

1980 Survey Of Sport Fishing In The Northwest Territories Date of Report: 1993 Author: Canada - Dfo -ottawa/winnepeg Catalogue Number: 11-1-18

## Note to Readers

This document has been prepared by the Surveys Unit, Economic Policy Branch, Department of Fisheries and Oceans, for discussion purposes at the 1984 Canadian Sport Fisheries Conference.

The data contained in this report are the results of the 1980 Survey of Sportfishing in the jurisdiction named. However, the use of the data for interpretation, analysis, comparison, etc. is subject to final approval by my colleagues in the agency responsible. Due to the time constraints under which this draft has been prepared, the responsible agency has not had the opportunity to review the document. As such, I take full responsibility for any errors, omissions or misinterpretations within this report.

Kieth W. Brickley Chief, Surveys Unit Economic Policy Branch

# TABLE OF CONTENTS

<u>P</u>	age
LIST OF FIGURES	ii
LIST OF TABLES	ii
EXECUTI VE SUMMARY	1
I NTRODUCTI ON	4
SURVEY BACKGROUND	4
ANGLER PROFILE	5
Numbers	5
Ori gi ns	6
Motivations	12
Income Profile	12
ANGLER FISHING EFFORT AND HARVEST	17
Fishing Effort	17
Fishing Areas	18
Harvest	22
Preferences	25
Consumption	25
ANGLER EXPENDITURES AND INVESTMENTS	26
Expendi tures	26
Investments	28
Boat Ownership and Use	30
ANGLER COMMENTS	31
SUMMARY	34

# **APPENDICES**

	<u>Pa</u>	aae
A.	Comparison of Results of 1975 and 1980 Surveys	36
В.	Methodology	. 41
C.	1. Resident Questionnaire, 2. Nonresident Questionnaire	45
	LIST <b>OFFIGURES</b>	
1.	Estimated number of anglers by area of residence, 1980	8
7.	Number of Northwest Territories residents fishing elsewhere in Canada and nonresident Canadians fishing in the Northwest Territories, 1980	С
3.	Regional distribution and numbers of United States residents who held Northwest Territories angling licences in 1980	11
4.	Percentage of angler-days expended by anglers in each fishing area of the Northwest Territories in 1980	. 19
	LIST OF TABLES	
1.	Numbers and characteristics of anglers in the Northwest Territories in 1980	5
2.	Resident anglina licence distribution and use in 1980	7
3.	Origin and numbers of nonresident anglers who held Northwest Territories angling licences in 1980	10
۵.	Fishing activity in the Northwest Territories by active anglers who held Northwest Territories angling licences in the previous five years	13
5.	Fishing trip motivation for nonresident anglers in the Northwest Territories, 1980	14
6.	Projected future participation by nonresident anolers in the	14

# LIST OF FIGURES

	<u>!</u>	Page
7.	Nonresident visit alternatives if there had been no fishing opportunities in the Northwest Territories in 1980	15
8.	Nonresident views of their fishing experiences in the Northwest Territories in 1980	15
9.	Type of accommodation used by nonresident anglers in the Northwest Territories in 1980	16
10.	Household income profile of anglers who fished in the Northwest Territories in 1980	17
11.	Numbers of angler-days expended by licensed anglers in the Northwest Territories in each month, 1980	18
12.	Number of areas fished by anglers in Saskatchewan, 1980	. 20
13.	Fishing effort expended by resident anglers from each area of the Northwest Territories expressed as a percentage of the angler-days spent in each area in 1980	21
14.	Numbers of fish caught by licensed anglers in the Northwest Territories, 1980	23
15.	Numbers of fish retained by licensed anglers in the Northwest Territories, 1980	23
16.	The average numbers of fish retained per angler-day in the Northwest Territories in 1980	24
17.	The average numbers of fish retained during the season by resident and nonresident anglers in the Northwest Territories in 1980	. 24
18.	Species preferred by anglers in the Northwest Territories, 1980	. 25
19.	Disposition of fish caught by anglers in the Northwest Territories in 1980	26
20.	Direct expenditures by anglers in the Northwest Territories in 1980	27

		<u>Page</u>
21.	Costs to anglers' households of "package trips" to the Northwest Territories in 1980	28
22.	Major angler purchases and investments attributable in whole or in part to angling within the Northwest Territories in 1980	29
23.	Resident angler boat ownership information, Northwest Territories in 1980	30
24.	Use of boats by resident anglers in the Northwest Territories, 1980	31
25.	Numbers and categories of comments made by respondents to the Northwest Territories angling questionnaire, 1980	33

#### **EXECUTIVE SUMMARY**

The sport fishery in the Northwest Territories was examined by means of questionnaires sent to a sample of licensed anglers who had fished there in 1980. This study, the second in a series carried out at five year intervals, was conducted to provide information on the numbers, origins, and destinations of anglers, their expenditures and investments in activities and equipment used for fishing, as well as the numbers and kinds of fish harvested and amount of fishing effort expended.

#### Angler Profile

There were 15,124 licensed anglers in the Northwest Territories in 1980. Of these, 6,394 were residents of the Territories and the remainder were Canadian and other nonresidents. About 88% of the residents, and 97% of the nonresidents fished. Almost 49% of the nonresident anglers were Canadians, mainly from Alberta and Ontario; the remaining nonresident anglers were United States citizens, mainly from the North Central Regions of the country.

The province was subdivided into nine areas for the purposes of the survey. Resident and nonresident anglers tended to fish in the southern part of the Territories in the area surrounding Great Slave Lake, however, a large number of nonresident anglers also fished in the area around Great Bear Lake. Moreover, there was a difference between residents and nonresidents in their selection of areas: 77% of residents, 86% of nonresident Canadians and 83% of other nonresidents fished in one area only. Overall, residents fished in as many as four areas, nonresident Canadians in five and other nonresidents in three.

The use of accommodation appears to reflect the uniqueness of the Northwest Territories fishery. Approximately 44% of Canadians and 80% of non-Canadians stayed in **fishing** lodges or camps; 23?4 of Canadians and only 2% of non-Canadians stayed with friends or relatives; and, 20% of Canadians and

5% of non-C **anadi** and stayed in tents or trailers. About 11% of al 1 nonresident anglers used other **commerci** al 1 odgi **ng** duri **nq** their trips to the Northwest Terri tori es.

The household income profile of resident and nonresident anglers is different. About 22% of resident anglers had household incomes under \$20,000, 37% between \$20,000 and \$29,999, and the remaining 41% over \$30,000. In contrast, 33% of nonresident Canadians had incomes less than \$20,000, 22% between \$20,000 and \$29,999, and 45% over \$30,000; less than 8% of other nonresidents had incomes less than \$20,000, 17% between \$20,000 and \$29,999, and close to 76% over \$30,000.

### Fishina Effort

Angling in the Northwest Territories is a major recreational activity. Anglers fished over 183,000 days in 1980, or 13.0 days per angler. Resident anglers fished an average of 19.2 days, nonresident Canadians fished 11.4 days, and other nonresidents fished 6.6 days.

Most fishing occurred during the summer period May through September. During that time, 91% of resident, 99% of nonresident Canadian, and virtually 100% of other nonresident fishing effort was expended.

#### Harvest

In 1980, licensed anglers caught an estimated 821,400 fish of all species and retained 228,600 of these which weighed an estimated 342,500 kilograms, or 767,000 pounds. Northern pike, lake trout, arctic grayling and walleye, in that order, comprised 980 of the harvest by number. Resident anglers caught 70% of the fish harvested.

Anglers in the Northwest Territories kept slightly more than 16 fish each, of which 4 were lake trout, 4 were northern pike and 2.5 were arctic grayling. Resident anglers preferred arctic grayling, walleye and

trout respectively but they **retained**, in decreas inquantity, northern pike, walleye and lake trout. **Nonresi** dent Canadians preferred, 1 ake trout, arctic grayl ing and arctic char and retained in decreasing order of quantity, lake trout, arctic grayl ing and northern pike. Other nonresi dents preferred and **retained** in order of quantity, lake trout, arctic grayling and northern pike.

#### **Expenditures and Investments**

In 1980, anglers spent \$9.8 mil 1 ion i n the Northwest Terri tori es on act ivi t i es di rect 1 y associ ated with sport fi shi ng. Residents spent a total of \$1.6 million, which represents an average of \$278 per angler. Nonresident Canadi ans spent \$1.9 million, an average of \$161 per angler. Other nonresidents spent \$6.3 million, an average of \$1439 per angler. The average expenditure for all active anglers was \$694.

Anglers invested \$3.0 million on major durables and property, of which 53%, or \$1.6 million, was attributed to sportfishing activities. Virtually all of these investments were made by residents. The average investments of residents was \$515, nonresident Canadians, \$26, and other nonresidents, \$12.

A **speci** all category of investment reflects resident boat ownership, without regard to year of purchase. The 1980 market value of the 2,768 boats reported was \$6.0 million. Outboards were most popular fol lowed by canoes. Outboards accounted for 55% of the market value of all boats and were used for 57% of all boat-days of fishing.

#### 1 NTRODUCTION

In 1980, a survey of sportfishing in the Northwest Territories was conducted to provide basic information on the interport ance of this fishery, to the public, ang 1 ers, and the sportfishing industry as well 1 as to fisheries management agencies. The survey was conducted by the Economics Branch of the Department of Fisheries and Oceans, Winnipeq, in co-operation with the Economic Policy Branch of the Department of Fisheries and Oceans, Ottawa.

The 1980 survey is the second in a series which are carried out at five year intervals. The results of the first survey are avail 1 ab le in an unpubli shed report entitled, "1975 Survey of Sportfishing in The Northwest Territories". Both surveys were part of a nationally-coordinated study conducted by all of Canadats provincial and territorial sport fisheries agencies and several regional offices of the federal Department of Fisheries and Oceans. Thus not only does this report provide a basic underst anding of the Territorial sport fishery in 1980, it also makes an important contribution to an underst anding of the national sport fishery.

#### SURVEY BACKGROUND

In 1970, representatives of Canadian fisheries agencies started to meet on a regular basis to discuss matters of common concern. At these meetings, now termed the Canadian Sport Fisheries Conferences, there was continuing agreement that effective management requires a framework of basic information reqarding the size, value, socio-economic performance and potential of Canada's sport fisheries. The size of this task was realized from the outset; no comprehensive information existed and partial coverage from the only previous survey, conducted in 1961, indicated that millions of Canadians and hundreds of millions of dollars were involved.

It was also realized that the development and publication of sport fishing data were required on a regular basis, and that all sport fisheries agencies must work together to provide such information. Plans made at the 1972 and 1974 conferences were implemented in January 1976 when thirteen provincial, territorial and federal sport fisheries agencies

1 aunched the first national ly-coordin ated set of surveys. Some 50,000 questionnaires which asked anglers about their fish ingactivities for the calender year 1975 were mai 1 ed. The response was qratifying: 60% of the anglers from across Canada provided informat i on for survey pub 1 i cations.

The success of the 1975 survey led to the development of the 1980 study. These surveys were successful in two important ways. First, they provided Canadians with the first authoritative data on the magnitude and importance of Canada's sport fisheries. Second, they demonstrated that, despite regional differences, consistent and comparable data can be generated from a common group of questions.

A total of 2,000 questionnaires were sent to persons who had purchased angling licences in the Northwest Territories in 1980, and 1,381 (69%) were completed and returned to provide the basis for the information given in the report. After extrapolating information from these returns, an overall description of sportfishing in the Northwest Territories was developed. Additional details regarding methods are contained in Appendix B. The questionnaires used in the 1980 survey are reproduced in Appendix C.

#### ANGLER PROFILE

#### **Numbers**

A total of 15,124 anglers held **fishing licences** in the Northwest Terri tories in 1980 (Table 1). Not al 1 of them fi shed: an estimated 1,079 anglers who bought **licences** did not fish. The estimated number of anglers who actually fished increased by almost 4,000 **from** 1975 (**Appendix** A, Table Al). There was also an increase in the number of resident anglers under the ageof 16.

TABLE 1. Numbers and characteristics of anglers in the Northwest Territories in 1980.

Characteristics	Resident	Nonres	Nonresident	
	of NUT	Canadian	Other	
Licensed angling population	6, 394a	4, 262a	4, 468	15, 124
Estimated nonactive anglers	758	229	92	1, 079
Estimated active anglers	5, 636	4,033	4, 376	14, 045
Mal es	4, 109	3, 498	4, 028	11, 635
Average age, years	33	37	49	40
Females	1, 527	534	348	2, 409
Average age, years	31	35	51	35
Estimated anglers under	1, 817	401	146	2, 364
16 years of age <sup>b</sup>				
Total estimated active	7, 453	4, 434	4, 522	16, 409
anglers of all ages		L/. =-"	z 9 56_	

a Resident and other Canadian angling licences are identical. The number of Canadians other than Northwest Territories residents was estimated from the sample drawn in 1980.

b Minimum estimate since only households of licensed anglers were surveyed.

A total of 6,384 Northwest Territories residents, or 24% of the territorial population over 15 years of age, held Northwest Territories angling licences in 1980 (Table 1). The total number of Northwest Territories residents of all ages who were active in 1980 was 7,453 or 17% of the population. Over 73% of the licensed active resident anglers were male, while for nonresidents, males comprised almost 90% of all active anglers. Approximately 14% of all anglers were under 16 years of age.

### Origins

There were an estimated 16,409 active anglers of all ages in 1980 (Table 1). Of these, 45% were residents, 27% were Canadians from these areas, and 28% other residents of the United States.

TABLE 2. Resident angling licence distribution and use in 1980.

Area	Licence Holders		Us	ed
	no.	*	no.	%
Great Slave	294	4. 6	233	79. 3
Great Bear	147	2. 3	147	100. 0
MacKenzie River	1, 017	15. 9	906	89.1
I-1ay R Ft. Smith	2, 220	34. 9	1,813	81.3
Yellowknife	2, 009	31. 4	1,788	89.0
North Coast	122	1. 9	122	100. 0
Keewatin	122	1. 9	110	90. 2
Hudson Bay	294	4. 6	208	70. 7
Franklin	159	2. 5	135	84. 9
TOTAL	6,394	100.0	5,463	84.4

Almost two-thirds of the resident anglers were from the Yellowknife and Hay River - Ft. Smith areas. Another 16% came from the MacKenzie River area of the Territories (Table, 2 Fig. 1).

More than 4,000 nonresident Canadians fished in the Northwest Territories in 1980 (Table 4, Figure 2). Close to 37% of the anglers came from Alberta, 25% were from Ontario, and 17% fromManitoba. Theremaining 21% were residents of all other provinces and the Yukon, except New Brunswick.

More than 4,400 United States residents fished in the Northwest Territories in 1980 and chose to 60% came from the North Central regions (Table 4, Figure 3).

FIGURE 1: Estimated number of anglers by district of residence, 1980.

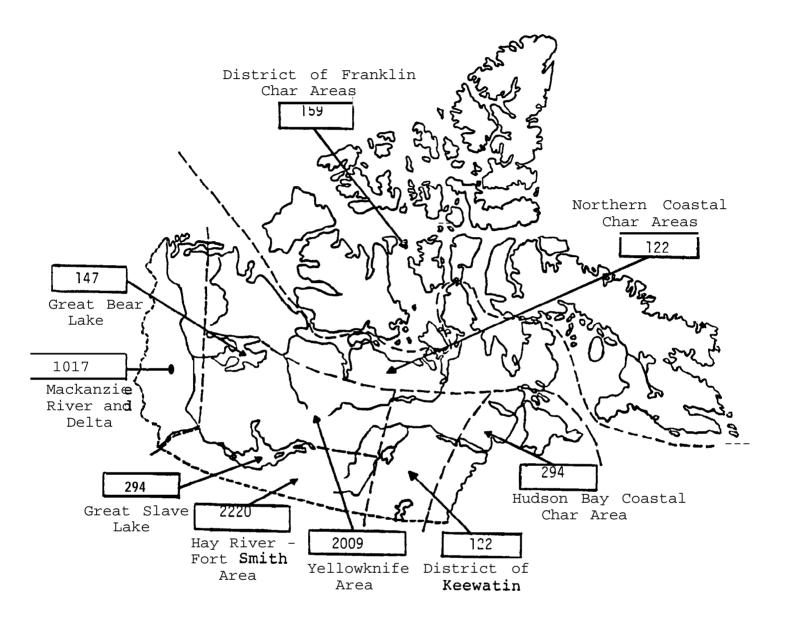


FIGURE 2: Numbers of Northwest Territories residents fishing elsewhere in Canada and nonresident Canadians fishing in the Northwest Territories.

