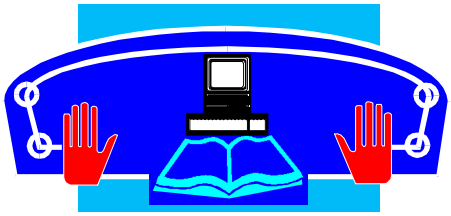

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Central and Arctic Region
Department of Fisheries and Oceans
Winnipeg, Manitoba R3T 2N6

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by

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ABSTRACT

Low. G., and C.J. Read. 1987. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchill), on Great Slave Lake, Northwest Territories, 1983 and 984. Can. Data Rep. Fish. Aquat. Sci. 641: v + 38 p.

Data from the fish plant sampling and fishery observations on the Great Slave Lake commercial fishery, summer and winter, are presented. Production and catch per unit of effort by vessel type at weekly intervals by fishing area are shown. A total of 3 909 lake whitefish were sampled for age, length and weight. From the winter fishery observations, 17 outfits lifting 89 nets (9 099 m), were observed for catch, effort and cull age.

Key words: catch composition; catch/effort; commercial fishing; cullage; exploitation; fishery management; monitoring.

RÉSUMÉ

Low. G., and C.J. Read. 1987. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchil 1), on Great Slave Lake, Northwest Territories, 1983 and 984. Can. Data Rep. Fish. Aquat. Sci. 641: v + 38 p.

Le rapport présente des données sur l'échantillonnage à l'usine de transformation et sur les observations des pêches commercials d'été et d'hiver clans le Grand lac des Esclaves. On y donne les chiffres de production et des prises par unité d'effort selon le type de bateau et la zone de pêche pour chaque semaine. Les données sur l'âge, la longueur et le poids ont été recueillies à partir d'un échantillon de 3 909 corégones. Quant à la pêche d'hiver, les observations ont été faites auprès de 17 entreprises qui ont utilisé 89 filets (8 099 m) et portaient sur les prises, l'effort et les rejets.

Mets-cl@s: composition des prises; prises/effort; pêche commercial; rejets; exploitation; gestion des pêches; contrôle.

INTRODUCTION

Commercial fishing first began on Great Slave Lake in 1'445. Since then the fishery has been monitored annually for total catch; however, few studies were conducted on the effects of exploitation on the stocks of the commercial species (Rawson 1951, 1953a: Keleher 1972; Kennedy 1956) until the 1970's.

In 1971, the Department of Fisheries began a long term stock assessment and monitoring program designed to collect information considered essential for the sound management of the Great Slave Lake commercial fishery. These programs are consistent with the recommendations of the Great Slave Lake Working Party (1969) outlined in Roberge et al. (1982).

In order to meet these objectives, a three-component field study was implemented including fish plant sampling, fishery observations and experimental gillnetting. Results of this work for the years 1972 to 1981 have heen described by Rend (1974a, b, 1975a, b), Rend and Turnbull (197?.), Moshenko et al. (1978, 1981), Moshenko and Low (1978a, b, 1979, 1980) and Roherge et al. (19%?, 1984).

Two components, fish plant sampling and winter fishery observations, were carried out during 1983 and 1984. This report summarizes, in tabular form the data gathered from each of these two components.

STUDY AREA

Great Slave Lake lies in the southwest corner of the District of Mackenzie. Northwest Territories (Fig. 1). It is the fifth largest lake in North America, having a surface area of 27 195 km² and a drainage area of 985 300 km². Stretching 440 km from its extreme east end to the outlet of the Mackenzie River, the lake straddles two physiographic regions. The northeast shore of the north arm and the east arm lie within the Precambrian Shield and have irregular, precipitous margins. The western portion of the lake overlies the alluvial plain known as the Mackenzie Lowlands and has few islands and gently sloping shores. The rivers entering the lake from the shield are cold, clear and rapidly flowing while those entering from the south are slow flowing brown water streams laden with silt during spring and early summer. While the western basin has a maximum depth of approximately 165 m and a mean depth of 42 m, a depth of 625 m has been recorded in the east arm (Rawson 1950). Physical and biological characteristics of the lake have been described in detail by Rawson (1950, 1951, 1953a, b).

