreational fishing in the province of Ontario.

YOUR ANSWERS WILL REMAIN STRICTLY CONFIDENTIAL
24. In what year were you born?

19 $\qquad$
25. Are you: Male ${ }_{1} \mathrm{O}$ Female ${ }_{2} \mathrm{O}$
26. Excluding yourself, how many other members of your household 18 years of age and over held any of the following Ontario recreational fishing licences in 2000? For 1 -day and 7 -day licences, please indicate how many were purchased.

| Licence Type |  | Household Members | Number Purchased |
| :--- | :---: | :---: | :---: |
| Seasonal licence | ${ }_{1} \mathrm{O}$ |  |  |
| Conservation licence | ${ }_{2} \mathrm{O}$ |  |  |
| 7-day fishing licence | ${ }_{3} \mathrm{O}$ |  |  |
| 7-day conservation licence | ${ }_{4} \mathrm{O}$ |  |  |
| Spousal licence | ${ }_{5} \mathrm{O}$ |  |  |
| 1-day licence | ${ }_{6} \mathrm{O}$ |  |  |

## THANK YOU

If you have any questions regarding recreational fishing in Ontario, you may call 1-800-387-7011 TOLL FREE.
Please use the next page to enter any comments you may have on recreational fishing in Ontario.

COMMENTS:


SH 334 E19 no. 168 c. 1 Canada. Dept. of Fisheri... 2000 survey of recreational fishing in Canada :...