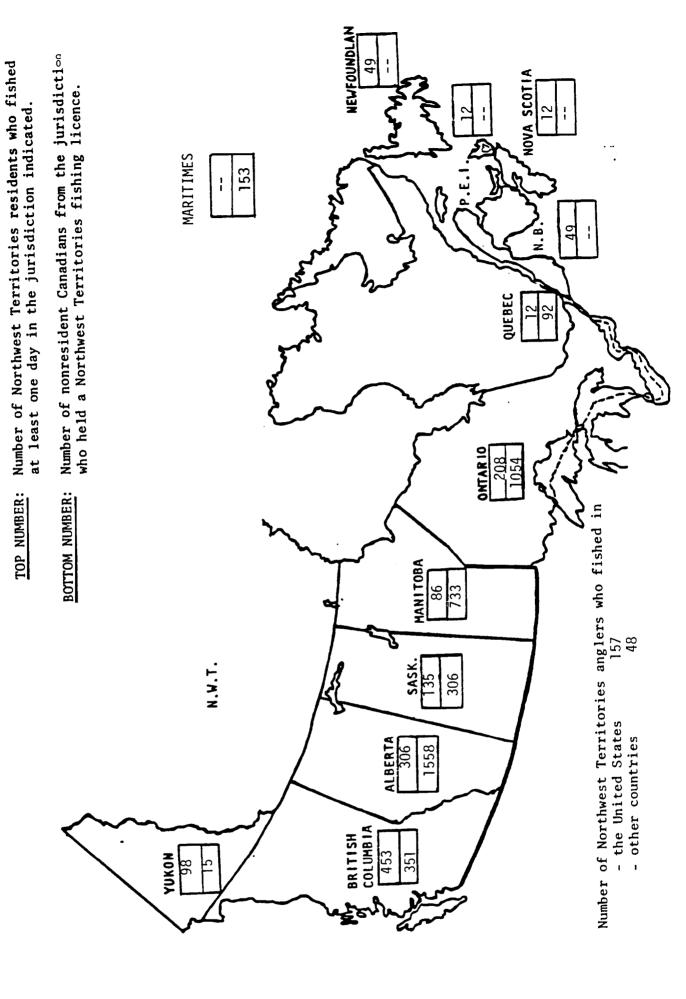
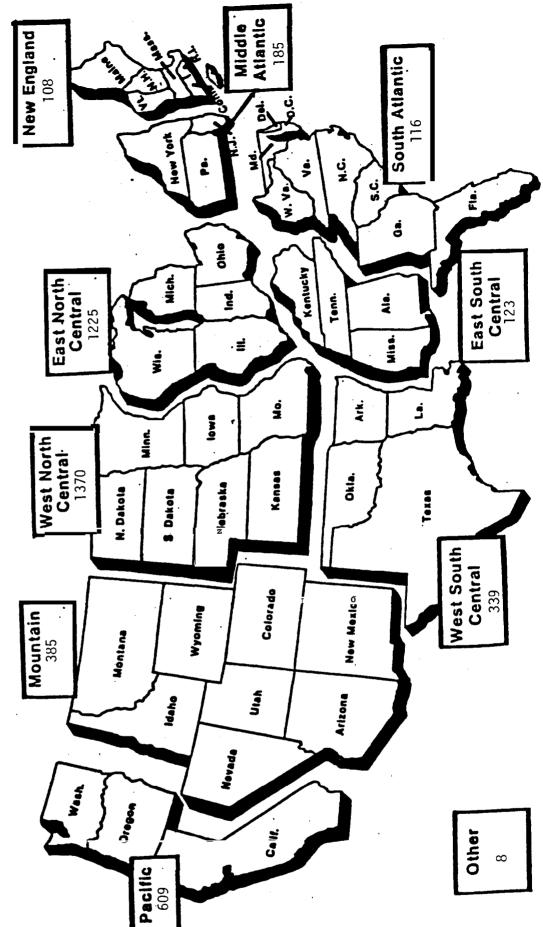


TABLE 3. Origin and **numbers** of nonresident anglers who held **Northwest**Territories angling licences in 19 W).

Province/State Group	Number	Proportion of Total
anadian (see Fig. 2)		%
Maritimes	153	1.8
Quebec	92	1.1
Ontari o	1, 054	12. 1
Mani toba	733	8.4
Saskatchewan	306	3. 5
Al berta	1, 558	17.8
British Columbia	351	4. 0
Yukon Territory	15	0. 2
Canadian Total	4, 262	48. 9
lon-Canadian (see Fig. 3)		
New England, U.S.A.	108	1. 2
Mid Atlantic, U.S.A.	185	2. 1
East North Central, U.S.A.	1, 225	14. 0
West North Central, U.S.A.	1, 370	15. 7
West North Central, U.S.A. Mountain, U.S.A.	1, 370 385	
		15. 7
Mountain, U.S.A.	385	15. 7 4. 4
Mountain, U.S.A. Pacific, U.S.A.	385 <b>609</b>	15. 7 4. 4 7. 0
Mountain, U.S.A. Pacific, U.S.A. South Atlantic, U.S.A.	385 <b>609</b> 116	15. 7 4. 4 7. 0 1. 3
Mountain, U.S.A.  Pacific, U.S.A.  South Atlantic, U.S.A.  East South Central, U.S.A.	385 <b>609</b> 116 123	15. 7 4. 4 7. 0 1. 3 1. 4
Mountain, U.S.A.  Pacific, U.S.A.  South Atlantic, U.S.A.  East South Central, U.S.A.  West South Central, U.S.A.	385 <b>609</b> 116 123 339	15. 7 4. 4 7. 0 1. 3 1. 4 3. 9

Regional distribution and numbers of residents of the United States hold  $^{\rm l}$  angling licenses in the Northwest Territories, 1980. FIGURE 3:



#### Motivations

The tradition for fishing in the Northwest Territories is closely related to its remoteness and the nature of population movement (Table 4): in 1980, 59.4% of all resident anglers reported they had also fished in 1979, while only 32.0% of them had also fished in 1975. There was more turnover among nonresident anglers in 1980, about 20% reported they had fished in 1979, and only 9% had also fished in the Territories in 19 '5.

Close to 70% of the nonresident anglers reported that sportfishing was the primary reason for their travel (Table 5). Nonres dent Canadians indicated that about 45% of their trips were primarily for fishing whereas other nonresidents stated that 91% of their trips were for this purpose. Another 20.% reported angling as a secondary reason and the remaining 1% indicated that their angling was decided after their arrival.

About 88% of nonresident anglers indicated that they planned to return to the Northwest Territories to fish in the future (Table 6), however 59% indicated they would not come back if sportfishing was no longer available (Table 7). Over 91% of nonresident anglers rated the fishing they had experienced as good to excel lent (Table 8).

Nonresident anglers tended to stay at fishing lodges (Table 9).

Over 44% of nonresident Canadians and 80% of other nonresidents stayed at fishing lodges. A large percentage of Canadian nonresidents also stayed with friends or relatives, whereas the remaining nonresidents tended to stay in hotels, motels and other commercial lodging.

#### **Income Profile**

There were marked differences in the annual household incomes among the three groups of anglers who fished in Northwest Territories in 1980 (Table 10). Most resident anglers indicated that their annual incomes were between \$10,000 and \$29,999. In contrast, a high percentage of nonresident

TABLE 4. Fishing activity in the Northwest Territories by active anglers who held Northwest Territories angling licences in the previous five years.

	Resi dent	Nonres		
Year	Resident	Canadi an	Other	Total
No. of licences issued in 1980	6, 394	4, 262	4, 468	15, 124
No. who fished in 1980	5, 636	4,033	4, 376	14, 045
<b>%</b> active	88.1	94. 6	" 97. 9	92. 9
No. of 1980 anglers				
who fished in 1979	3, 797	901	878	5, 576
<b>%</b> of 1980	59. 4	14. 3	19. 7	36. 9
No. of 1980 anglers				
who fished in 1978	3, 197	611	778	4, 586
<b>%</b> of 1980	50. 0	14. 3	17. 4	30. 3
No. of 1980 anglers				
who fished <b>in</b> 1977	2, 609	458	632	3, 699
<b>%</b> of 1980	40. 8	10. 7	14. 1	24. 5
No. of 1980 anglers				
who fished in 1976	2, 376	351	508	3, 235
<b>%</b> of 1980	37. 2	8. 2	11. 4	21. 4
No. of 1980 anglers				
who fished in 1975	2, 046	275	493	2, 814
<b>%</b> of 1980	32. 0	6. 5	11.0	18. 6

anglers reported their annual incomes to be above \$30,000. A significant proportion (59.6%) of non-Canadian anglers reported annual incomes in excess of \$40,000.

TABLE 5. Fishing trip motivation for nonresident anglers in the Northwest Territories, 1980.

Mot i vat ion	Canadian		Othe	er	Tot al	
	No.	х	No.	*	No.	%
Main reason	2, 032	44. 8	4, 861	91. 3	6, 893	69. 9
Secondary reason	1, 635	36. 0	339	6. 4	1, 974	20. 0
Decided upon	871	19. 2	123	2. 3	994	10. 1
after arrival						
TOTAL a	4, 538	100.0	5,323	100.0	9,861	100.0

TABLE 6. Projected future participation by nonresident anglers in the Northwest Territories in 1980.

Future Fishing	Canac	Canadian Othe		her Tot al	
	No.	%	No. %	No.	*
Yes	3,636	89.5	3,782 87.1	7,418	88.2
No	428	10. 5	562 12.9	990	11.8
TOTAL a	4,064	100.0	4,344100.0	8,408	100.0

<sup>&</sup>lt;sup>a</sup>Tot als di ffer from the actual number of licences i ssued: i nformation is based on only those who answered the question.

TABLE7. Nonresident vi sit alternatives if there had been no fishing opportunities in the Northwest Territories in 1980.

Alternative	Canadian		rnative Cana		Otl	her	Tot	al
	No.	%	No.	%	No.	х		
Stayed a shorter time	382	10. 2	146	3. 4	528	6. 6		
Substituted other activities	2, 047	54.7	724	16. 8	2, 771	34. 4		
Not come at al 1	1,314	35. 1	3, 443	79. 8	4, 757	59. 0		
TOTALa	3, 743	100.0	4,313 1	00.0	8.056	100.0		

TABLE 8. Nonresident views of their fishing experiences in the Northwest Territories in 1980.

Rating	Canad	Canadi an		Other		Tot al	
	No.	*	No.	%	No.	%	
Excel lent	2, 093	52. 9	2, 758	64. 2	4, 851	58.8	
Very Good	886	22. 4	917	21. 3	1, 803	21. 9	
Good	535	13.5	354	8.2	889	10.8	
Fair	214	5. 4	216	5. 0	430	5. 1	
Poor	229	5. 8	54	1. 3	283	3. 4	
TOTALa	3,957	100.0	4, 299	100.0	8, 256	100.0	

<sup>&</sup>lt;sup>a</sup>Totals differ from the actual number of 1 i cenc es issued: i nformat i on is based on only those who answered the question.

TABLE 9. Type of accommodation used by nonresident anglers in the Northwest Territories in 1980.

Accommodate ion	Canad	l <b>i</b> an	ian Other		r Tot al	
	No.	*	No.	%	No.	*
Friends & Relatives	993	23. 1	85	1. 9	1, 078	12. 1
Tent or Trailer	871	20.3	208	4. 5	1, 079	12. 1
Fishing lodge or camp	1, 894	44.1	3, 675	80.0	5, 569	62. 7
Other commercial 1 odg i ng	474	11.0	524	11. 4	998	11. 2
Other	61	1.4	100	2. 2	161	1. 8
TOTAL <sup>3</sup>	4,293	100.0	4, 592	100.0	8, 885	100.0

<sup>&</sup>lt;sup>a</sup>Totals differ from the actual number of licences issued: some respondents indicated more than one type of accommodation.

TABLE 10. Household income profile of anglers who fished in Northwest Territories in 1980.

Income	Resident	Nonresident		
Bracket		C <b>ana</b> di an	Other	
\$	*	%	%	
Under 10,000	3. 2	12.5	2. 7	
10,000 - 19, 999	18. 5	20. 5	5. 8	
20,000 - 29,999	37.3	21.6	16.7	
30,000 - 39,999	23.8	19.0	15. 2	
Over <b>40,000</b>	17.2	26.4	59.6	
TOTAL	100.0	100.0	100.0	

#### ANGLER FISHING EFFORT AND HARVEST

### Fishing Effort

Anglers fished an estimated 183,296 days in 1980 (Table 12), an increase of 7.5% from the 106,275 angler days reported for 1975 (Appendix A, Table A4). In all, about 94% of the angling took place during the five month period May to September. July was the **most** popular month for both residents and nonresidents. Residents who accounted for 59% of all **angling** activity, fished an average of 19.2 days, whereas nonresidents averaged 8.8 days. No estimate of effort could be made for anglers under 16 years of age.

TABLE 11. Numbers of angler-days expended by licensed anglers in the Northwest Territories in each month, 1980.

	Nonresident				
Month	Resident	C <b>anadi</b> an	Other	Tot al	
January	642	0	0	642	
February	1,044	0	0	1,044	
March	1,864	92	0	1, 956	
Apri 1	2,879	169	0	3, 048	
May	9,133	1,050	16	10, 199	
June	21,555	6,645	2, 690	30, 890	
Jul y	29,488	19,150	13, 416	62, 054	
August	26,398	16,243	11, 557	54, 198	
September	11,816	2,540	1, 178	15, 534	
October	1,915	169	0	2, 084	
November	863	15	0	878	
December	683	0	86	769	
ANNUAL TOTAL	108,280	46,073	28,943	183,296	
Average/angler	19. 2	11. 4	6. 6	13. 1	

# Fishing Areas

The Great Bear, Great Slave and Hay River - Ft. Smith areas of the Northwest Territories were the prime attractions for nonresident anglers with 73% of their ang 1 i ng effort occ urri ng there (Figure 4). Most res i dents f i shed i n the southern part of the Terri tories i n the areas surroundi ng Great S1 ave Lake. Over 66% of their fishing activities occurred there.

4.5 Northern Coastal Hudson Bay Coastal Nonresident Char Areas Resident Nonresident Total Char Area Resident Total 2.5 8.3 4.9 District of Nonresident Keewatin Resident Total 24,2 3,8 15.9 Nonresident Total Yellowknife Resident Area 30.5 28.7 29.8 District of Franklin 3.2 Nonresident Fort Smith Hay River Resident Nonresident Char Areas Total Area Resident Tota 1 Lnol-**Great Slave** Nonresident Nonresident 31.3 Total 14.0 6.7 Resident Total Lake **Great Bear** <u>Lake</u> Resident Nonresident MacKenzie River and Resident Del ta Total

FIGURE 4: Percentage of angler-days expended by anglers in each f sh ng area of the Northwest erritories in '980

TABLE 12. Number of areas fished by anglers in the Northwest Territories, 1980.

	Resident	Nonresi	dent
		Canadian	Other
	%	%	%
Fished one area only	77. 1	86. 4	83. 1
Fished two areas	19. 7	11. 7"	16. 5
Fished three areas	2. 5	1.1	0. 4
Fished four areas	0. 7	0. 4	0
Fished five areas		0.4	
TOTAL	100.0	100.0	100.0

In general, most resident anglers fished in only one area (Table 13) and that area tended to be the **pl** ace where they lived (Table 14). Residents of the Great Slave area, for example, spent about 64% of their angler days there and 36% in other areas. Residents fished in up to four areas whereas nonresidents fished in a maximum of five.

Residents fishing outside the Territories fished primarily in British Columbia and Alberta in 1980 (Figure 2). Residents fished in all provinces and the Yukon in 1980. Only slightly over 200 indicated that they fished outside of Canada in 1980.

TABLE 13. Fishing effort expended by resident anglers from each area of the in each area in 1980.

		Area Fished									
Area of	_	Great	Great	<b>Mackenzi</b> e	Hay River <b>Ye</b> l	10w- I	North Keewat	in	Hudson	<b>Frankli</b> n	Tot al
Residence		Slave	Bear	River	Ft. Smith	knife	Coast		Bay		
Great Slave		64.3	4.7	0	22.9	8.1	0	0	0	0	100.0
Great Bear		0	98. 6	0.7	0	0. 7	0	0	0	0	100.0
Mac <b>Kenzi</b> e River		0. 7	0. 5	91. 9	1. 7	1. 9	1.4	0	0	1. 9	100.0
Hay <b>Ri</b> ver-Ft.	Smi t	h 9.4	1.7	2.0	82. 5	3. 8	0	0	0	().6	100.0
Yel 1 owkn i fe		20.09	0.1	1.6	2.2	70.3	3.1	0.	7 0	2.0	100.0
North Coast		0	0	0	1.8	0	96.8	0	0.7	0.7	100.0
Keewat i n		0	0	0	1. 3	1. 3	1. 3	92.	9 3.2	0	100.0
Hudson Bay		0	0	0	0	1. 2	0. 2	5. 1	1 93. 5	0	100.0
Frank 1 i n		0	0	0	0	1. 7	0	0	0	98. 3	100. 0

#### Harvest

In 1980, anglers caught an estimated 821,000 fish of all species (Table 16), of which they retained 228,600 (Table 17), weighing about 342,500 kilograms (Table 18). Resident anglers kept over 60% of their catches, whereas nonresident Canadians kept 17% and other nonresidents kept 9%. The number kept in 1980 represented an increase of 35% over that reported in 1975 (Appendix A, Table A5).

The total harvest of fish in the Northwest Territories is considerably greater than the 228,000 indicated because it does not include fish taken by anglers under 16 years of age. Underage anglers comprise 14% of the estimated total anglers and their harvest would substantially increase the total harvest. There is, however, no way of estimating this harvest from available data.

Northern pike, lake trout and arctic grayling, comprised 66% of the harvest while arctic char and walleye accounted for another 27% (Table 17). Resident anglers caught 70% of the fish harvested by licensed anglers. There were increased harvests of all major species over 1975 which contributed to the larger harvest in 1980.

In 1980, the average catch per angler-day for all species by resident anglers was close to 1.5 whereas nonresident catches per angler day were between 0.8 and 1.1 (Table 19). Overall, the two top species (pike, and lake trout) provided somewhat more than 0.3 fish of each species per angler-day. There was considerable variation within these averages. For example, the average catch of pike to residents was 0.43 fish per angler-day, but was about 0.13 fish to Canadian anglers and half this to other anglers. The average catch of all species per angler-day in 1980 was much lower than that reported in 1975 (Appendix A, Table A5).