DESCRIPTION OF THE FISHERY

Great Slave Lake has been fished commercially since 1945. During the 1950's annual production of whitefish and trout averaged 2.9 million kg as the large accumulated stock was exploited. Since the 1950's commercial production of both species has decreased annually and whitefish and trout have reacted differently to exploitation (Keleher 1972). The west end of the lake is now being managed for whitefish production with minimal regard to lake trout, the latter being unable to withstand commercial gillnetting. Gillnets have been the sole means of exploitation by the commercial fishery since its inception. The legal minimum mesh size was 139 mm stretched mesh until regulation changes in 1977 allowed the use of 133 mm mesh as the legal minimum mesh size. There has been no restriction on the number of nets a fisherman may use since 1961. Almost the entire lake has been open to commercial fishing at some point in the history of the fishery, although certain areas have been closed to protect subsistence and sport fisheries (Fig. 1 and Northwest Territories Fishery Regulations 1985). The east arm of Great Slave Lake (Area VI) was completely closed to commercial fishing in 1974 and is being managed exclusively for subsistence and sport fishing (Moshenko and Gillman 1978).

There are at least 25 fish species in the lake (Keleher 1972) of which only five are of commercial importance. The major commercial species in decreasing order of importance are: lake whitefish, Core osn. coregonumis (Mitchill); lake alvelinus namaycush (Wal - baum); i nconnu, Stenodus leucichthys nelma (Pallas); northern pike, Esox lucius (Linnaeus); and walleve (Dickered), Stizostedion vitreum vitreum (hitch\ n). Cisco, Coregonus spp., burbot. Lota lota (Linnaeus) and longnose sucker, Catostomus catostomus" (Forster) may constitute up to 40% or more of the total catch; however, they are cu1 led on the lake due to lack of market demand.

The 1 ake *is* di vialed into six administrate ve areas for management purposes and a portion of the total annual quota of 1 681 900 kg round weight of whitefish and trout is al 1 otted to each area (Table 1). The annual quota is based on the period commenci ng 1 November and termi na - ting on the following 31 October and applies to the combined catch for both the winter and summer fi sheri es. More detai led histories of the commerci al fishery on Great S1 ave Lake are given by Kennedy (1956), Keleher (1972) and Bond and Turnbul 1 (1973). The description of the winter and surnner fisheries is summari zed by Moshenko et al. (1978).

MATERIALS AND METHODS

FISH PLANT SAMPLING

Monthly summaries of the landings by species by admi ni strati ve area were compi 1 ed from the Freshwater Fish Marketing Corporation (FFMC) sales s1 ips by Department of Fisheries and Oceans (DFO) staff in Hay River.

The following table lists the factors used to convert various species and forms to round weight:

Species	Form	Conversion Factor
Whitefish	dressed	x 1.17
Pickerel	dressed	x 1.22
	headless dressed	x 1.39
Trout	dressed	x 1.21
	headless dressed	x 1.53
Pike	dressed	x 1.22
	headless dressed	x 1.53
Inconnu	dressed	X 1.16
	headless dressed	x 1.35

Production values presented in this report (Tables 2-6) include whitefish culls at the plant but do not include an estimate of deteriorated whitefish discarded on the lake. Fishermen cull these fish as the nets are lifted but no record is made of the numbers or estimated weight. Fish which do not meet the market size and quality requirements are further culled by graders at the fish plant and the weight is recorded on the sales slip. Cullage on the lake was not subtracted from the quota during the 1983 and 1984 seasons.

Commercial landings of whitefish were sampled from each of the six administrative areas fished during the sample periods. Sampling frequency was based on a schedule as follows:

Winter - December 1 to March 30
Summer - June 10 to July 15
Fall - Septemher 1 to October 15

Boxes of fish were selected at random from the catches of various fishermen as they arrived at the plant. All whitefish in the box, up to a maximum of 70 fish per individual fisherman were sampled. Thus, the sample of 200 whitefish should have been taken from at least three different fishermen. An additional 10 fish were sampled to compensate for scale samples which were unsuitable for aging. The fish were measured for fork length (± 1 mm) and dressed weight (± 50 g). Scales were taken from the left side of the fish from the area just above the lateral line and below the dorsal fin.

CATCH PER UNIT OF EFFORT (CPUE)

Number of vessel deliveries and whitefish landings (production in kilograms round weight) by weekly intervals for each administrative area (Tables 11-12) as well as total whitefish production, estimates for total numbers of nets used and CPUE (kilograms round weight/91 m/24 h) by weekly intervals (Tables 13-26) were calculated as described by Moshenko et al. (1978, 1981) and Moshenko and Low (1979, 1980).