**TABLE 14. Numbers of** fish caught by licensed anglers in the Northwest Territories, 1980.

	Nonresident					
Speci es	Resi dent	Canadi an	Other	Total		
Lake trout	43, 198	119, 964	167, 929	331, 091		
Northern pike	102, 912	42, 391	84, 525	229, 828		
Arctic grayling	29, 946	46, 638	64, 404	140, 988		
Walleye	38, 811	5, 062	12, 948	56, 821		
Arctic char	24, 605	5, 240	9, 338	39, 183		
Other species	20, 595	1, 084	1, 832	23, 511		
ALL SPECIES	260,067	220,379	340,976	821,422		

TABLE 15. Numbers of fish retained by licensed anglers in the Northwest Territories, 1980.

	Nonresident					
Speci es	Resi dent	Canadi an	0ther	Total		
Northern pike	46, 200	5, 983	5, 789	57, 972		
Lake trout	27, 148	15, 725	13, 720	56, 593		
Arctic grayling	18, 945	9, 080	7, 125	35, 150		
Walleye	28, 129	3, 282	2, 320	33, 731		
Arctic char	22, 727	2, 490	2, 145	27, 362		
Other species	16, 724	550	468	17, 742		
ALL SPECIES	159,873	37,110	31,567	228,550		

**TABLE 16.** The average numbers of fish retained per angler-day in Northwest Territories in 1980.

Speci es	Nonresident					
	Resi dent	Canadi an	0ther	Total		
Northern pike	0. 43	0.13	0.20	0.32		
Lake trout	0.25	0.34	0.47	0.31		
Arctic grayling	0. 17	0. 20	0. 25	0. 19		
Walleye	0. 26	0. 07	0.08	0. 18		
Arctic char	0. 21	0. 05	0. 07	0. 15		
Other species	0. 15	0. 01	0. 02	0. 10		
ALL SPECIES	1.48	0.81	1.09	1.25		

TABLE 17. The average numbers of fish retained during the season in the Northwest Territories in 1980.

	Nonresident					
Species	Resident	Canadian	Other	Total		
Northern pike	8. 2	1.5	1.3	4. 1		
Lake trout	4.8	3. 9	3. 1	4.0		
Arctic grayling	3. 4	2. 3	1. 6	2. 5		
Walleye	5. 0	0.8	0. 5	2. 4		
Arctic char	4. 0	0. 6	0. 5	1. 9		
Other species	3. 0	0. 1	0. 1	1. 3		
ALL SPECIES	28.4	9.2	7.2	16.3		

On average, each angler over 15 years of age caught and retained 16 fish in 1980 (Table 20). Each resident angler kept 28 fish; nonresident Canadians kept 9; and, other nonresidents kept 7 fish.

### Preferences

Arctic grayling and walleye were most preferred by resident anglers in while lake trout and arctic grayling were the top preferences of nonresident anglers (Table 22). Trout were third in importance for resident anglers whereas arctic char was third in importance to Canadian nonresident anglers; northern pike for other nonresidents. Although residents preferred arctic grayling, they actually harvested more pike (Table 17). For nonresident anglers: they preferred lake trout (Table 22) which accounted for the largest part of the nonresident harvest.

TABLE 18. Species preferred by anglers in the Northwest Territories, 1980.

dent		
	Canadi an	Other
c grayling	Lake trout	Lake trout
ye	Arctic grayling	Arctic grayling
(general)	Arctic char	Northern pike
trout	Northern pike	Arctic char
ern pi ke	Walleye	Walleye
c char	Trout (general)	Trout (general)
-! # - &! -  -	Rainbow trout	Rainbow trout
	c char whitefish	,

#### Consumption

In 1980, anglers kept close to 342,500 kilograms of fish (Tables 18 and 23). Anglers indicated that they are over 294,000 kg of the fish they caught. About 80% of the catch was consumed by the anglers' households, about 12% was given to others, and 8% was used in other ways, particularly taxidermy for nonresident angler trophy catches.

TABLE 19. Disposition of fish caught by anglers in the Northwest Territories in 1980.

	Nonresident				
	Resident	Canadian	Other	Total	
Total fish					
weight (kg)	201, 039	66, 188	75, 231	342, 458	
% eaten	83. 6	79. 2	68. 9	79. 5	
% siyon away	12. 4	12. 9	11. 2	12. 2	
<b>%</b> given away	12. 4	12. 9	11. Z	12. 2	
% other uses	4.0	7.9	19.9	8.3	
Wei ght					
eaten (kg)	190, 435	51, 316	52, 522	294, 273	

### ANGLER EXPENDITURES AND INVESTMENTS

### **Expenditures**

Anglers spent \$9.8 million on activities directly associated with sportfishing in 1980 (Table 20). Resident anglers spent \$1.6 million, or \$278 per angler; nonresident Canadians spent \$1.9 million within the province, or \$478 per angler; and other nonresidents spent \$6.3 million or \$1,439 per angler. Overall, anglers doubled their expenditures for sportfishing in 1980 over 1975 (Appendix A, Table A6). Average expenditures per angler increased 63% to \$697. Expenditures by resident anglers were 80% greater and nonresident expenditures were 105% greater in 1980 than in 1975.

TABLE 20. Direct expenditures by anglers in the Northwest Territories in 1980.

	Nonresident					
Expenditure Category	Resident	Canadian	Other	Total		
	\$	\$	\$	\$		
Package deals	177, 067	1, 041, 898	5, 243, 221	6, 462, 186		
Lodgi ng	41, 164	157, 046	181, 705	379, 915		
Campsi te fees	10, 603	4, 989	1, 650	17, 242		
Food	272, 377	150, 495	119, 932	542, 804		
Travel costs	491, 066	275, 182	213, 868	980, 116		
Boat rentals	14, 034	15, 787	8, 279	38, 100		
Fishing supplies	290, 742	73, 653	86, 433	450, 828		
Bai t	5, 116	2, 096	5, 190	12, 402		
Household boat	196, 222	11, 444	3, 927	211, 593		
Gui de servi ces	1, 539	12, 206	87, 667	101, 412		
Fishing licences	23, 136	14, 996	28, 078	66, 210		
Taxi dermy	32, 142	41, 145	117, 474	190, 761		
Other	9, 664	125, 759	199, 587	335, 010		
TOTAL	1,564,872	1,926,696	6,297,011	9,788,579		
Average	277. 66	477. 73	1, 438. 99	696. 94		

Costs of travel and food accounted for 73% of the annual expenditures by resident anglers (Table 20). These items represented 86% of nonresident expenses, and include costs incurred under the heading of "package trips" which are a major attraction to nonresident anglers.

Stays at fishing lodges were the most popular among "package trips" comprising 91% of the total expenditures on such "trips" (Table 21).

Nonresident anglers utilized package trips more than residents, spending 6.3 million, or 97% of the total.

TABLE 21. Costs to anglers' households of 'package trips to the Northwest Territories in 1980.

Туре	Nonresident						
	Resident	Canadian	Other	Total			
Lodge	84, 375	817, 974	4, 984, 979	5, 887, 328			
Outfitter	7, 166	124, 627	176, 987	308, 780			
Other services	85, 526	99, 297	81, 255	266, 078			
TOTAL	177,067	1,041,898	5,243,221	6,462,186			

#### Investments

Anglers invested \$3.0 million in 1980 on major durables and property used in whole or in part for sportfishing (Table 26). Almost all of the major purchases were made by residents, with boating equipment and special vehicles comprising 83% of the outlay.

The amount invested by anglers on major durables and property was about 48% greater in 1980 than in 1975 (Appendix A, Table A7). Although the totals were similar there were major differences in the items comprising them. For example, the large increases in investments for nearly all items in 1980, were only offset slightly by the very large decreases in investment for campers and related equipment.

Anglers were asked to indicate the relative amount of time each of their investments was used for **sportfishing** in 1980. Some items, such as fishing gear, were wholly attributable to **sportfishing**, whereas others, such as boats, were only partly used for this. Overall, anglers indicated that about \$1.6 million, or 53% of the \$3.0 million invested was used for **sportfishing** purposes (Table 26).

TABLE 22. Major angler purchases and investments attributable in whole or in part to angling within the Northwest Territories in 1980.

Expenditure	Nonresident					
Category	Resident	Canadian	Other	Total		
	\$	s	\$	\$		
Boats, motors and related equipment	1, 482, 296	<b>59,500</b> 10, 785		1, 552, 581		
Special vehicles	922, 782	0	0	922, 782		
Cottages and Land	188, 329	0	0 34, 627			
Campers and related equipment	210,552	7,638	1,367	219,557		
Fishing gear	46,462	9,028	6,919	62,409		
Other items	51,139	16,009	0	67,148		
TOTAL	2, 901, 560	92, 175	53, 698	3, 047, 433		
Proportion allocated to sportfishing (%)	51. 9	60. 7	98. 1	53. 0		
Total dollars invested in fishing	1,505,832	55, 910	) 52, 659	1, 614, 311		
Average/angl er	414.83	22.86	12.27	216.98		

### Boat Ownership and Use

Resident anglers owned 2,768 boats in 1980 with a market value of \$6.0 million (Table 27). Almost one-half of them were outboards, which were used about 48% of the time for fishing (Table 28). There were 963 more boats in the Northwest Territories in 1980 than in 1975 (Appendix A, Table A8). The total value of all boats was about \$4 million more in 1980 than in 1975, an increase of almost 200%. In general, boats were used less for fishing and more for recreation in 1980 than in 1975.

TABLE 23. Resident angler boat ownership information, Northwest Territories, 1980.

Boat Type	Number		1980 Market Value		Average Value
		*	\$	*	\$
Canoe	921	33.3	722,920	12.0	785
Rowboat	151	5.5	106,748	1.8	707
Outboard	1, 332	48. 1	3, 310, 751	54.9	2, 486
Sailboat	69	2. 5	495, 780	8.2	7, 185
Inboard-outboard	75	2. 7	904, 898	15.0	12, 065
Inboard	18	0. 7	257, 230	4.3	14, 291
Other .	202	7. 3	236, 218	3.9	1, 169
TOTAL	2,768	100.0	6,034,545	100.0	

TABLE 24. Use of boats by resident anglers in Northwest Territories, 1980.

Boat <b>Type</b>	Days All Recreation	Days Fishing	Fishing as a proportion of Recreation Days
			%
Canoe	15, 682	7, 062	45. 0
Rowboat	2, 421	1, 539	63. 6
Outboard	32, 132	15, 437	48. 0
Sailboat	1, 443	80	5. 5
Inboard-outboard	3, 017	1, 335	44. 2
Inboard	968	502	51. 9
Other	3, 226	936	29. 0
TOTAL	58,889	26,891	45.7

## **ANGLER** COMMENTS

Both resident and nonresident anglers tended to make generally positive comments regarding the Northwest Territories sport fishery. For both groups, positive comments about Canada and the quality of fishing were ranked at the top of the comments. They also gave praise to the condition of camp grounds and the quality of water in the Territories.

There were however, marked differences in their comments regarding regulations and enforcement. While a small number of nonresidents mentioned complaints about regulations, this was the third ranked comment for residents. Coupled with this, additional comments on overfishing as well as enforcement problems ranked quite high. Residents also felt that access to the fishing areas should be improved and a small number felt that fishing in the Territories was too expensive.

The top six comments made by nonresidents **centred** on cleanliness and quality of fishing in the Northwest Territories. Ranking behind these were complaints regarding limits and regulations. Both residents and nonresidents alike expressed a desire to see limits increased. This, however, was ranked far behind other comments as a major concern for anglers.

Table 25 provides the ten top comments given by resident and nonresident anglers in the Northwest Territories.

TABLE 25. Frequent y identified comments and concerns, 1980.

	Resident		Nonresident Canadian		Nonresident Other
Ι.	Canada P∽tive	;	NWT People Friendly	-	1. NWT People Frendly
	Fishing Good	2.	Canada P⇔iti∨≲	2	Fish∵ng Good
	Complaints About Reguations	က်	F shing Good	3	3. Canada Pos t ∨≤
	Improve Access, Roads	•	Water Is Clear	4.	Camp Excel ent
	<pre>≤n ⇔ce Regu ations</pre>	5.	Parks, Camps tes, C ean	5.	Water is C'ean
	Water - Clean	9	Camps Excellent	9.	Parks, Campsites Clean
	Raise L mits	7.	Comp. a nts About Regu ations	7.	7. Complaints About Regulations
	F shing oo Costly	<b>α</b>	Clean' ness - Positive	8	Ra se Lim ts
	Parks, Camps t≼s. C ean	9.	Raise Limits	9.	9. C'eanliness Positive
0.	Overfishing Evident	10.	Fishing Poor	10.	10. Fishing Poor

### **SUMMARY**

The results of the 1980 survey of sportfishing in the Northwest Territories confirm that it is an important economic component of the natural resource sector in the province. Four measures of that component are reported herein. First, it is estimated that anglers spent \$9.8 million on activities directly associated with fishing. These were monies spent on accommodation, food, travel, bait, licences, etc. Second, anglers invested \$3.0 million on major durables and property of which \$1.6 million was used for sportfishing. In all, anglers spent and invested over \$12.8 million in 1980, of which \$11.4 million was wholly attributable to sportfishing within Northwest Territories. In most other reports on sportfishing, both annual expenditures and angler investments are lumped together and called "gross" expendi tures. The two are separated herein so the importance of each within the economy can be better understood and assessed.

Economists generally agree that the first round of expenditures in most segments of the business world do not adequately reflect the full impact of spending such as described above. As the money circulates into associated businesses, the economic effect increases by a factor of 1.5 or greater. On this basis, the direct economic impact of **sportfishing** within the Northwest Territories economy was about \$17 million in 1980.

The third measure, boat ownership and use, provides further light on angler investments. Resident anglers reported they owned almost 2,800 boats with a 1980 market value of \$6.0 million. These were used 46% of the time for sportfishing. This means that anglers "allocated" \$2.7 million of their investment in boats for sportfishing in 1980.

The fourth measure concerns the fishing effort and harvest. Overall, there have been major changes in angling activities within Northwest Territories since 1975. The total number of licensed anglers increased 33% to 15,124 and the number who fished was about 3,400 more than in 1975. The number of days fished increased by about 73% to over 183,000 days while the total harvest increased by over 35% to 228,550 fish.

In conclusion, the 1980 survey indicated that angling in Northwest Territories constituted a fishery of major proportions. More than 18,000 anglers fished, and of these, more than 7,400 were residents of Northwest Territories. This means that almost one Northwest Territories resident in six fished in 1980. Anglers fished a total of 183, 200 days, or about 13 days per person in 1980, and they harvested over 228,000 of all species weighing over 342,000 kilograms, or 754,000 pounds.

## APPENDIX A

COMPARISON OF RESULTS OF 1975 AND 1980 SURVEYS

TABL  $^{\epsilon}$  A1. Comparison of the number and characteristics of anglers who f shed n the Northwest Territories in 1975 and 1980.

Characteristics	1975	Resident 1980	sident 1980 % change	1975	Nonresident 1980 % change	t change	1975	Total 1980 %	% change
			,						
Angler Popu طtion الاicense،	4,851	< 394 × 394	+31.8	6,524	8,730	+33.8	3,35	5, 24	+ 8. 4.
Estimated Nonactiv≼ Anglers	492	758	+54.1	207	321	+55.1	78	1.078	+54.0
Estimated Activ≼ Anglers	4,	5.63≰	+29.3	6,317	8,409	+33.1	° × 75	14,0≒5	+31.6
Ma`≉S	3,557	4,09	+ 5.5	5.6 ₹4	7,526	+32.8	9,221	11,635	+26.≤
Fंडानत ≰S	805	1.527	+90.4	652		+35.3	1,454	2,409	+65.7
Estimated Anglers Under 16 Years of Age	1,322	1,817	+37.4	650	547	- 5.8	1.972	2,364	+68.3
Total Estimated Active Anglers of all Ages	5,681	7,453	+31.2	6,967	8,956	+28.5	12,648	14,409	+13.9

TABLE A2. Comparison of angler-days expended per month by anglers in the Northwest Ter∺itories, 1975 and 1980.

Month/Season	1975	Resident 1980	% change	1975	Nonresident 1980 % c	nresident 1980 % change	1975	Total 1980	% change
Variation	147	642	+336 7	•	1	1	147	642	+336.7
February	351	1.044	+197.4	1	•	,	351	1,044	+197.4
March	646	1,864	+188.5	•	36	1	646	1,956	+202.2
Apri	683 683	2,879	+321 5	249	169	-32.1	932	3,048	+227.0
Mak	4,507	9,133	+151.4	1,000	1 066	9.9+	5,507	10,199	+85.2
June	2,683	21,555	+69.9	6,006	9 335	+55.4	18,689	38,890	+65.3
Jul.	20,812	29,488	+41.7	17,616	32, 566	+84.9	38,428	62,054	+61.4
August	16,635	26,398	+58.7	12,296	27,800	+126.1	38,931	54,198	+39.5
September	6,407	11,816	+84.4	3,960	3, 718	-6.1	10,367	15,534	+49.8
October	1,632	1,915	+17.3	. 67	169	+152.2	1,699	2,084	+22.7
November	386	863	+123.5	19	15	-21.1	405	878	+116.8
December	111	683	+515.3	62	98	+38.7	173	692	+344.5
YEAR	65,000	108,280	9-99+	41,275	75,016	+81.7	106,275	183,296	
Average per active angler	14.9	19.2		6.5	8.9		10.0	13.0	

 $\text{T} \land \text{BL}^{\leq}$  A3. Comparison of the number of fish caught and retained by licensed anglers in the Northwest Territories 1975 and 1980.

Spec.es	1975	Resident <b>1980</b>	t % change	1975	Nonresident 1980 %	resident 1980 % change	1975	lotal <b>1980</b>	% change
Lake Trout ,	23,802	27,148	+14.1	23,409	29,445	475.8	4/,211	56,593	<b>8</b> n +
Northern Pike	26,640	46,200	+73.4	16,991	11,772	-30.7	43,631	57,972	+32.8
Arctic Grayling	18,709	18,945	+1.6	12,010	16,205	+34.9	30,7:9	35, 50	+14.4
Walleye	14,193	28. 29	+98.2	8, 31	5,602	-31.0	22,324	33,731	51.0
Whitef sh	8,021	NA	ı	800	a <b>N</b>	I	al 851	NA	I
Arctic Char	6,198	22,727	+266.8	2,529	4,635	+83.3	8,727	27,362	+213.5
Other	6,802	16,724	+145.9	611	1018	9.99	7,413	17,712	138.9
TOTAL SPECIES	104,365	159,873	+52.9	64,481	68,677	+6.5	168,846	228,550	+35.4
Aver/angler Aver/angler day	23.9	28.3	+18.4	10.2	8.1	-20.6	15.8 1.6	16.3	+3.2

262 3

TABLE A4. Comparison of direct expenditures made by active anglers in the Northwest Territories, 1975<sup>a</sup> and 1980.

Expenditure Category	Res 1975	Kesident 1980	Nonre 1975	Nonresident 1980	otal 1975	a l 1980
	•	s	•	<b>↔</b>	₩.	s
Package Deals	38,036	177,067	2,446,767	6,285,119	2,478,803	6,462,186
Food and Lodging	200,179	324,144	359,514	615,817	559,693	939,961
Transportation	323,203	687,288	871,035	504,421	1, 94,238	1,191,709
Fishing Services	20,611	<b>\$ 851</b>	0≥ 947	325.632	21.558	396.483
Fishing Gear	262,854	295,858	154,393	167,372	417,247	463,230
Other	22,162	9,664	79,002	325,346	101,164	335.00
TOTAL	867,045	1,564,872	4,005,658	8,223,707	4,872,703	9,788,579

<sup>&</sup>lt;sup>a</sup> Due to major changes in expenditures, patterns for both residents and nonresidents, no percentage changes are presented.

TABLE A5. Comparison of major angler purchases and investments attr butable in whole or in part to angling within the Northwest Territories, 1975 and  $1980^{\rm a}$ .

	Resident	lent	Nonresident	dent	Total	
Species	1975	1980	1975	1980	1975	1980
	\$	<b>S</b>	<b>~</b>	<b>∽</b>	<b>∽</b>	\$
Fishing Gear	$31,9\infty$	46,462	500	15,947	32. ∞	65,409
Boats, Motors and Related Eqxipment	478,100	1,482,29≤	0	0.285	478, 1 <del>00</del>	70,285
Campers and Related Equipment	454.5	2 0,552	2.9∞	9.005	457,4∞	219,557
Spe <ia td="" vehicles<=""><td>0</td><td>922,782</td><td>0</td><td>0</td><td>0</td><td>922. 782</td></ia>	0	922,782	0	0	0	922. 782
C⊄tages and Land	0	188.329	0	34,627	0	222,956
Other It≤ms	20.400	51,139	0	16,009	20, 4∞	67. 48
TOTAL	1,084,900 248.89	2,901,560 514.83	3,100 0.49	<b>145,873</b> 17.35	1,088,000 101.91	<b>3,047,433</b> 216.98

Comparison of boating characteristics, 1975-80, for residents  $\lhd$  Northwest Territories who held 1980 angling licences. TABLE A6.

3 5 3 4 5 5 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6		66	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		980	<b>%</b>
Number	1,805	2768	+53,4
Market Value (\$)	2.037,550	6.034,545	.196.2
Days Recreation	31,478	58,889	+86.2
Days Fishing	18,367	26,891	46.
Fishing as a % of Recreation	58.3	45.7	- 2 <b>1</b> - 2

APPENDIX B

METHODOLOGY

## **METHODOLOGY**

The 1980 survey of **sportfishing** was the second survey carried out by the federal Department of Fisheries and Oceans. The survey formed part of the quinquenniel surveys of **sportfishing** in Canada which began in 1975 and cover all jurisdictions in Canada. Due to the varying nature of licensing regulations across Canada, the methodology used was developed on the basis of regulations in the jurisdiction under study. The purpose of this section is to describe the approach used in the Northwest Territories.

### I. SAMPLING METHODOLOGY

All anglers in the Northwest Territories 16 years of age and older, require an angling licence. Records for 1980 licence sales were used as the frame for selecting the required sample. Although the receipts for all licence sold had not been received by December, 1980, it was agreed that there were sufficient returns in each category (approximately 80-85%) to allow for a representative sample of anglers for the survey.

The licensing files were stratified by licence-type and origin. For each stratum, a systematic random sample of licence holders was drawn resulting in a total of 2,000 prospective respondents.

### II. MAILING

All mailing operations were handled by the staff of the Fisheries Division. Questionnaires, covering letters and postage-paid return envelopes were mailed during the second week of January, 1981. Two follow-up mailings to nonrespondents were conducted after six and twelve weeks from the original mailing. Questionnaires returned by April 30, 1981 were used in the analysis of the survey. The useable return rate from three mailings for residents was 52% and for nonresident anglers was 86%.

#### III. CODING. EDITING AND DATA CAPTURE

These operations were conducted by staff hired by the Department of Fisheries and Oceans in Ottawa. Particular emphasis was placed on the quality of the information received and the degree of substitution found. Any questionnaires which were inconsistent, incomplete or answered by someone other than the person named on the questionnaire were discarded as <code>unuseable.</code> Questionnaires were key-punched and verified by staff at Dominion Computer Support Services.

### IV. DATA PROCESSING AND ESTIMATION PROCEDURES

All data processing was performed by staff of the Surveys Unit, Department of Fisheries and Oceans, Ottawa. There were a number of distinct procedures used to derive the estimates contained in this report and each is described below. Where necessary, cautionary notes concerning use of specific data are included. All data processing was performed using the Statistical Package for the Social Sciences (SPSS) Version 9.0.

## A. Editing and Updating

After receipt of the tape containing the raw data, an SPSS system file was created. These data were then edited to assess keypunch errors, inconsistencies and improper coding. All errors were corrected and a new file created.

Included in the update procedure was the creation of aggregated data on each questionnaire in order to provide estimates of activity patterns, area estimates and totals as requested by the Territories.

## B. Weighting

Two weighting procedures were used to develop estimates for this report.

First, all estimates for angler profiles, activity, harvest, preferences and other angler-related data were produced by calculating a respondent weight in each stratum. The stratum weights were developed using an inverse proportional weighting procedure, that is, each stratum population was divided by the appropriate stratum sample. No adjustments were made for

nonresponses. Although biases may be present, no significant differences were found when comparing the results of individual mailings on such variable as average effort and average expenditures.

Second, estimates of investment, direct expenditures, income and activity of unlicensed anglers were derived using household weights. These weights were calculated by dividing the respondent weights by the number of licensed anglers in the household. The number of licensed anglers was determined from responses given in the household profile question.

### c. Treatment of Partial Responses

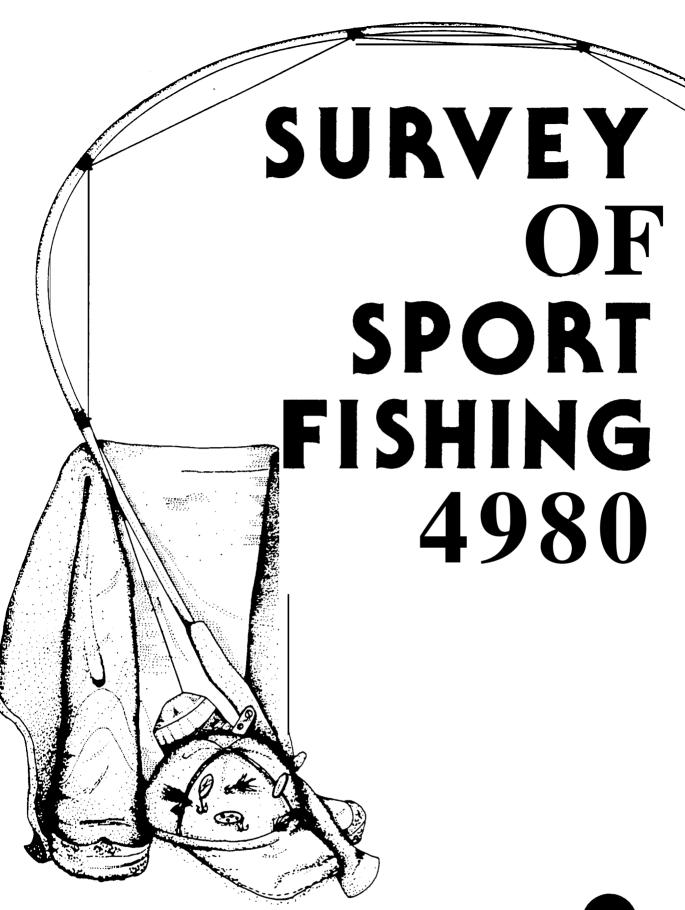
Where possible, stratum averages were used to adjust for partial responses in order to obtain population estimates. In the case of residents, substitution of cell averages was further based on their region of residence. Although it is recognized that some error may be incurred using this procedure, the number of cases requiring such substitution was less 0.5%.

#### v. **RELIABILITY**

Although no estimates of reliability are provided in this report, coefficients of variation of the mean were calculated for such variables as angler effort, harvest and expenditures. At the territorial level, the coefficients calculated were less than 8% at one standard deviation indicating a high degree of reliability. Estimates at area levels had higher coefficients of variation and judgement of their usefulness is left to the reader.

## APPENDIX C

# QUESTIONNAIRES USED IN 1980



Government Of Canada Fisheries and Oceans

Gouvernement du Canada Pêches et Océans Northwest
Territories Renewable Resources

# SECTION A YOUR PERSONAL FISHING ACTIVITIES

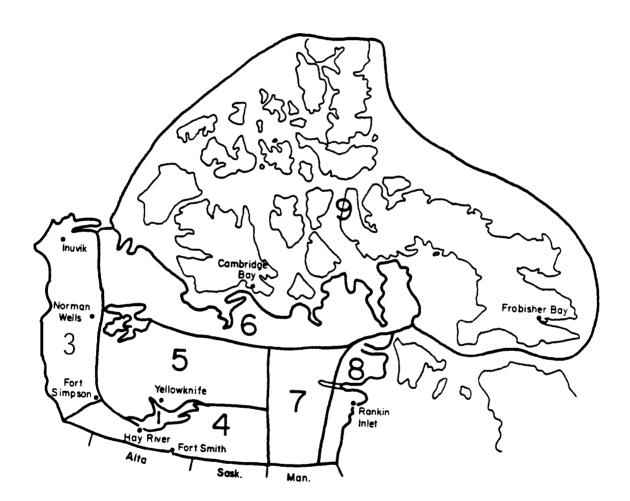
١.	Did you fish for sport in the Northwest Territories in 1980? (Include ice fishing)	
	Yes No If NO, please go to question 5, page 12.	
2.	Would you please indicate the number of days you spent fishing each month in the Northwest Territories in 1980. A "day" is all or any part of a day fished.	
	Jan	
	Feb May Aug Nov	
	Mar June Sept Dec	
3.	Did you catch any fish in the Northwest Territories in 1980?  Yes No  If YES, please indicate below:	
	(a) the number of each species you caught and kept in 1980 in the Northwest Territories. Please add more species names as required.	
	Species Number Caught Number Kept	
	Lake trout  Northern pike	
	Walleye	
	Arctic grayling	
	Arctic char	
	Inconnu	
	Other:	
	Other.	
	<del></del>	
	<del></del>	
	(b) please estimate the total weight of the fish you kept. lbs	
	(c) what percentage of the above was:	
	eaten by your household W	
	given to others <b>%</b>	
	other uses <b>%</b>	

4. We would like to know more about where you fished and what you caught in the different regions of the Northwest Territories. The map below divides the Territories into 9 geographical regions. For those regions in which you fished, please turn to more detailed maps (one for each region) on the following pages and provide as much information as you can remember about your fishing experiences.

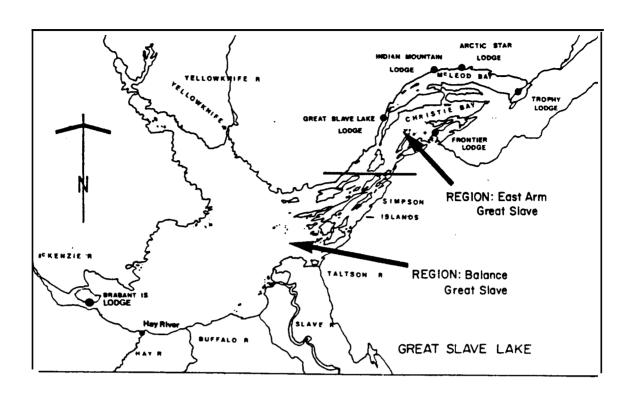
The regions of interest are:

- 1 Great Slave Lake (lake only)
- 2 Great Bear Lake (lake only)
- 3 Mackenzie River and Delta
- 4 Hay River Fort Smith area
- 5 Yellowknife area

- 6 Northern coastal Char areas
- 7 District of Keewatin (inland)
- 8 Hudson Bay coastal Char area
- 9 District of Franklin Char areas

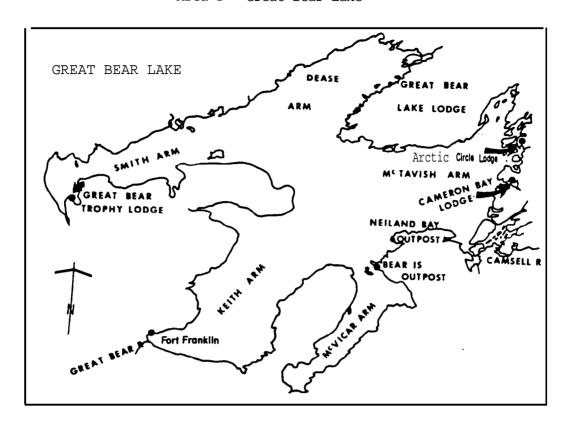


Area 1: Great Slave Lake



4a) Please indicate the days fished, the number caught and kept for each species on Great Slave Lake proper. Region: East Arm Great Slave Lake Days fished in 1980: Species Number Caught Number Kept Lake trout Northern pike Walleye Arctic grayling Other: Reai on: Bal ance Great Slave Lake Days fished in 1980: Number Caught Number Kept Species Lake trout Northern pike Walleye Arctic grayling Other:

Area 2: Great Bear Lake

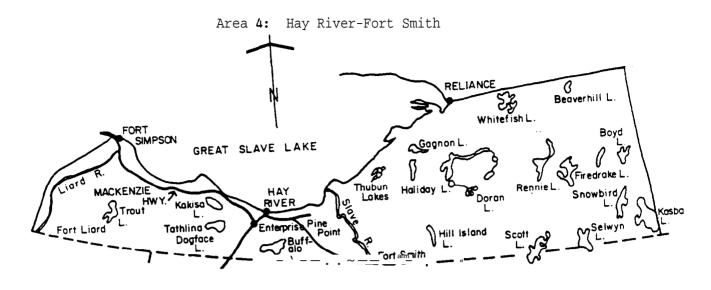


4b) Please indicate the days fished, the number caught and kept for each species on Great Bear Lake proper.

Area 2: Great Bear Lake		
Days fished in 1980:		
Species	Number Caucht	Number Kept
Lake trout		
Northern pike		
Arctic grayling		
Walleye		
Other:		

Mackenzie -	5 -
	Area 3: Mackenzie River and Delta
Dempsier Hwy.  Arctic Red River	4C) Please provide the names of the waters fished in this area, the number of days fished and the number caught and kept for each species.
	Lake/River:
<b>S</b> \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Days fished in 1980:
Fort	Species Number Caught Number Kept
Good Hope Norman Wells	Lake trout  Northern pike  Arctic grayling  Walleye  Other:
Wrigley	Lake/River:  Days fished in 1980:  Species Number Caught Number Kept
	Lake trout
	Northern pike
Fort Simpson	Arctic grayling
	Walleye
\	Other:
Lake/River:	Lake/River:
Days fished in 1980:	Days fished in 1980:
Species Number Caught Number Kept	Species Number Caught Number Kept
Lake trout	Lake trout
Northern pike	Northern pike
Arctic grayling	Arctic <b>grayling</b>

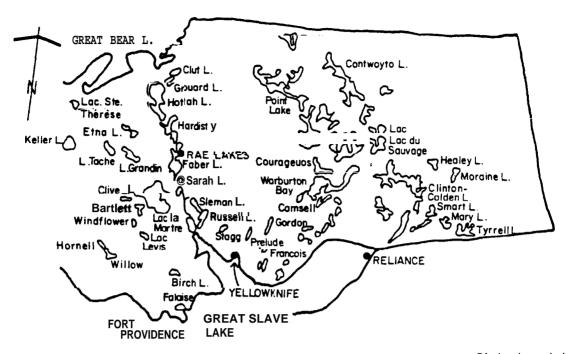
Walleye Walleye
Other: Other:



4d) Please provide the names of the waters fished in this area, the number of days fished and the number caught and kept for each species.