WINTER FISHERY OBSERVATIONS

Winter fishery observations were conducted in 1983 and 1984 by DFO Fishery Officers during their regular snowmobile patrols on Great Slave Lake. Observations were recorded whenever fishermen were encountered lifting gillnets on the lake. Due to the encounter approach the fisherman's entire daily lift was not observed. Data collected represent a sub-sample of the fisherman's lift.

The number of each species caught and culled per net was recorded as the nets were being lifted. The fishermen were then interviewed for information pertaining to the number of nets set, location and duration of the net-gang sets, mesh size, mesh depth, twine size, depth fished, type of vehicle and size of *crew.*

Observations were conducted from December to March of each season in Areas IE and IW (Fig. 1). The observation program was limited to areas which were close to Hay River and were patrolled frequently. Areas IE and IW contributed 75% of winter whitefish production during the 1983 and 1984 winter seasons (Tables 5 and 6).

810LOGICAL DATA

The scale age of whitefish was determined by counting the number of completed annuli. That is, an age 10 fish was in its eleventh year.

Annual mortality rates (natural and fishing) were calculated using the method (all ages known) outlined by Robson and Chapman (1961). The total annual mortality is defined as the number of fish which die during a year, divided by the initial number (Ricker 1975). The right hand descending portion of a catch curve may he used to estimate annual mortality rates if the following assumptions can he met:

i) constant survival or mortality rates over the range of age classes, and with time;
ii) constant *year class* strength (even recruitment); and
iii) all fish beyond some age are equally vulnerable to the harvesting gear.

Ricker (1975) indicated that the modal age in the catch curve will commonly lie quite close to the first year in which recruitment can be considered effectively complete. Recruitment is defined as the addition of new fish to the vulnerable population by growth among small size categories. In our calculations, we first selected the modal age class and then chose the next older age class to be sure that all fish beyond this age are at the age of effectively complete recruitment and fully susceptible to the gear.

Data were analyzed using an Amdahl 5850 computer (University of Manitoba). The Statistical Analysis System (1'98?) was used to generate the length and age tables. A Hewlett Packard (model 9810A) programmable calculator was used to generate the survival rates.

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REFERENCES

BOND, W.4. 1974a. The Great Slave Lake commercial fishery, summer, 1973. Can. Fish. Mar. Serv. Data Rep. Ser. CEN/T-74-8: 38 p.

BOND, W.4. 1974b. Data on ciscoes, burbot, and longnose suckers from Great Slave Lake, N.M.T., 1973. Can. Fish. Mar. Serv. Data Rep. CEN/D-74-3: 44 p.

fiONO, W.A. 1975a. Commercial fishery data from Great Slave Lake, N.W.T., 1974. Can. Fish. Mar. Serv. Oata Rep. Ser. CEN/D-75-5: 24 p.

BOND, W.A. 1975b. Results of an experimental gillnetting program at the west end of Great Slave Lake, N.W.T. during summer, 1974. Can. Fish. Mar. Serv. Data Rep. Ser. Tech. Rep. CEN/D-75-7: 83 p.

BOND, M.A., and T.D. TURNBULL. 1973. Fishery investigations at Great Slave Lake Northwest Territories 1972. Can. Fish. Mar. Serv. Tech. Rep. Ser. CEN/T-73-7: 78 p.

GREAT SLAVE LAKE WORKING PARTY. 1969. Unpublished report. 20 p.

KELEHER, J.J. 1972. Great Slave Lake: effect of exploitation on salmonid community. J. Fish. Res. Board Can. 29: 741-753.

KENNEOY, W.A. 1956. The first ten years of commercial fishing on Great Great Slave Lake. Bull. Fish. Res. Board Can. 107: 58 p.

MOSHENKO, R.W., L.W. DAHLKE, and G. LOW. 1978. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchill), on Great Slave Lake, Northwest Territories, 1977. Can. Fish. Mar. Serv. Data Rep. 101: v + 30 p.

MOSHENKO, R. W., and 11. V. GILLMAN. 1978. Creel census and biological investigation on lake trout, Salvelinus namaycush (Walbaum), from Great Rear and Great Slave lakes, Northwest Territories, 1975-76. Can. Fish Mar. Serv. Manuscr. Rep. 1440: v + 37 p.

MOSHENKO, R.W., and G. LOW. 1978a. Lake whitefish, Coregonus clupeaformis (Mitchill) from the commercial fishery of Great Slave Lake, Northwest Territories, 1975-76. Can. Mar. Fish. Serv. Data Rep. 53: iv + 16 p.