Lake/River:					Lake/River:				
Days fished in 1	980:		_		Days fished in 19	980:			
Species	Number	Caught	Number	Kept	Species	Number	Caught	Number	Kept
Lake trout					Lake trout				
Northern pike	-				Northern pike				
Walleye					Walleye				
Arctic grayling					Arctic grayling				
Rainbow trout					Rainbow trout				
Other:					Other:				
Lake/Ri ver:					Lake/Ri ver:				
Days fished ${in}$ 1	980:		-		Days fished in 19	980:			
Species	Number	Caught	Number	Kept	Species	Number	Caught	Number	Kept
Lake trout					Lake trout				
Northern pike					Northern pike				
Walleye					Walleye				
Arctic grayling					Arctic grayling				
Rainbow trout					Rainbow trout				
Other:			1		Other:				
		_							
					<del></del>				

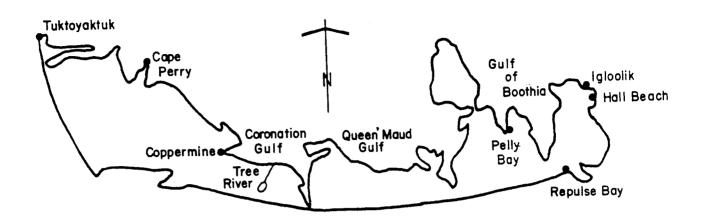
Area 5: Yellowknife Area



4e) Please provide the names of the waters fished, the number of days fished and the number caught and kept for each species.

Lake/River:			_		Lake/River:				
Days fished in 1 980:		•		Days <b>fished</b> in 1980:					
Species	Number	Caught	Number	Kept	Species	Number	Caught	Number	Kept
Lake trout					Lake trout				
Northern pike					Northern pike				
Walleye					Walleye				
Arctic grayling					Arctic <b>grayling</b>				
Other:					Other:				
Lake/River: Days fished in 1 Species		Caught	Number	Kept	Lake/River: Days fished in 19 Species		Caught	Number	Kept
Lake trout					Lake trout				
Northern pike					Northern pike				
Walleye					Walleye				
Arctic grayling					Arctic grayling				
Other:					Other:				

Area 6: Northern Coastal Char Fisheries



4f) Please provide the names of the waters fished in this area, the number of days fished and the number caught and kept for each species.

1980:	Caught	Number	<u>Kept</u>
	Caught	Number	Kept
			 ,
			, 
1980: Number	Caught	Number	Kept
g			
1*		g	g

## Area 7: District of Keewatin Inland

4g) Please provide the names of the waters

fished in this area, the number of days fished and the number caught and kept lan Colder L. for each species. Lake/River: Deep Rose L. Days fished in 1980: Species Number Caught Number Kept ₩hitehills:I Lake trout Northern pike Walleye Arctic grayling Other: \_\_\_\_\_ Dubawnt Tulemaiu Lake/River: Days fished in 1980: Species Number Caught Number Kept Lake trout Ennodoi Northern pike Walleye Edehon Arctic grayling Lake/River: Lake/River: Days fished in 1980: Days fished in 1980: Species Number Caught Number Kept Species Number Caucht Number Kept Lake trout Lake trout Northern pike Northern pike Walleye Walleye Arctic grayling Arctic grayling Other: Other:

Area 8: Hudson Bay Coastal Char Fisheries

Repulse Bay	4h) Please provide the names of the war fished in this area, the number of fished and the number caught and kee for each species.  Lake/River:  Days fished in 1980:	days
Wager Southampton Island	Species Number Caught Number	Kept
Chesterfield Inlet	Arctic char	
Ronkin HUDSON Inlet BAY  Cove	Lake/River:  Days fishedin 1980:  Species Number Caught Number	Kept
/	Arctic char	
Eski mo	Arctic grayling	
Point	Lake trout	
\ \	Northern pike	
	Other:	
_		
Lake/Ri ver:	Lake/River:	
Days fished in 1980:	Days fished in 1980:	
Species Number Caught Number Kept		Kept
Arctic char	Arctic char	
Arctic grayling		
Lake troutNorthern pike		
Wall ave	Northern pike Walleye	
Othor:	Other:	
other.		

Area 9: District of Franklin Char Fisheries



4i) Please provide the names of the waters fished in this area, the days fished and the number caught and kept for each species.

Lake/River:			_		Lake/River:					
Days fished in 1	980:		_		Days fished in 1980:					
Speci es	Number	Caught	Number	Kept	Species		Number	Caught	Number	Kept
Arctic char					Arctic char					
Arctic grayling					Arctic gray	ling				
Lake trout	-				Lake trout					
Northern pike	-				Northern pik	ce				
Walleye					Walleye					
Other:					Other:					

First	Second	Third	
Did you fish for	sport in the Northwes yes, please mark the	st Territories in a	
1975 1976	1977 19	78 1979	_
Did you fish for	sport OUTSIDE the Nor	thwest Territories	in 1980?
Yes No			
If yes, please ir	ndicate below:		
(a) The name(s) (days fished were fishing	of the province, terri by water type and the for.	tory, state or cou e name of any partic	ntry fished, the cular species you
9		Days Fished	Particular Species Fished For
		Fresh Salt	
		<del></del>	
(b) <b>The</b> names of (Superior, Fished.	any National Parks <b>ir</b> Huron, Ontario, etc) w	n Canada or any of the character and and the character and the cha	the Great Lakes I the number of days
National Parks	Days Fished	Great Lakes	Days Fished
National Parks			
National Parks			
National Faiks			
National Faiks			
National Faiks			

# SECTION B EXPENDITURES ON **SPORTFISHING** BY YOU

## AND/OR MEMBERS OF YOUR HOUSEHOLD

8.	investments in	N.W.T. in	1980 for purpo	d make any major oses relating <b>in</b> w nal vehicles, cott	hole or-part to
	YesNo				
	If yes, please o	describe t	he items below	w:	
	Item Purchased		Price	Percentage	used for <b>sportfishing</b>
			\$		x
			\$		x
			\$		
			\$		%
9.		r and equ	ipment owned	present market va and used by you an	alue of the nd members of your
			\$		
10.	all-inclusive s example lodge, f and so on, where	<pre>sportfishin ily-in fis e the price</pre>	<b>g</b> trips, toura <b>hing camps, go</b> ce includes tr	a or outings in N	
	Yes No	·			
	If yes, please	describe	the "package(s	)" below.	
	Type of Package (Please Check)		Number of Area Fished		your household Cost to household
	Lodge	( ) _			<u> </u>
	Outfitter	( ) _			
	Other Services	( )			

11.	belov	cluding major purchases, investment and package <b>tours p</b> w the amount of money you and/or members of your household s rtfishing purposes in N.W.T. in 1980:	
	1.	Lodging (hotel, motel, cabin, etc.)	\$
	2.	Campsite fees	
	3.	Food (restaurant, meals, groceries and beverages)	
	4.	Travel costs within N.W.T. (by car, air, u-drives, etc.)	
	5.	Boat rentals	
	6.	Fishing tackle and supplies (rods, reels, special clothing, etc.)	
	7.	Bait	
	8.	Household owned boats costs (gas, repairs, docking fees, etc.)	
	9.	Guide services	
	10.	Fishing licences, permits and access fees	
	11.	Taxidermy	
	12.	Other (please specify)	
12.		you or members of your household fished outside N.W.T. in 198 imate how much was spent elsewhere in Canada for sport fishing o:	
		\$ spent in other parts of Canada	

	SECTION C			
HOUSEHOLD	OWNERSHI P	0F	BOATS	

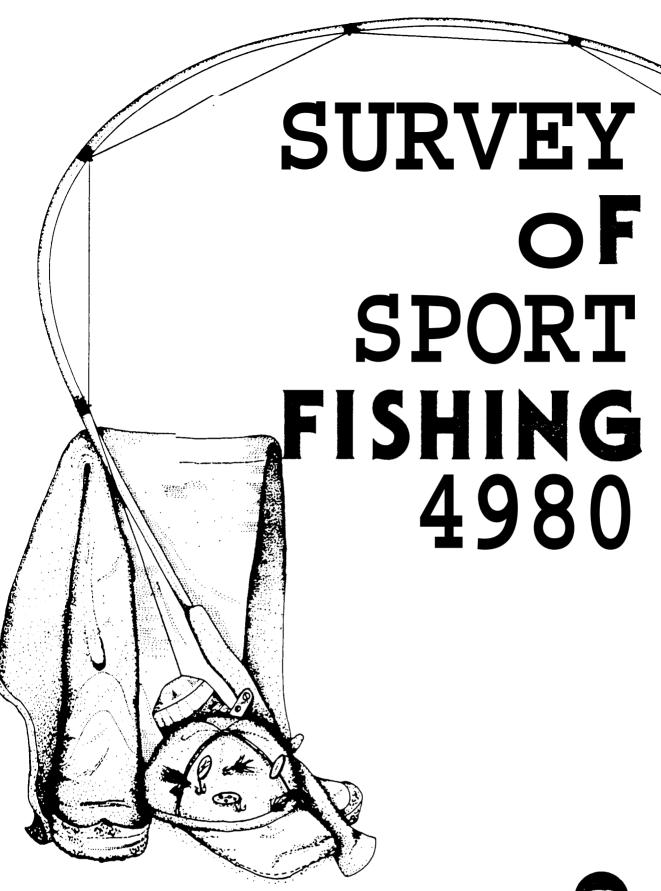
	HOUSEHOLD	OWNERSH	HP OF	BOATS					
13.	Howmany boats are owned by you or other recreational purposes?		ehold	which a	are u	sed fo	r <b>spo</b> i	rtfishir	ng
	boats (if none, plea	ase go t	o que	stion 1	16).				
14.	Please provide the following inf	ormation	n on y	your bo	ats:				
	(Type codes: 1. canoe, 2. rowbo	oat, 3. ard, 6.	outb inbo	oard, ard, 7	4. s	ailboa seboat	nt, , 8.	other)	
	<u>Characteristic</u>	Boat	1	Boat	2	Boat	3	Boat	4
	Туре		_		_		_		_
	Length (in feet)		ft		_ ft		_ ft		_ ft
	Horsepower (if applicable)		_ hp		_ hp		_ hp		_ hp
	Present market value	\$	_	\$	_	\$	_ \$	<u> </u>	_
	Days used for all recreational purposes in N.W.T. in 1980 (including sportfishing)		_		_		_		_
	Number of days used for sportfishing in N.W.T.		_				_		_
	Is the boat usually ( ✓ ): - kept moored								
	- transported by trailer		-						
	- carried by car-top								
	other								
15.	If any of your boats are usually	y kept m	oored	, where	e do :	you mod	or the	m?	
	P	LACE/HAR	BOUR						

SECTION D	
HOUSEHOLD PROFILE	

	To help us <b>analyse</b> information about			ded, we would	d appreciate some
		ALL ANSWE	RS ARE CONFID	ENTIAL	
16.	Person who comple	eted the quest	ionnaire:		
	Your age:	years	Your sex	: Male	Female
17.	Would you please your household.				
	Age	Sex Male Fen	nale		davs fished in in 1980
	1				
	2.				
	3				
	4				
	5				
	6				
	7				
	8		<u> </u>		
	9				
18.	We are interested sport fishermen of your assistance be income before taxed	n a national a y your checkir	nd internation	nal basis. W	We would appreciate
	Prefer not to answ	wer			
	1. under 5,000		7.	30,000 - 34,	999
	2. 5,000 - 9,9	99	8.	35,000 - 39,	999
	3. 10,000 - 14,99	99	9.	40,000 - 44,	999
	4. 15,000 - 19,99	99	10.	45,000 - 49,	999
	5. 20,000 - 24,99	99	11.	Over 50,000	
	6 25 000 - 29 99	aa			

SECTION E
YOUR COMMENTS
You are invited to comment on your fishing experiences and fishing opportunities in N.W.T. (for example, water quality, costs, access, environment) hospitality, services, regulations, problems, etc.).

YOUR COOPERATION AND ASSISTANCE ARE APPRECIATED



Gov Fish

Government of Canada Fisheries and Oceans Gouvernement du Canada Pêches et Océans



	:	SECTION A	
	YOUR PERSONAL	L FISHING ACTIVITIES	
Did you fi	sh for sport in the N	Jorthwest Territories in	1980? (Include :
Yes	No If NO, ple	ease go to question 5, pag	ge 12.
		umber of days you spent f 1980. A "day" is all or	
Jan	April	July	0ct
Feb	May	Aug	Nov.
Mar	June	Sept	Dec.
(a) the num	ease indicate below: ober of each species yest Territories. Ple	you caught and kept in 19 ease add more species nam	980 in the es as required.
(a) the num	mber of each species	you caught and kept in 1	980 in the
(a) the num	mber of each species yest Territories. Pla	you caught and kept in 19 ease add more species nam Number Caught	980 in the es as required.  Number Kept
(a) the num	mber of each species yest Territories. Ple	ease add more species name	es as required.
(a) the num Northw Spec	mber of each species yest Territories. Ple	ease add more species name	es as required.
(a) the num Northw Spec	mber of each species rest Territories. Place eies errout ern pike	ease add more species name	es as required.
(a) the num Northw Spec Lake t North Walley	mber of each species rest Territories. Place eies errout ern pike	ease add more species name	es as required.
(a) the num Northw Spec Lake t North Walley	nber of each species rest Territories. Place rout ern pike re grayling	ease add more species name	es as required.
(a) the num Northw Spec Lake t North Walley Arcti	mber of each species rest Territories. Place record	ease add more species name	es as required.
(a) the num Northw Spec Lake t North Walley Arctic	mber of each species rest Territories. Place record	ease add more species name	es as required.
(a) the num Northw Spec Lake t North Walley Arctic	mber of each species rest Territories. Place record	ease add more species name	es as required.
(a) the num Northw Spec Lake t North Walley Arctic	mber of each species rest Territories. Place record	ease add more species name	es as required
(a) the num Northw Spec Lake t North Walley Arcti Arctic Inconn Other:	mber of each species rest Territories. Places crout ern pike re c grayling char	ease add more species name  Number Caught	es as required.  Number Kept
(a) the num Northw  Spec Lake to North Walley Arctic Arctic Inconn Other:	mber of each species rest Territories. Places crout ern pike re c grayling char	ease add more species name  Number Caught	es as required.  Number Kept

given to others

other uses

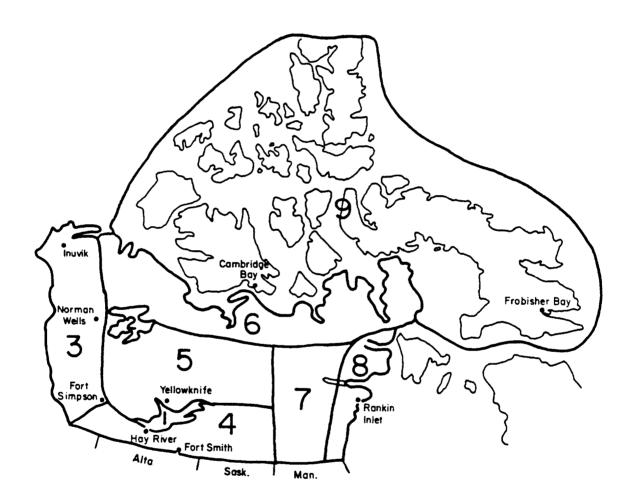
\_\_\_\_\_ W

4. We would like to know more about where you fished and what you caught in the different regions of the Northwest Territories. The map below divides the Territories into 9 geographical regions. For those regions in which you fished, please turn to more detailed maps (one for each region) on the following pages and provide as much information as you can remember about your fishing-experiences.

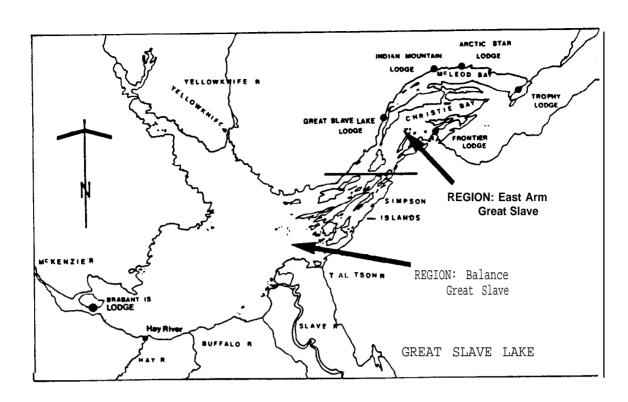
The regions of interest are:

- I Great Slave Lake (lake only)
- 2 Great Bear Lake (lake only)
- 3 Mackenzie River and Delta
- 4 Hay River Fort Smith area
- 5 Yellowknife area

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- 7 District of Keewatin (inland)
- 8 Hudson Bay coastal Char area
- 9 District of Franklin Char areas

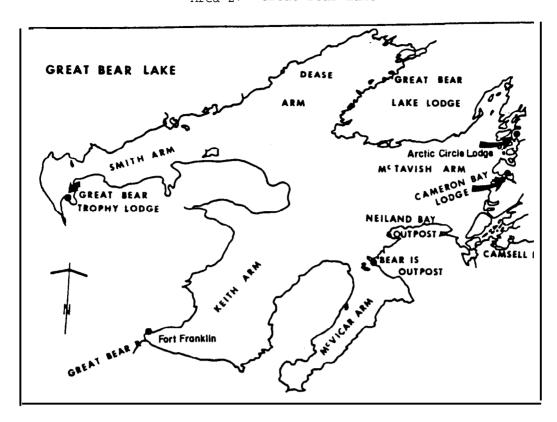


Area 1: Great Slave Lake



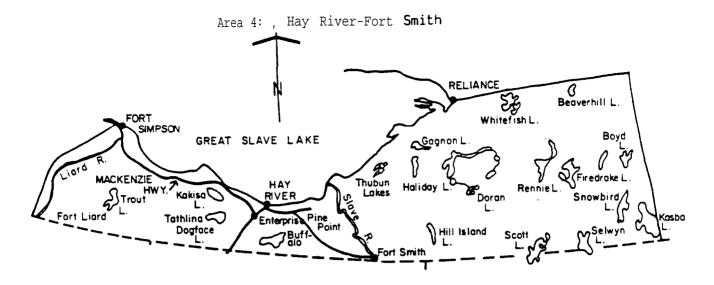
4a)Please indicate the days fished, the number caught and kept for each species on Great Slave Lake proper. Region: East Arm Great Slave Lake Days fished in 1980: \_\_\_\_\_ Number Kept Number Caught Species Lake trout Northern pike Walleye Arctic grayling Other: \_\_\_\_ Region: Balance Great Slave Lake Days fished in 1980: Number Kept **Number Caught** Species Lake trout Northern pike Walleye Arctic grayling Other:

Area 2: Great Bear Lake



4b )	Please indicate the days fished, the species on Great Bear Lake proper.	he number caught and kept	for each
	Area 2: Great Bear Lake		
	Days fished in 1980:	-	
	Species	Number Caught	Number Kept
	Lake trout		
	Northern pike		
	Arctic grayling		
	Walleye		
	Other:		

Mackenzie Bay	5 -	
	Area 3: Mackenzie Riv	er and Delta
Demosier Hwy.  Arctic Red River		e names of the waters ea, the number of days umber caught and kept
	Lake/River:	
( ( )	Days fished in 1980:	
7 \\ \ \ \	Species Num	nber <b>Caught</b> Number Kept
Fort Good Hope	Lake trout	
<i>\\</i>	Northern pike	
Norman Wells	Arctic <b>grayling</b>	
A. Wells	Mallorro	
	Other:	
)		
(	Lake/River:	
Wrigley	Days fished in 1980:	
	_Species Num	ber Caught Number Kept
	Lake trout	
Fort Simpson		
	Walleye	
\	Other:	
Lake/River:	Lake/River:	
Days fished in 1980:	Days fished in 1980:	
Species Number Caught Number Kept	Species Num	ber Caught Number Kept
Lake trout	Lake trout	
Northern pike	Northern pike	
Arctic grayling	Arctic <b>grayling</b>	
Walleye	Walleye	
Other:	Other:	



4d) PI ease provide the names of the waters fished in this area, the number  $^{\circ f}$  days fished and the number caught and kept for each species.

Lake/Ri ver:					Lake/River:		
Days fished in 3	1980:				Days fished in 1	980:	
Species	Number	Caught	Number	Kept	Species	Number	Caught Number Kept
Lake trout					Lake trout		
Northern pike					Northern pike		
Walleye					Walleye	-	
Arctic grayling					Arctic grayling	-	
Rainbow trout					Rainbow trout		
Other:					Other:		
Lake/River: Days fished in 1 Species		Caught	- Number	Kept	Lake/River:  Days fished in 1  Species		Caught Number Kept
Lake trout					Lake trout		
Northern pike					Northern pike		
Walleye					Walleye		
Arctic grayling					Arctic <b>grayling</b>		
Rainbow trout			-		Rainbow trout		
Other:					Other:		

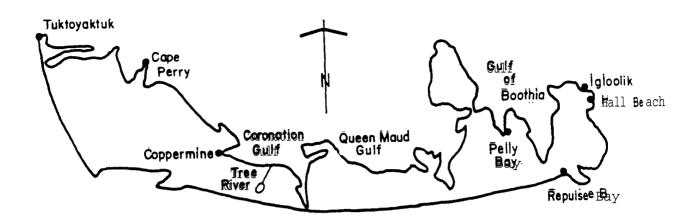
Area 5: Yellowknife Area



4e) Please provide the names of the waters fished, the number of days  ${f fished}$  and the number caught and kept for each species.

Lake/River:			_		Lake/River:				
Days fished $\overline{\text{in }1}$	980:		-		Days fished in 1	980:			
Species	Number	Caught	Number	Kept	Species	Number	Caught	Number	Kept
Lake trout					Lake trout				
Northern pike					Northern pike				
Walleye					Walleye	-			
Arctic grayling					Arctic grayling				
0+1					Other:				
Lake/River: Days fished in 19	980:				Lake/River: Days fished in 1	980:			
Species	Number	Caught	Number	Kept	Species	Number	Caught	Number	Kept
Lake trout					Lake trout				
Northern pike					Northern pike				
Walleye					Walleye				
Arctic grayling					Arctic grayling				
Other:					Other:				
·									

Area 6: Northern Coastal Char Fisheries



4f) Please provide the names of the waters fished in this area, the number of days fished and the number caught and kept for each species.

Lake/River:			_		Lake/River:				
Days fished in 1	980:				Days fished in 1	980:			
Species	Number	Caught	Number	Kept	Species	Number	Caught	Number	Kept
Arctic char					Arctic char				
Arctic grayling					Arctic grayling				
Lake trout					Lake trout				
Northern pike					Northern pike				
Walleye					Walleye				
Other:					Other:				
Lake/River:					Lake/River:				
Days fished in 1	980:		,		Days fished in 19				
Species	Number	Cauaht	Number	KeDt	Species	Number	Caught	Number	Kept
Arctic char					Arctic char				
Arctic grayling					Arctic grayling				
Lake trout					Lake trout				
Northern pike					Northern pike				
Walleye					Walleye				
Other:					Other:				

## Area 7: District of Keewatin Inland

4g) Please provide the names of the waters fished in this area, the **number of** days fished and the number caught and kept

○ lee Celded	for each spec	eies.			
Garry L. Garry L.  Pelly  Deep Rose L.  L.	Lake/River: Days fished in 1	.980:		_	
~   /	Species	Number	Caught	Number	Kept
Beverly Aberdeen Whitehills L.  Schultz L. Baker L.  Wharton Mallery Princess	Lake trout Northern pike Walleye				
Wharton Mulery Princess  L. Thirty  Tebe Mile L.  L. Tulemalu Kaminurel  L. I L.	Arctic grayling Other:				
Nowleye  Kamilukuak  Nowleye	Lake/River:				
North CHenik L.	Species	Number	Caught	Number	Kept
South Henik L.	Lake trout				
Ennadai Tatinnai Ray L.	Northern pike Walleye				
Nueltin Edehon L. L.	Arctic grayling Other:				
Lake/River:	Lake/River:				
Days fished in 1980:	Days fished in 1	980:			
Species Number Caught Number Kept	Species	Number	Caught	Number	Kept
Lake trout	Lake trout				
Northern pike	Northern pike				
Walleye	Walleye				
Arctic grayling	Arctic grayling				
Other:	Other:				

Area 8: Hudson Bay Coastal Char Fisheries

Repulse Bay Southampton	4h) Please provide fished in thi fished and the for each spectage.  7 Lake/River:	s area, ne numbe ies.	the num r caught	nber of and ke	days
Wager Bay Southampton Island	Days fished in 1			_	
coral Harb	our Species			- Number	Kept
Chesterfield   Chesterfield   Inlet   Inlet	Arctic char Arctic grayling Lake trout Northern pike Walleye				
Inlet HUDSON BAY	Other:				
Withdise Cowe	Lake/River:	980:			
I Eskimo	Species	Number	Caught	Number	Kept
Point	Arctic char Arctic grayling Lake trout Northern pike Walleye Other:				
Lake/River:	Lake/River:				
Days fished in 1980:	Days fished in 1				
Species Number Caught Number Kept		Number	Caught	Number	Kept
Arctic char	Arctic char				
Arctic grayling	Arctic <b>grayling</b>				
Lake trout	Lake trout				
Northern pike	Northern pike				
Walleye Other:	Walleye Other:				

Craig Harbour Devon Is BANKS Inlet Broughton Is. BAFFIN Sachs Harbour Frobisher Воу Holmono na iss. AMUNI**DSEN** GULF IS. GULF JŅF

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Haven

BOOTH IA

Cape Dorset

HUDSON STRAIT

Area 9: District of Franklin Char Fisheries

4i) Please provide the names of the waters fished in this area, the days fished and the number caught and kept for each species.

Bay

**CORONATION** 

**GULF** 

Lake/River:		_		Lake/River:			_	
Days fished in 1	980:	_		Days fished in 1980:				
Species	Number Caught	Number	_Kept_	Species	Num	ber Caught	Number	Kept
Arctic char				Arctic char				
Arctic grayling				Arctic <b>gray</b>	ling			
Lake trout				Lake trout				
Northern pike				Northern pil	ке <u></u>			
Walleye				Walleye				
Other:				Other:				

First	Second	Third	
Did you fish for sp listed below? If y	port in the Northwe es, please mark th	st Territories in an e appropriate years v	y of the years with an "x".
1975 1976	1977 1	978 1979	<del>_</del>
Did you fish for sp	port OUTSIDE the No.	rthwest Territories	in 1980?
Yes No	<u></u>		
If yes, please indi	cate below:		
	y water type and t	ritory, state or cour he name of any part	icular <b>species</b> YOU
Where you Fished		Days Fished	Particular Species Fished For"
		Fresh Salt	
(Superior, Hur		Fresh Salt  in Canada or any of where you fished and	
(Superior, Hur fished.	ron, Ontario, etc)	in <b>Canada or any of</b> where you fished and	the number of days
(Superior, Hur	ron, Ontario, etc)		
(Superior, Hur fished.	ron, Ontario, etc)	in <b>Canada or any of</b> where you fished and	the number of days
(Superior, Hur fished.	ron, Ontario, etc)	in <b>Canada or any of</b> where you fished and	the number of days

# SECTION B EXPENDITURES ON SPORTFISHING BY YOU AND/OR MEMBERS OF YOUR HOUSEHOLD

8.	investments in N	.W.T. ir	n <b>1980</b> for purpo	old make any major oses relating in w nal vehicles, cott	hole or part to
	Yes No				
	If yes, please de	scribe	the items belo	v₩:	
	Item Purchased		Price	Percentage	used for sportfishing
			\$	-	%
			\$	_	<u>*</u> *
			\$	_	
			\$	_	w
9.	all-inclusive speexample lodge, fl and so on, where	ortfishi y-in f the pr	ing trips, tour ishing camps, g ice includes tr	old purchase any "ps or outings in No going out on guide ransportation, plus l, tackle, bait, et	or charter boats, s a wide range of
	Yes No				
	If yes, please de	escribe	the 'package(s	s)" below.	
	Type of Package (Please Check)			For you and Number of anglers	your household  Cost to household
	Lodge	)			
	Outfitter	)			_
	Other Services (	)			

		- 1 4 -	
10.	belo	cluding major purchases, investments and package tours please eow the amount of money you and/or members of your household spertfishing purposes in N.W.T. in 1980:	
	1.	Lodging (hotel, motel, cabin, etc.) \$ _	
	2.	Campsite fees	
	3.	Food (restaurant, meals, groceries and beverages)	
	4.	Travel costs within N.W.T. (by car, air, u-drives, etc.)	
	5.	Boat rentals -	
	6.	Fishing tackle and supplies (rods, reels, special clothing, etc.)	
	7.	Bait _	
	8.	Household owned boats costs (gas, repairs, docking fees, etc.)	
	9.	Guide services _	
	10.	Fishing licences, permits and access fees	
	11.	Taxidermy	
	12.	Other (please specify)	
11.		you or members of your household fished <u>outside</u> N.W.T. in 1980, imate how much was spent elsewhere in Canada for sportfishing notes.  \$ spent in other parts of Canada	
		spelic ili other parts or canada	
		SECTION C	
100	\ II.o.	TRIP INFORMATION	
12a	) но	ow many trips did you make to N.W.T. in 1980?	
		trips.	
12b	) Ho	w many days in total did you spend in N.W.T. in 1980 for all re	asons?
		days.	
13a)	On	how many of your trips to N.W.T. in 1980 did you fish?	
		trips.	

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13b)	) For how many of these trips was	fishing:
		Number of trips
	- your main reason for visiting	N.W.T
	a secondary reason	
	- decided upon after arrival	
14.	What type of accommodation did you use	on your trips to N.W.T. in 1980?
	Type of Accommodation	Trips on Trips on which which you fished you did not fish (please check)
	Friends and relatives	
	In tent or trailer	
	Fishing lodge or camp	
	Other commercial lodging	
	Other (please specify)	
15.	How many persons in your househ	old held N.W.T. fishing licences in 1980?
	_	
16.	How would you rate fishing in N.	W.T.?
	Excellent	Fair
	Very Good	Poor
	Good	
17.	Do you intend to fish in N.W.T.	in the future?
	Yes	No
18.	If there had been no fishing opposite the state of the st	portunities in N.W.T., would you have:
	stayed a shorter time	( <b>✓</b> )
	substituted other activities	
	not come at all	

SECTION D	
HOUSEHOLD PROFILE	

	To help us <b>analyse</b> information about y			ided, we would	appreciate some
		ALL ANS	SWERS ARE CONFI	IDENTIAL	
19.	Person who complete	ed the ques	tionnaire:		
	Your age:	years	Your sex	x: Male	Female
20.	Would you please pryour household. (	rovide the	following info	ormation about	other members of
	Age _	Sex Male I	Female •		days fished in in 1980
21.	1	a national your check	l and internat:	ional basis. V	We would appreciate
	Prefer not to answ	er			
	1. under 5,000		7.	. 30,000 - 34,	999
	2. 5,000 - 9,999	9	8	. 35,000 - 39	999
	3. 10,000 - 14,99	9	9	. 40,000 - 44	999
	4. 15,000 - 19,99	9	1	0. 45,000 - 49	999
	5. 20,000 - 24,99	9	11	1.Over 50,000	
	6. 25,000 - 29,99	9			

SECTION E YOUR COMMENTS
You are invited to comment on your fishing experiences and fishing opportunities in N.W.T. (for example, water quality, costs, access, environment, hospitality, services, regulations, problems, etc.).

YOUR COOPERATION AND ASSISTANCE ARE APPRECIATED



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Territories Economic Development and Tourism

July 11, 1985

## NOTE TO FILE

## Sale of Sport Fishing Licences

Sport fishing licence sales for the years 1981, 1982, 1983 and 1984 were analysed to give some indication of visitation and/or recreation activity in the N.W.T. To make this investigation valid it is assumed that sales efforts were constant throughout the years.

Sales were analysed and plotted:

- by year,
- by region of N.W.T.,
- by all N.W.T. totals,
- by resident and non-resident licences.

It is important to note that "resident" and "non-resident" refer to Canada - NOT the N.W.T. Therefore non-resident sales were essentially to U.S.A. citizens and resident sales were to provincial and territorial (including N.W. T. ) residents.

## Findings are:

- 1. For both types of licences, and as may be expected, Fort Smith Region is dominant in number of sales.
- 2. For non-resident licences the Keewatin region is significant in sales and other regions are minor.
- For non-resident licences, sales fell (in total and for all regions) dramatically from 1981 to 1982 and have stayed at about that level
- 4. For resident 1 icences, sales fell gradually from 1981, through 1982 to 1983 and rose considerably in 1984.

#### **Conclusions**

1. It is evident (from finding number 3) that U.S. visitation has declined in the past several years. This is in agreement with N.W.T. travel surveys and an abundance of information from the provinces and Tourism Canada.

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Government of the Northwest Territories, Yellowknife, N.W.T. Canada, X1A, 2L9 / Telex, 034-45528

2. Visitation by provincial residents is unknown (finding 4) since sales are combined with sales to N. W.T. residents. It does appear that sport fishing activity by provincial and N.W.T. residents combined declined from 1981, through 1982 to 1983 and then rose in 1984. One can only surmise that with an increasing N.W.T. population and commuting work force that the residual provincial component would have been stable or shown a small increase over the four year span.

The resident licence problem could be attacked by analysing the individual

addresses on the licences.

Keith **Thompson,**Program Development
and Research Advisor,

Tourism & Parks Division.

Attachment

P.S. 1980 Survey of Short Fixting in NWI provides additional data for 1980

- Heidents - 10,656

- non recidents - 4468

total 15,124

This flows I reinforcement of Company to them U.S. vin Latin 1980.

2/ Heinforcement of more or less constant resident sales from 1986 Mough 1983 (1984 vive).

		Lt. Smith Region	Sale of Non-resident Fishing Ligarces		 Keewath Kit meet
		· · · · · · · · · · · · · · · · · · ·			
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NOTE DE SERVICE .