MOSHENKO, R. W., and G. LOW. 1978b. An experimental gillnetting program on Great Slave Lake, Northwest Territories, 1977. Can. Fish. Mar. Serv. Oata Rep. 102: iv + 51 p.

MOSHENKO, R.W., and G. LOW. 1979. Oata from the commercial fishery for lake whitefish. Coregonus clupeaformis (Mitchill), on Great Slave Lake, Northwest Territories, 1978. Can. Fish. Mar. Serv. Data Rep. 139: V+29 p.

MOSHENKO, R. W., and G. LOW. 1980. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchill), Great Slave Lake, Northwest Territories, 1979. Can. Data Rep. Fish. Aquat. Sci. 194: V+29 p.

MOSHENKO, R.W., G. LOW, and C.J. READ. 1981. Data from the commercial fishery for lake whftefish, Coregonus clupeaformis (Mitchill), on Great Slave Lake, Northwest Territories, 1980. Can. Data Rep. Fish. Aquat. Sci. 305: v + 40 p.

NORTHWEST TERRITORIES FISHERY REGULATIONS. 1985. P.C. 1974-1106, amended P.C. lq85-2352 August 28, 1985

RAWSON, 0.S. 1950. The physical limnology of Great Slave Lake. J. Fish Res. Board Can. 8: 207-240.

RAWSON, D.S. 1951. Studies of fish of Great Slave Lake. J. Fish Res. Board Can. 8: 207-240.

RAWSON, 0.S. 1953a. The standing crop of plankton in lakes. J. Fish Res. Board Can. 10: 224-237.

RAWSON, 1). S. 1953b. The bottom fauna of Great Slave Lake. J. Fish. Res. Board Can. 10: 4s36-520.

RICKER, W.E. 1975. Computations and interpretations of biological statistics of fish populations. Bul 1. Fish. Res. Roard Can. 119: 382 p.

ROt3ERGE, M.M., G. LOW, and C.J. READ. 1982. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchill). on Great Slave Lake. Northwest Territories, 1981. Can. Data Rep. Fish. Aquat. Sci. 335: iv + 21 p.

ROBERGE, M.M., G. LOW, and C.J. READ. 1984. Data from the commercial fishery for lake whitefish, Coregonus clupeaformis (Mitchill), on Great Slave Lake, Northwest Territories, 1982. Can. Data Rep. Fish. Aquat. Sci. 437: iv + 24 p.

ROBSON, D. S., and D.G. CHAPMAN. 1961. Catch curves and mortality rates. Trans. Am. Fish. Soc. 90(2): 181-189.

STATISTICAL ANALYSIS SYSTEM (SAS) INSTITUTE INC. 1982. SAS user's guide: Basics, 1982 edition. Cary, NC. 923 p.

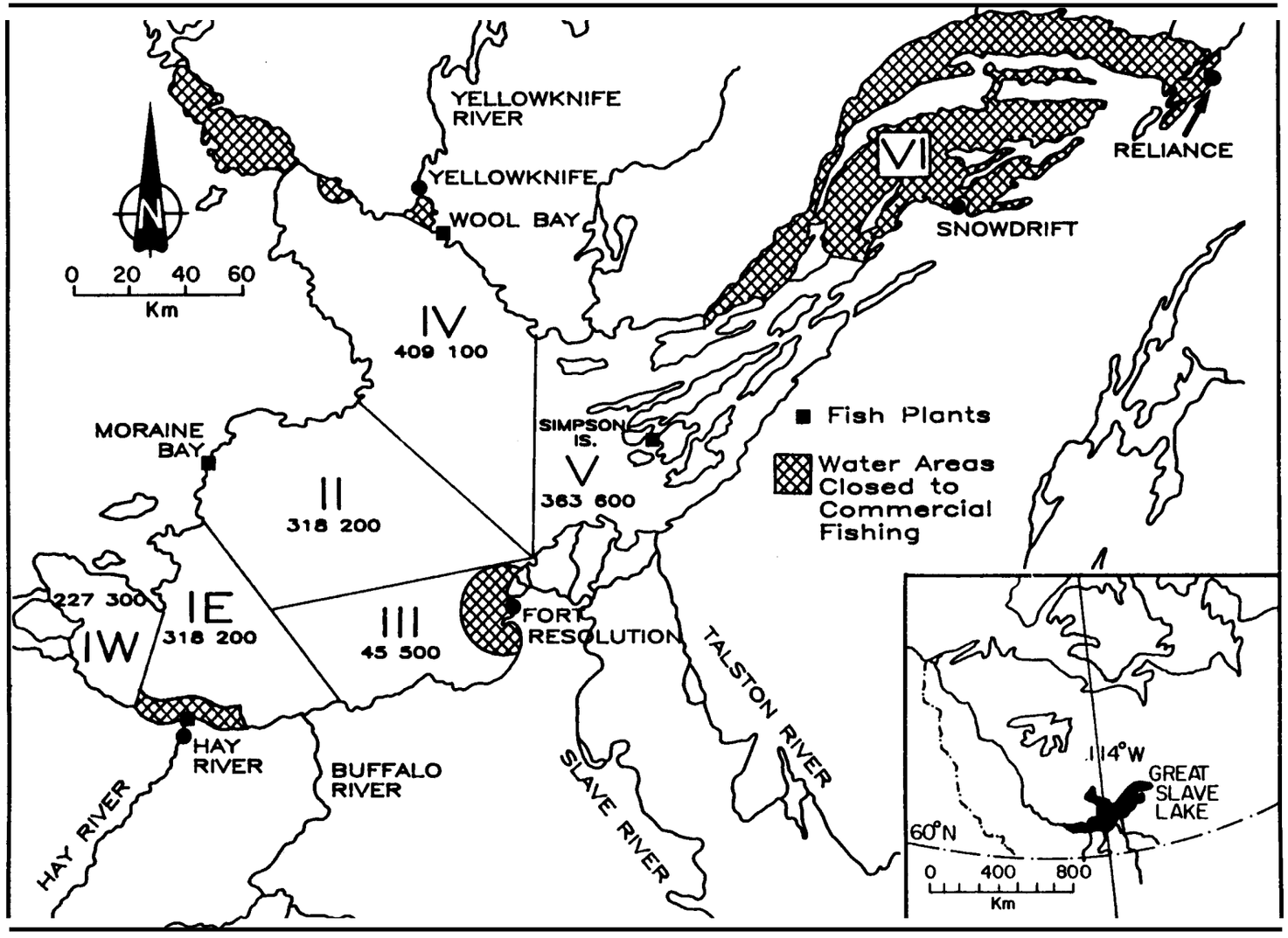

Fig. 1. Map of Great Slave Lake showing the administrative areas and quotas, areas closed to commercial fishing and the location of fish plants.

Table 1. Commercial quotas in effect on Great Slave Lake during the 1976 to 1984 seasons.

Administrative Area	Corrnnercial Quota of Whitefish and Trout [1] (kg round weight)						
	1975-76	1976-77 1977-78	1978-79	1979-80	1980-81	1981-82	1982-83 1983-84
IW	227 273	227 273	227 273	227 273	227 30(3	227 300	227 300
IE	318 181	318 181	318 181	318 181	318 200	318 200	318 200
II	681 819	318 181	318 181	318 181	318 200	318 200	318 200
111	Nil	Nil	45 455	45 455	45 500	79 500	45 500
IV	622 727	409 0’21	409 091	409 091	409 100	409 100	409 100
v	325 000	?72729	295 455	363637	363600	363600	363600
Total	2 175 000	1 545 455	1 613 636	1 ml 818	1 (ml 900	1 715 900	1 681 9(MI

* Season runs from November 1 of one year to October 31 of the next.

Table 2. Annual production of commercial species for Great Slave Lake, 1973 to 1984 (x 1000 kg, round weight).

Year [1]	Whitefish	Trout	Pike	1nconnu	Walleye	Total	
						Whitefish & Trout	All Species
1972-73	1 004	92	155	103	17	1 096	1 371
1973-74	973	111				1 084	1 084
1 9 7 4 - 7 5	921	99	96	95	10	1 020	1 221
1975-76	975	83	103	77	9	1 058	1 247
1976-77	1 172	108	118	86	11	1 280	1 495
1977-78	1 107	105	157	153	13	1 212	1 535
1978-79	1 065	121	129	153	6	1 186	1 474
1979-80	1 178	122	199	65	19	1 300	1 583
1980-81	1 097	85	151	43	4	1 182	1 380
1981-82	1 139	75	166	23	23	1 214	1 411
1982-83	899	61	115	16	5	960	1 096
1983-84	863	50	1(-I8	47	15	913	1 083

[1] Season runs from November 1 of one year to October 31 of the next.