<b>1</b>	All Regional Offices	SECURITY - CLASSIFICATION - DE SÉCURITÉ
7	Later Mandare	OUR FILEMOTRE RÉFÉRENCE
	Product Analyst (Outdoor)	YOUR FILENOTRE RÉFÉRENCE
OM DE	Product Development Branch Tourism Canada	DATE March 18, 1987
<u> </u>		

SUBJECT OBJET 1985 Survey of Recreational Sportfishing

Please find attached draft results of the above survey related to non-Canadian anglers. The Department of <u>Fisheries and Oceans</u> has especially prepared these tables for Tourism Canada from the survey's data base.

In May, the **survey** results should be finalized for all provinces/ territories. At that time, | will send you a copy of the national results as well as those pertaining to your province/territory. (These will contain information on the Canadian market as well.)

Monique Laurin-Dumas

Attachment

Distribution

John O'Neil - Whitehorse
Ken Bouchard - Vancouver
Charles Hatzipanayis - Winnipeg
Tom Hill - Edmonton
Andy Svetkov - Regina
Donald Marsan - Toronto
Suzy Ioualalen - Montreal
Anne Thompson - Halifax
Marlene Macke - St. John's
Rick Young - Charlottetown
André Lord - Moncton
Rae Bradford - Yellowknife

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TABLE 1 CHARACTERISTICS OF THE NORCANADIAN ANGLING POPULATION IN 1985, BY REGION OF ORIGIN

Region of Origin	No. of Anglers	Active Anglers	Active Males	Active Females
New England	11,301	11,167	10,050	1,117
Mid Atlantic	143,644	140,263	115,804	24,459
East North Central	302,840	295,325	242,329	52,996
West North Central	164,919	161,904	135,775	26,129
Mountain	26,08S	25,189	20,545	4,644
Pacific	89,645	86,418	69,075	17,343
South Atlantic	28,191	27,526	21,944	5,582
East South Central	8,382	8,383	7,267	1,116
West South Central	14,945	14.534	11,269	3,265
Other USA	2,964	2,785	2,071	714
Europe	1,914	1,778	1,617	161
Other	169	162	153	9
Total	795,202	775,434	637,899	137,535



NUMBER OF PISH CAUCHT BY NONCANADIAN ACTIVE ANGLERS BY SPECIES IN 1985, BY REGION OF ORIGIN

Region of Origin	Arctic Char	Arctic Grayling	Bass	Pike	Perch	Smelt	Salmon	Trout	Whitefish	n Welleye	Other	Total
New England	783	5,913	22,325	40,223	11,728	955	35,078	161,282		36,121	26,934	341,500
Mid Atlantic	2,646	3,338		1,467,634	2,243,402	73,834	28,931	195,824	48,212	1,214,810	1,982,444	9,134,561
East North Central	2,327	16,315		4,873,688	5,244,983	550,333	18,280	473,690	59,310	7,127,381	4,736,774	8
West North Central	1,530		411,383	2,742,259	334,642	0	19,340	248,883	4,436	4,206,359	161,343	
Mountain	1,405			491,415	29,791	0	64,980	97,128	795	178,540	74,074	971,595
Pacific	36,498			263,960	25,282	0	407,941	518,491	819	158,618	456,100	4
South Atlantic	1,752			385,727	232,097	0	11,618	62,578	4.688	458,143	225,760	-
East South Central	209			78,569	48,957	0	1,773	10,063	0	43,771	72,960	
West South Central	422		_	173,170	48,515	0	21,183	63,866	1,531	234,554	30,028	670,593
Other USA	1,519		_	4,670	565	0	3,929	25,384		4,643	5,679	51,373
Europe	583	2,731	14,064	48,428	17,665	0	3,058	6,672	1,116	13,858	1,846	110,021
Other	0	0	0	11	0	0	0	810	•	0		895
Total	49,674	49,674 102,294 =,054,	9,054,969	10,369,820	8,237,627	625,122	616,111	616,111 1,864,671	121.065 1	121.065 13,676,798	.773,950	48,692,101



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TABLE 3:		NUMBER OF	FISE	RETAINED BY	CANADIAN ACTIVE ANGLERS BY	CTIVE ANG	ERS BY	IN 1	985, BY RE	1985, BY REGION OF ORIGIN	IGIN	
Region of Origin	Arctic Char (	Arctic Grayling	Bass	Pike	Perch	Smelt	Salmon	Trout	Whiteflah	Whitefish Walleye	Other	Total
New England	131	376	6,310	27,053	4,941	955	21,882	113,392	14	28,616	1,304	211,034
Mid Atlantic	826	770	645,176	484,354	1,173,122	66,571	16,824	107,694	35,222	795,571	757,773	4,083,903
Rest Morth Central	376	2.295	788,990	1,265,339	3, 333, 155	550,333	11,273	187,169	29,131	3,005,095	3,037,299	12,210,455
West North Central	315	5,631	129,157	670,175	62,516		10,346	104,739	3,090	1,482,489	84,647	2,553,105
Montain	470	3,150	7.640	609.99	14,385	0	53,010	20,427	369	77,085	29,812	272,957
Pacific	18.039	4.489	10,265	42,021	20,561	0	321,151	268,377	265	41,154	194,190	920,512
South Atlantic	1.295	171	108,749	97,515	120,226	0	7,962	25,479	1,512	•	92,946	665,416
East South Central	60	533	25.014	21,867	17,606	0	1,686	6,187	0	24,004	53,051	149,956
West South Central	185	1.883	17,090	51,384	20,663	0	19,424	20,442	582	96,552	7,714	235,919
Other USA	1.082	1,319	174	195	21	0	2,611	7,798	0	2,597	2,762	18,559
Europe	583	2.655	3.341	8.117	5.829	0	688	4.879	906	3,276	417	30,691
Other	0	0	0	11	•	0	0	709	0	•	•	794
Total	23,310	23,872 1,741,906	1,741,906	2,734,706	2,734,706 4,773,025	617,859	466,857	867,292	71,091	5,765,400	4,267,983	21,353,301

TABLE 4: OVERNIGHT ACCOMODATION USSO BY NONCANADIAN ANGLERS IN CANADA IN 1985, BY REGION OF ORIGIN

Region of Origin	Friends / Relat ives	Tent/ Trailer	Cottages	Camping- Prov. Parks	Camping- Crown Land	Camping-Comm. Camp Ground	Fishing Lodge	Hotels/ Motels	Other	Total
New England	15,932	5,382	19,275	6,401	5,281	3,054	22,205	12,483	2,917	92.930
M1d Atlantic	123,356	72,714	359,656	49,075	10,338	55,217	340,087	252,69S	34,400	1,297,571
East North Central	14S,556	227,870	3S7,108	106,430	46,926	124,578	926,4S4	309,003	84,58S	2,361,543
West North Central	57,915	118,995	124,601	62,600	54,721	61,774	430,093	90,714	26,984	1,028,397
Mountain	24,925	29,227	30,361	21,337	6,016	44,320	40,310	32.029	15,326	243,S51
Pacific	58,476	96,649	111,649	52,909	24,703	177,456	133,685	100,829	122,2S5	87S,641
South Atlantic	38,513	18,832	96,103	13,97s	9,120	23,317	85,150	44,427	3,792	333,232
East South Central	5,S63	7,330	3,238	676	0	3,021	22,10s	12,556	743	55,535
West South Central	19,246	12,153	1s,s43	8,017	4,170	13,277	37,370	18,726	3,269	135,071
Other USA	2,790	3,412	3,952	2,003	1,189	73s	5,369	2,11.9	257	21,s2s
Europe	13,336	11,428	5,760	187	0	S95	7,601	1,325	56	40,5ss
Other	657	0	0	0	0	359	17	117	91	1,241
Total	509,565	603,992	1,160,576	323,613	162,464	508,006	2,050,479	S77,025	294,708	6,490,428



TABLE 5:	TRIP CHARACTERISTICS OF	STICS OF	CANAD AN ANGLE	TRS IN CANAD	CANAD AN ANGLERS IN CANADA IN 1985, BY REG ON OF ORIGIN	REC ON OF ORI	GIN	
Region of Origin	Trips All Reasons	Fishing Trips	Days Spent All Reasons	Days Fished	Trips Main Reason	Day Trips for Fishing	Overnight Fishing Trips	
New England	40,342	20,551	142,749	79,001	14,833	7,136	92,930	
Mid Atlantic	662,225	461,591	2,094,112	1,453,826	389,179	228,866	1,297,060	
East North Central	883,438	732,307	3,476,443	2,639,362	673,040	374,473	2,347,610	
West North Central	277,141	242,614	1,355,263	1,023,251	213,831	41,738	1,041,291	
Mountain	46,021	34,135	314,502	149,568	23,668	7,795	240,204	
Pacific	190,880	111,198	1,213,605	541,937	75,808	9,052	883,829	
South Atlantic	56,175	46,826	435,142	267,491	37,109	12,334	333,233	
Zast South Central	10,814	10,492	71,607	46,130	7,896	776	55,535	
West South Central	19,421	17,918	156,517	100,361	13,878	2,089	147,412	
Other USA	4,882	3,403	34,087	15,890	1,931	727	21,827	
Europe	2,901	2,094	49,441	20,137	421	0	40,547	
Other	194	177	1,743	675	41	•	1,282	
Total	2,194,434	1,683,306	9,345,211	6,337,629	1,451,635	986 * 89	6,502, 6°	

MAJOR PURCHASES (USED IN WHOLE OR PART FOR SPORTFISHING) MADE BY NONCANADIAN ANGLERS IN 1985, BY RECION OF ORIGIN

TABLE 6:

Region of Origin	Boat Related	Camping Related	Special Vehicles	Cottages. Land	Other	Total
New England	113.984	5.593	833,005	843 001	40 032	1 986 678
Mid Atlantic	2,933,773	1.082.633	928.258	7 955 778	20,00 808	13 400 122
East North Central	3,373,052	1,554,680	623.218	0 177 BO2	1 007 830	15,705,122
1st North Central	2,368,659	199,968	1.652.016	5.806.236	318.473	10 345 353
Mountain	252,751	25,077	204.580	10.637.049	184.026	11 304 383
Pacific	3,134,942	75.820	551.588	5,119,300	111 652	0 914 909
South Atlantic	1,777,065	84.948	28.718	7.438.844	131 428	9 461 003
East South Central	248,679	2.586	156,329	183 057	25,120	500,104,0
West South Central	59.714	0 at 24		100,000	111	701'610
Drher IISA		004101	> 1	£1130,604	102,903	2,944,603
CO TOTAL	141,53/	0	0	873,902	11,208	1,026,647
Europe	12,541	44,802	6,270	•	1,232	64,845
her	0	0	0	0	26,181	26,181
[otal	14,416,697	3,121,287	4,984,072	50,972,693	2,771,658	76.266.407



DIRECT EXPENDITURES MADE BY NONCANADIAN ANCLERS IN 1985, BY REGION OF ORIGIN

TABLE 7:

Region of Origin	Packages	Accomodation	Campsite Fees	Food Costs	Travel	Boat Rental	Fishing Supplies	Boat Operating Costs	ng Other Services	Other	Total
New England	140 469	700	0.00								
44 At 1 2 1 2 2		060 1004	119,600	1,148,2/8		134,395	318,677	62,339	1,013,858	103.087	9.954.277
ALU ALLENTIO	13,722,611	13,973,237	1,732,388	17,286,827	8,206,130	3,008,504	3.740.189	2 779 845	5 516 040	728 004	70 718 749
Sast North Central	55,123,663	21,373,725	A. 641.278	11 452 183		A 310 K71				200171	CHI 'CTI 'OI
West Worth Centrel	148 611 06	404		201120000		7/0'676'6	6,047,009	9,635,149	11,669,335	988, 781	162,467,206
Mountain	10,011,01	907,726,6	2, 104, 295	14,124,737		3,110,620	3,824,527	2,740,076	6,487,705	402.354	80.997.643
	410'C41'/	1,463,266	597,355	3,068,282	2,637,289	521,796	805,944	804.331	811.490	447.744	17 016 111
GCIIIC	19,501,308	6,585,299	2,110,200	12,235,093		2 142 159	2 404 020	1010			********
South Atlantic	6.111.422	2 530 203	404 303	246 640 6			40410017	4/015,114	260'961'6	242,339	63,893,881
East South Centrel	101 910 5		100,444	3,300,744		493,183	811,955	516,236	1,116,787	158,109	18,238,888
THE THE STATE OF T	1,340,424	4CD'4T/	236,239	715,809		157,198	200,353	65.368	171 254	12 260	A 647 038
est South Central	6,013,650	1.671.390	194.402	1 864 701	1 200 123	200			******	34,300	4,347,028
Other USA	211 112	111111111111111111111111111111111111111		10000	107 007 7	40%, 998	979'679	188,395	1,082,328	34,106	13,426,621
	644,000	771,202	64,503	2/1,971	337,252	24,608	59,665	25.114	119.512	11,617	1 008 132
acobe.	282,968	255,473	53,775	297,675	337.822	71 05R	73 140	900 7	000		774 (066 (4
Other	22,522	4 027	100		11.0	)	2110	0,030	40,908	1,06/1	1,427,344
		1000	660,1	21,343	32,84/	0	3.424	1,899	2,204	0	91,213
[ote]	143,662,604	59,289,659 13,109,656	13,109,656	89,052,735	53,681,480	15,444,090	19,600,796	17,634,584	31,436,413	2.762.070	445.674.087





TABLE 8: PROJECTED FUTURE PARTICIPATION OF NONCANADIAN ANGLERS IN CANADA, BY REGION OF ORIGIN

110110	Yes	0	No Response	Total
New England	10,220	679	265	11,164
Mid Atlantic	134,482	2,646	3,128	140,256
East North Central	280,472	8,021	6,829	295,322
West North Central	152,436	6,235	3,238	161,909
Mountain	22,305	1,664	1,219	25,188
Pacific	81,525	2,904	1,990	86,419
South Atlantic	24,953	1,502	1,059	27,514
East South Central	7,651	619	53	8,383
West South Central	12,811	872	849	14,532
Other USA	2,664	71	1.7	2.782
Europe	1,478	279	21	1,778
)ther	161	0	0	161
Total	731,158	25,552	18,698	775,408

TABLE 1: CHARACTERISTICS OF THE NONCANADIAN ANCLING POPULATION IN 1985, BY PROVINCE

Province	No. of Anglers	Active Anglers Active Males	Active Males	Active Females
TWN	3,612	3,534	3,274	260
Yukon	4,485	3,940	3,181	759
3.CT1del	66,264	64,712	50, 763	13,949
B.CFresh	38,372	35,749	28,859	068'9
Alberta	5,881	5,589	5,204	385
Saskatchevan	18,738	18,738	15,665	3,073
Manitoba	32,542	32,271	28,926	3,345
Ontario	587,759	574,108	468,315	105,793
Quebec	28,516	28,131	25,705	2,426
New Brunswick	5,914	5,611	5,146	465
Nova Scotla	1,259	1,240	1,154	98
P.E.I.	379	372	345	27
Newfoundland	1,481	1,439	1,362	7.7
Total	795,202	775,434	637,899	137,535

TABLE 2: NUMBER OF FISH CAUGHT BY NONCANADIAN ACTIVE ANGLERS BY SPECIES IN 1985, BY PROVINCE

Province	Arctic Char	Arctic Graylin	g Bass	Pike	Perch	smelt	Salmon	Trout	Whitef is	h Walleye	Other	Total
NWT	7,127	48,409	0	45,428	0	0	0	118,8s1	0	6,136	1,904	227,S85
Yukon	0	35,137	0	6,256	0	0	329	15,s93	566	0	224	58,405
B . CTidal	0	0	0	0	0	0	464,914	0	0	0	488,414	953,328
B.CFresh	41,899	7,377	0	1,747	9,359	0	72,095	532,24S	0	1,022	36,946	702,693
Alberta	0	984	0	70,315	11,305	0	0	106,033	1,736	24,377	2,659	217,409
Saskatchevan	0	10,387	0	824,244	40,S29	0	0	102,621	757	540,207	3,063	1,522,108
Manitoba	0	0	10,90s	1,124,878	0	0	0	99,439	0	S23,993	52,040	2,111,278
Ontario	0	0	4,9s4,917	S,1S0,984	8,062,573	624,10B	32,S75	597,24S	117,S4S	11,577,564	7,152,428	41,330,547
Quebec	0	0	42,546	315,968	104,051	. 0	1s,317	135,515	0	700,764	24,222	1,341,3s3
New Brunswick	0	0	16,375	0	8,9s4	416	20,620	85,845	158	2,735	906	136,039
Nova Scotia	0	0	223	0	299	0	927	15,651	0	-,	3,429	20,529
P.E.I.	0	0	0	0	225	539	14	8,352	0	0	1,433	10,563
Newfoundland	64S	0	0	0	0	59	6,020	46,925	0	0	6,2S2	59,934
Total	49,674	102,294	5,054,969	10,569,S20	8,237,627	625,122	616,111	1,864,671	121,065	13,676,798	7,773,950	48,692,101