Table 3. Total production of commercial species (kg round weight) by administrative area, November 1, 1982 to October 31, 1983.

Species	Production from each administrative area						
	IW	IE	II	111	Iv	v	Total
Whitefish	221 149	113 226	158 957	21 987	257 323	125 882	898 524
Trout	767	1 022	1 589	28	3 779	54 048	61 233
Pike	49 262	14 294	10 721	1 564	16 306	22 760	114 907
Inconnu	2 451	4 446	546	2 837	2 381	3 4311	16 091
Walleye	543	249	52	85	1 123	2 859	4 911
Total	274 172	133 237	171 865	26 501	280 912	208 979	1 095 666

Table 4. Total production of commercial species (kg round weight) by administrative area, November 1, 1983 to October 31, 1984.

Species	Production from each administrative area						
	IW	IE	11	III	IV	v	Total
Whitefish	227 916	110 949	195 007	22 144	198 312	108 756	863 084
Trout	3 357	2 591	2 846	18	1 189	40 154	50 155
Pike	35 413	9 437	13 392	1 470	22 883	21 980	104 575
Inconnu	5 431	24 788	516	7 019	2 154	7 102	47 010
Walleye	839	2 057	88	3 975	2 388	5 920	15 267
Total	272 956	149 822	211 849	34 626	226 926	183 912	1 080 091

Table 5. Production of whitefish and trout (kg round weight) from each administrative area for the winter season, 1982-83 and the summer season, 1983.

Administrative Area	Winter		Summer		Total		
	Whitefish	Trout	Whitefish	Trout	Whitefish	Trout	Total
IW	159 277	237	61 872	530	221 149	767	221 916
IE	61 956	61	51 270	961	113 226	1 022	114 248
II	5 861	18	153 096	1 571	158 957	1 589	160 546
111	Nil	Nil	21 987	28	21 987	28	22 015
IV	71 274	99	186 049	3 680	257 323	3 779	261 102
v	Nil	Nil	125 882	54 048	125 882	54 048	179 930
Total	298 368	415	600 156	60 818	898 524	61 233	959 757

Table 6. Production of whitefish and trout (kg round weight) from each administrative area for the winter season, 1983-84 and the summer season, 1984.

Administrative Area	Winter		Summer		Total		
	Whitefish	Trout	Whitefish	Trout	Whitefish	Trout	Total
I w	126 549	1 289	101 367	2 068	227 916	3 357	231 273
IE	35 676	635	75 273	1 956	11(-I 949	2 591	113 540
11	54 459	319	140 548	2 527	195 007	2 846	197 853
111	Nil	Nil	22 144	18	22 144	18	22 162
IV	Nil	Nil	198 312	1 189	198 312	1 189	199 501
v	Nil	Nil	108 756	40 154	108 756	40 154	148 910
Total	216 684	2 243	646 400	47 912	863 084	50 155	913 ?39

Table 7. Winter and summer prices (¢/kg) for the commercial fish species, basis loose fresh fish, F.O.B. Hay River Plant, from Great Slave Lake, NWT for winter 1982-83 and summer 1983.

Species and Form	Winter 1982-83[1]			Summer 1983[2]		
	Dec. 17	Feb. 20	Mar. 13	FFMC[3]	GNWT[4]	Total
Whitefish (dressed)						
large smokers	-	-	-	71	19	90
medium smokers			-	71	19	90
jumbo (1.8 kg)	133	143	165	65	29	94
large (1.4-1.8 kg)	122	133	155	63	26	89
medium (0.7-1.4 kg)	111	122	144	60	28	88
small (0.45-0.7 kg)	89	100	122	34	16	50
Lake Trout						
dressed - medium (1.8-3.6 kg)	122	122	122	100	11	111
- small (0.9-1.8 kg)	89	89	89	78	11	89
headless dressed (3.6 kg)	133	133	133	100	11	111
Pickerel						
round - large	133	166	88	102	0	102
- medium	133	166	88	113	0	113
- small	122	155	77	102	0	102
headless dressed - large	199	199	99	157	0	157
- medium	199	199	99	173	0	173
small	188	188	88	157	0	157
Northern pike						
head-on dressed (1.8-4.1 kg)	81	81	81	63	15	78
headless dressed	42	42	42	32	8	40
Inconnu						
headless dressed	125	125	125	122	0	122

[1] 30% of the price was deducted for fish delivered frozen.
[2] A freight charge of 6.6 ¢/kg was deducted for fish delivered to the Moraine Bay, Wool Bay and Simpson Islands fish stations. The Government of the Northwest Territories (GNWT) subsidized freight costs on Great Slave Lake in order to keep the fishermens' freight costs at this level.
[3] Freshwater Fish Marketing Corporation prices.
[4] GNWT subsidized fish prices in the summer of 1983 as sted.

NOTE: Final payments to fishermen were not made in 1983.

Table 8. Winter and summer prices (¢/kg) for the commercial fish species, basis loose fresh fish, F.O.B. Hay River Plant, from Great Slave Lake, NWT for winter 1983-84 and summer 1984.

Species and Form	Winter 1983-84[1]			Summer 1984[2]		
	Nov. 2	Feb. 17	Mar. 17	FFMC[3]	GNWT[4]	Total
Whitefish (dressed						
large smokers	-	-	-	69	29	98
medium smokers	-			67	29	96
jumbo (1.8 kg)	111	166	188	69	35	104
large (1.4-1.8 kg)	100	155	177	67	35	102
medium (0.7-1.4 kg)	89	144	166	65	35	100
small (0.45-0.7 kg)	67	100	111	34	22	56
Lake Trout						
dressed - medium (1.8-3.6 kg)	133	177	177	140	0	140
- small (0.9-1.8 kg)	100	155	155	118	0	118
headless dressed (3.6 kg)	144	166	166	129	0	129
Pickerel						
round - large	133	177	199	33	0	133
- medium	155	266	288	55	0	155
- small	133	177	199	33	0	133
headless dressed - large	160	160	160	60	0	160
- medium	186	184	184	84	0	184
- small	160	160	160	60	0	160
Northern pike						
head-on dressed (0.35-1.8 kg	47	47	47	-		-
(1.8-4.1 kg)	81	81	81	63	0	63
headless dressed	47	47	47	32	0	32
Inconnu						
headless dressed	144	199	199	144	0	144

[1] GNWT subsidy - winter was 10.5¢/kg for medium dressed whitefish. 30% of above listed prices was deducted for fish delivered frozen.

[2] A freight charge of 6.6¢/kg was deducted for fish delivered to the Moraine Bay, Wool Bay and Simpson Islands fish stations. The Government of the N.W.T. subsidized freight costs on Great Slave Lake to keep the fishermens' freight costs at this level.

[3] Freshwater Fish Marketing Corporation prices.

[4] GNWT subsidized fish prices in the summer of 1984 as listed.

NOTE: In addition, final payments were provided to and received by fishermen in November 1984 for the fish produced during the 1983/84 fiscal year as follows: whitefish 9.0¢/kg, lake trout 77¢/kg, pickerel (round) 91¢/kg, dressed 107¢/kg, northern pike 35¢/kg and inconnu 1[illegible]¢/kg.

Table 9. Information on vehicle and vessel observations, number of persons and number of nets used in the Great Slave Lake commercial fishery, winter 1982-83 and summer 1983.

WINTER FISHERY[1] (November - May)

Licence Class*	Max. Licences Available	No. Licences Issued	No. of Vehicles Producing	Total No. Persons	No. Persons Per Vehicle	No. Nets Per Vehicle
A	32	13	10	?5	2.5	30
B	30	9	6	8	1.3	15
Total	62	22	16	33		

SUMMER FISHERY (June - October)

Licence Class[3]	Max. Licences Available	No. Licences Issued[1]	No. of Vessels Producing	Total No. Persons[4]	No. Persons Per Vessel[4]	No. Nets Per Vessel[4]
A	28	22	19	82	4.3	71
B	80	43	23	53	2.3	24
Total	108	65	42	135		

[1] Information obtained from Field Services records, Hay River.
[2] Licence Class A includes bombardiers; licence Class R includes skidoos.
[3] Licence Class A includes whitefish boats and bowpickers; licence Class B includes skiffs.
[4] Information based on the 1982 fishery observation records.

Tahle 10. Information on vehicle and vessel observations, number of persons and number of nets used in the Great Slave Lake commercial fishery, winter 1983-84 and summer 1984.