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<b>V</b> B		Ē	NUMBER	32	Q WED	NONCANAD AN ACTIVE ANGLER	N ACTIVE	ANGLER			PROVI CE		
	GP BP	<b></b>	<b>2</b>				Sine.	HOU		ę.		Othe	
NWI	1,410	6,130	0		4.388	0	•	•	9,466	6	1.854	854	74. F.C
Yukon	•	14,729	0		2,318	0	•	219	5.024	114		224	22.628
B.CTidal	0	•	0		0	0	•	380,004	0	0		208.520	588.524
B.CFresh	21,774	2,043	0		499	9,359	0	41,593	276,759	0	1.022	8,885	361,934
Alberta	0	204	0	_	14,194	2,360	•	0	6,813	1,131	4,935	641	30.278
Saskatchevan	•	766	•	7	142,343	25,516	0	0	33,269	255	189.742	1.617	
Manitoba	0	0	2,571	18	11,927	0	0	0	24.351	0	275.406	20,655	504.910
Ontario	0	0	1,693,704	2,07	13,070	4,628,505	616,845	17,418	297.617	69.577	4.591.140	3.996.268	17.984.144
Quebec	0	0	42,546	31	315,967	104.051	0	18.317	135,515		700.764	24.222	1 341 382
New Brunswick	0	0	3,085		0	2,987	416	6.465	56,108	14	537	217	60.829
Nova Scotia	0	0	0		0	22	0	273	6.534	Ċ		2.486	0.315
P.E.I.	0	0	0		0	225	539	14	5,121	0	•	1,225	7.126
Newfoundland	126	0	0		0	0	29	2554	10715	0	0	2585	16,039
Total	23,310		23,872 1,741,906	2,73	4,706	2,734,706 4,773,025	617,859	466,857	867,292	71,091	71,091 5,765,400	4,267,983	21,353,301

TABLE 4: OVERNIGHT ACCOMODATION USSO BY NONCANADIAN ANGLERS IN CANADA IN 1985, BY PROVINCE

Province	Friends/ Relat ives	Tent/ Trailer	Cottages	Camping- Prov. Parks	Camping- Crown Lend	Camping-Comm. Camp Ground	Fishing Lodge	Hotels / Motels	Other	Total
NUT	759	5,526	9	841	1,666	946	15,092	1,767	1,900	28,506
Yukon	946	13,053	53	7,2s0	2,150	2,322	1,918	2,598	391	30,681
B.CTidal	46,428	64,179	66,093	18,074	4,239	151,625	80,306	101,468	118,292	650,704
B.CFresh	29,007	5s,050	28,868	40,727	22,612	54,854	69,8S1	26,153	10,271	340,423
Alberta	17,S68	7,11s	4,122	5,710	964	2,804	1,912	16,925	14,472	71,595
Saskatchewan	22,730	16,313	25,168	13,202	6,634	1S,682	55,153	14,462	1,533	173,877
Manitoba	22,094	39,857	8,426	32,931	10,767	18,068	106,480	26,639	3,072	268,334
Ontario	304,817	394,179	1,006,727	168,300	107,524	244,95S	1,616,601	626,629	126,2S2	4,596,014
Quebec	40,371	R/A*	N/A*	34,910	4,929	11,462	S0,868	52,98S	16,021	249,549
New Brunswick	9,283	2,724	15,024	17	221	249	15,651	2,281	903	46,353
Nova Scotia	3,041	1,492	5.271	501	292	1,262	961	2,811	703	16,334
P.E.I.	1,388	165	338	195	80	309	0	1,461	647	4,583
Newfoundland	3,133	1,336	477	955	386	468	5,656	843	221	13,475
Total	509,565	603,992	1,160,576	323,613	162,464	508,006	2,050,479	877,025	294,708	6,490,428

<sup>\*</sup>Category not specified



TABLE 5:	TRIP CHA	RACTERISTICS	CHARACTERISTICS OF NONCANADIAN ANGLERS IN CANADA IN 1983, BY PROVINCE	AN ANGLERS 1	N CANADA IN 1	985, BY PROVI	NCE
Province	Trips All Reasons	Fishing Trips	Days Spent All Reasons	Days Flahed	Trips Main Reason	Day Trips for Fishing	Overnight Fishing Trips
NWT	3,710	3,608	33.275	24.000	2.868		28.506
Yukon	7,291	4,914	48,302	17.748	1,205	26	30.681
B.CTidal	116,496	80,370	848,851	345,287	52,173	7.519	650,703
B.CFresh	99,152	47,549	514,505	229,858	32,301	8,458	340,422
Alberta	9,337	6,911	90,321	29,026	2,946	161	71,595
Saskatchevan	42,343	32,508	230,487	147,868	28,871	11.906	173.877
Manitoba	44,946	38,095	321,509	222,030	34,733	1,808	280,677
Onterio	1,788,517	1,409,185	6,843,106	5,028,445	1.250.184	651.954	4.596,013
Quebec	46,845	44,012	294,996	231.045	34.258	2,369	249,550
New Brunswick	32,162	12,909	80,750	40.238	10,137	5,386	46.354
Nova Scotia	1,521	1,337	18,102	8,489	656	29	16,334
P.E.I.	452	393	5,416	2,384	6	0	4.583
Newfoundland	1,662	1,515	15,591	11,211	1,209	37	13,465
Total	2,194,434	1,683,306	9,345,211	6,337,629	1,451,635	684,986	6,502,760

MAJOR P	PURCHASES	(USED	HI	HOLE	ğ	ART	<b>20</b>	IN WHOLE OR PART FOR SPORTFISHING	MADE 1	<u></u>
	NONCANADIAN ANGLERS	<b>Y Y</b>	SE	RS IN	IN 1985		PRO	BY PROVINCE		

TABLE 6:

Province	Boat Related	Camping Related	Special Vehicles	Cottages- Land	Other	Total
IAN	2,754	30,640	•	1,706	20,217	55,317
fukon	36,736	41,738	0	90,463	11,967	180,904
B.CTidal	3,049,987	47,676	274,347	10,805,731	349,353	14,527,094
B.CFresh	282,118	44,007	480,940	944,409	132,755	1,884,229
Alberta	3,230	960'9	1,316	1,228	51,634	63,504
Saskatchevan	214,544	17,762	7,151	314,322	37,051	590,830
fanitoba	330,708	20,745	722,579	1,766,298	142,208	2,982,538
Ontario	8,705,940	2,438,979	1,597,442	34,655,135	1,704,627	49,102,123
Suebec.	1,715,964	467,279	1,266,730	709,005	252,565	4,411,543
lev Brunswick	70,908	1,144	633,567	1,645,210	50,567	2,401,396
lova Scotia	1,524	2,022	0	35,833	7,696	47,075
.E.I.	0	302	0	2,516	862	3,680
lewfoundland	2,284	2,897	0	837	10,156	16,174
[otel	14,416,697	3,121,287	4,984,072	50,972,693	2,771,658	76,266,407

DIRECT EXPENDITURES MADE BY NONCANADIAN ANGLERS IN 1985, BY PROVINCE

TABLE 7:

Province	Packages	Accomodation	Campsite Fees	Food	Travel Expenses	Boat Rental	Fishing Supplies	Boat Operating Costs	Services	Other	Total
NUT	6,429,593	215,817	5,263	266,067	868,953	42.639	164.115	11.203	176.705	3.362	8.183.717
Yukon	583,014	150,617	71,414	472,303	438,366	26,231	79,073	12,272	87.525	30.882	1,951,697
B.CTidal	18,620,022	5,886,592	1,722,415	9,211,385	8,383,625	2,229,785	2,196,077	5,056,197	2,944,341	187,693	56,438,132
B.CFresh	4,387,539	2,450,126	867,386	4,618,628	4,340,078	401,428	870,675	242,664	788,122	_	19,115,686
Alberta	1,114,259	635,952	71,198	733,539	466,873	26,015	236,640		726,171		4,028,150
Saskatchevan	6,982,023	988,405	316,412	2,149,592	1,902,866	306,663	450,914		573,714		14,133,390
Manitoba	14,304,320	2,388,968	647,017	3,912,902	3,540,149	563,272	964,696		1,688,943	860.69	28.763.535
Ontario	77,318,746	41,253,266	8,802,753	60,964,362	29,076,567	11,007,073	13,297,496	10,173,624 2	22,199,969		275,721,833
Quebec	11,150,772	4,548,050	486,647	5,516,388	3,979,695	801,698	1,077,526		1,280,202	638,101	30.447.797
New Brunswick	1,210,927	474,541	76,789	705,400	321,587	31,076	178,621		801,145	13,914	3.833.293
Nova Scotla	92,231	149,526	22,454	259,747	144,512	3,871	44,336	689	69,620	10,538	797.524
P.E.I.	1,226	29,342	7,853	61,535	26,538	1,734	7,085	805	5.654	1,218	142.990
Newfoundland	1,467,932	118,458	12,054	180,887	191,671	2,605	33,542	4,200	94,302	10,692	2,116,343
Total	143,662,604	59,289,660 13,109,635	13,109,655	89,052,735	53,681,480	15,444,090	19,600,796	17,634,584 3	31,436,413	2,762,070	445,674,087





TABLE 8: PROJECTED FUTURE PARTICIPATION OF NONCANADIAN ANGLERS IN CANADA, BY PROVINCE

Province	Yes	N <sub>o</sub>	No Response	Total
	2,954	502	72	3,528
_	3,057	697	188	3,942
Tide1	60,046	2,448	2,218	64,712
B.CFresh	33,330	1,700	717	35,747
Alberta	4,618	686	285	5,589
Saskatchevan	17,215	927	593	18,735
Manitoba	30314	1957	0	32,271
Ontario	544,938	15,201	13,957	574,096
Quebec	27,062	721	344	28,127
Nev Brunswick	4,991	395	225	5,611
Nova Scotia	1,020	179	04	1,239
.E.I.	336	14	21	371
Wewfoundland	1,277	125	38	1,440
Total	731,158	25,552	18,698	775,408

	€	9u				Sme	mon	ron	ų.		8	
MUT	2,916	4,037	0	3,558	0	0	0	7,088	47	1,364	10	19,020
Yukon	275	4,905	0	2,136	0	0	3,363	7,936	224	. 51	73	18,963
B.CTidel	109	•	1,086	93	0	93	251,660	3,740	0	•	65,748	322,529
B.CFresh	1,254	4,012	948	2,070	249	0	31,217	126,202	205	3,002	563	169,722
Alberta	•	1,317	0	6,468	677	0	•	6,621	402	3,871	29	19,385
Saskatchevan	0	1,362	251	37,842	2,782	0	334	18,839	85	42,475	85	104,055
Manitoba	7.4	751	5,436	62,683	824	0	64	26,104	326	76,203	4,573	177,017
Ontario	0	777	625,093	752,420	154,925	797	15,601	259,978	9,296	1,168,298	165,396	3,152,248
Quebec	1,844	0	13,088	39, 587	3,478	0	9,379	28,287	198	57,656	1,145	154,662
New Brunswick	<b>9</b> 9	0	2,727	31	285	17	12,831	9.474	0	639	135	26,200
Nova Scotia	0	0	360	11	55	0	•	3,079	29	276	2,131	5,941
P.E.I.	0	0	0	0	45	22	208	1,494	0	0	193	1,962
Newfoundland	422	0	0	114	0	•	3,085	3537	10	20	144	7,332
Total	6,958	16,828	648,989	907,013	163,320	926	327,721	502,379	10,822	1,353,855	240,225	4,179,036



TABLE 10: FISH CON UMP DISTRIBUTION BY NONCANADIAN ANG ERS IN 1985. BY PROVINCE

Province	Weight of Fish Amount Esten Kept (in 1bs) (X)	Amount Eaten (X)	Total Weight Eaten (in 1bs)
NWT	136,312	83.2	113,391
Yukon	50,693	92.9	47.070
B.CTidel	2,943,672	82.1	2,417,130
B.CFresh	573,006	82.9	475,030
Alberta	82,430	71.8	59,220
Saskatchevan	1,051,278	82.6	868,484
Manitoba	1,765,859	86.8	1,532,059
Ontario	24,206,893	89.2	21,592,245
Quebec	2,399,318	60.0	1,439,254
New Brunswick	57,855	85.0	49,176
Nova Scotia	8,540	49.7	4,241
P.E.I.	6,471	89.8	5,811
Newfoundland	32,865	81.7	26,839

PACTORS AFFECTING HONCAHADIAM ANGLER PISHING ENJOYMENT, BY PROVINCE (IN X)

TABLE 11:

							THE STATE OF THE S	(* NI) 47H				
Province	Privacy	Number of Fish Caught	Surroundings	Weather	Sime of Fish Caught	Escape from Routine	Source of Food	Quality of Water	Angling for Wild Fish	Angling for Access to Wild Fish Wilderness	Catching Species Desired	
	,		;									l
7	7.01	ю. Ю	11.9	8·/	0.6	10.0	1.9	11.9	9.7	10.4	*	
Tukon	11.3	9.7	13.6	8.6	6.1	10.8	~		•		,	
B.CTidal	7.3	9.8	14.0	11		:		7.0	. ·	TO.	0.0	
B.CFresh	-		, ,		•	0.11	9.	12.3	6.2	8.7	e. e	
		· · ·	13.7	8.7	o.	10.8	2.3	12.8	60	0.0	7.0	
ALDERER	10.0	7.7	13.1	7.5	8.2	9.6	9.0					
Saskatchevan	10.2	8.7	12.0	•	<b>a</b>		: .	}			0.0	
Manitoba	0	•		•			7.5	12.4	8.2	0.6	e. 0	
Ontonio		7 · K	12.0	7.5	D.	10.3	2.5	12.1	7.7	7.6	6	
OILET TO	0.5	<b>30</b>	12.8	e. 6.	80	11.2	9.0	12.0		•		
Onepec *	٧/ ٢	Y/W	V/N	W/W	W/A	V/M			: ;		A :	
New Brunswick	11.0	ď			•	4/4	<b>6</b>	<b>4/2</b>	Y   E	Y/W	<b>4/8</b>	
Move Sontie			7:54	7.,	7.	10.5	 8:	12.9	10.4	6.6	10.1	
******	D.O.	7.0	14.2	9.9	4.9	10.2	1.4	14.0	•	7 11		
F. S. I.	11.5	7.4	14.1	. 4	•	0			•	0.11		
Mewfound! and	11.0	-		: :		N .	P. 7	14.3	10.5	8.6	₹.60	
	7:11	•	6.21	6.0	9.7	₹.6	1.1	12.2	11.4	10.9	10.0	

Questron not maked on quebec questionnaire



ACTIVITIES OF NONCANADIAN ANGLERS IF NO FISHING OPPORTUNION IN CANADA IN 1985, BY PROVINCE

TABLE 12:

Province	Stayed Shorter Time	Substitute Other Activites	Not Come at All	No Response	Total
NWI	161	894	2,480		3.535
Yukon	1,124	2,092	438	287	3,941
B.CTidal	060'6	23,623	31,245	754	64,712
B.CFresh	5,412	13,717	16,202	417	35,748
Alberta	692	2,867	1,914	117	5,590
Saskatchevan	1,770	2,878	14,006	83	18,737
Manitoba	2,487	4,292	25,491	0	32,270
Ontario	42,422	122,449	399,933	9319	574,123
Quebec	2,516	808,4	20,720	98	28.130
New Brunswick	471	1,582	3,409	149	5,611
Nova Scotia	170	591	460	18	1,239
P.E.I.	43	271	20	0	364
Newfoundland	127	257	1046	80	1,438
[otal	66,485	180.321	517.304	11,230	774 000

NONCANADIAN ANGLERS RATINGS ON QUALITY OF FISHING IN CANADA IN 1985, BY PROVINCE TABLE 13 : Province Excellent very Good Good Fair Poor No Response Total 1,486 1,079 473 275 NUT 162 59 3,534 780 Yukon 692 530 992 696 256 3,946 B.C. -Tidal 10,531 18,636 17,797 8,686 8,277 2,338 66,265 5,153 750 B.C. -Fresh 5,250 8,463 10,024 6,390 35,749 469 Alberta 1,284 1,885 1,000 532 138 5,589 Saskatchewan 5,179 5,351 4,405 1,863 1,681 255 18,734 Manitoba 7,103 10,879 8,177 4,244 1,870 32,273 Ontario 66,003 146,078 188,797 108,045 57,783 7,460 574,166 Quebec 5,919 7,180 9,107 3,740 2,052 132 28,130 New Brunswick 478 1,130 1,460 1,401 969 172 5,610 93 197 302 326 286 Nova Scotia 32 1,236 P.E.I. 45 68 79 79 79 21 371 Newfoundland 329 374 321 193 175 49 1,441 Total 104,392 201,850 242,934 136,554 79,933 11,3s1 777,044





1980-1984	
CAWADA.	RY PROVINCE
H	2
ANGLERS	(BASED ON ANGLER POPULATION) R
IADIAN	POPUL
NONCAR	ANGLER
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ACTIVITY	(BASED
BLE 14: FISHING ACTIVITY OF NONCANADIAN ANGLERS IN CANADA. 1980-19	
14:	
TABLE 14	

Province	1980	1981	1982	1,983	1984
TAN	036	;		:	
•	200	07		486	
Yukon	316	452	316	53.1	215
B.CTfda1	11 211	4 4 8 0 0			
	110 177	44,399	13,0/0	17,744	7
d.CFresh	<b>∀</b> ⁄¤	N/A	N/N	W/W	
Alberta	620	124	408		
			1	1,130	
	3,243	0,092	7,116	7,708	
HEDITODE	9,779	10,934	11.487	14.069	
Ontario	271.236	278 466	200		
7.0		001	200,128	342,3/0	
o and	12,839	13,053	14.277	16.077	
lev Brunsvick	2.051	1 003	166		
There of the bar	100		40747	4,03%	
TIDOR SCOLIE	262	274	299	374	
. E. I.	102	110	128	011	
Management of the state of	1 1 1	1	1		
	299	307	309	458	424
Total	314,418	324,220	351.218	403,721	430 613
					176,013

<sup>\*</sup> Not asked on questionnaire