WINTER FISHERY[1] (November - May)

Licence Class[2]	Max. Licences Available	No. Licences Issued	No. of Vehicles Producing	Total No. Persons	No. Persons Per Vehicle	No. Nets Per Vehicle
A	32	20	17	4$?	2.5	30
8	30	10	6	8	1.3	15
Total	62	3(I	23	50		

SUMMER FISHERY (June - October)

Licence Class[3]	Max. Licences Available	No. Licences Issued[1]	No. of Vessels Producing[1]	Total No. Persons[4]	No. Persons Per Vessel[4]	No. Nets Per Vessel[4]
A	28	23	18	82	4.3	71
R	80	59	36	53	2.3	24
Total	108	82	54	135		

[1] Information ohtained from Field Services records, Hay River.
[2] Licence Class A includes bombardiers; licence Class 8 includes skidoos.
[3] Licence Class A includes whitefish boats and howpickers; licence Class B includes skiffs.
[4] Information based on the 1982 fishery observation records.

Table 11. Number of vessel deliveries and whitefish landings (kg round weight) by weekly intervals [illegible]

Week Ending	26	3	10	17	24	31	7	14	21	28	4	11	18	25	2	9	16	23	Total
											September				October				
Area IE																			
Class A		2	3	5	0	6	6	4	4	4	4	1	6	1	2	2	5	4	59
Class B		5	9	2	6	5	1	0	1	5	6	3	5	7	3	2	10	6	76
Production		1 353	1 473	7 025	1 002	4 794	6 979	2 273	3 680	3 177	2 723	358	1 669	1 146	967	1 549	7 896	3 206	51 270
Area IW																			
Class A	2	15	12	6	2	0	0	1	2	2	4	3	3						52
Class B	2	6	3	5	5	4	6	6	2	5	0	0	0						44
Production	1 751	8 029	11 430	10 665	3 171	3 436	3 377	6 530	1 932	2 658	3 988	2 274	2 631						61 872
Area II																			
Class A				7	9	18	19	26	27	27	20	23	9	17					202
Class B				0	0	0	0	0	0	0	0	0	0	0					0
Production																			153 096
Area III																			
Class A	0	1	2	1	4	0	0	0	0	0	0	0	0	0			0	0	8
Class B	2	2	3	2	4	4	7	5	5	7	4	4	4	1			4	5	63
Production	462	1 471	3 136	896	4 248	1 369	1 764	701	932	1 761	794	792	762	179			946	1 774	21 987
Area IV																			
Class A			2		5	27	23	18	26	34	18	23	8	37	9	3			233
Class B			0		2	12	15	16	7	13	10	8	2	10	4	1			100
Production			530		3 708	19 261	35 422	13 054	18 861	18 861	14 160	16 084	6 995	26 655	10 531	1 927			186 049
Area V																			
Class A							10	20	14	18	8	15	14	23	4	11			137
Class B							0	1	4	6	2	9	11	15	2	4			54
Production											743	13 128	12 864	20 470	4 732	6 391			125 882
All areas																			
Class A	2	18	19	19	20	51	58	69	73	85	54	65	40	78	15	16	5	4	691
Class B	4	13	15	9	17	25	29	29	19	35	22	24	22	33	9	7	14	11	337
Production	2 213	10 853	16 569	19 990	16 189	35 800	69 192	57 356	72 249	79 123	39 549	48 903	28 986	63 274	16 230	9 867	8 842	4 980	600 156

Table 12. Number of vessel deliveries and whitefish landings (kg round weight) by weekly interval for each administrative area, [illegible]

Week Ending		June				July					August				September					October			
		3	10	17	24	1	8	15	22	29	5	12	19	26	2	9	16	23	30	7	14	21	Total
Area IE																							
	Class A	0	0	2	9	4	4	5	8	10	6	8	6	5	2	4	4	6	4	4	1		92
	Class B	2	4	17	8	5	7	7	3	5	8	8	15	9	1	5	1	5	5	12	1		128
	Production	551	488	1 528	7 106	3 884	4 079	2 226	3 091	6 423	5 680	11 453	5 275	4 321	1 813	702	3 497	3 518	1 521	7 143	974		75 273
Area IW																							
	Class A		1	11	12	6	3	5	8	9	15												70
	Class B		8	10	33	3	1	1	0	0	0												46
	Production	[illegible]																					
Area II																							
	Class A					5	6	26	20	21	30	20	19	13	13								173
	Class B					0	0	0	0	0	6	7	0	0	0								13
	Production					581	2 484	7 515	25 337	24 894	31 543	17 778	13 627	8 314	7 475								[illegible]
Area III																							
	Class A			0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0			1
	Class B			6	19	10	7	10	9	4	3	3	2	1	1	1	3	3	4	4			90
	Production			1 572	2 514	1 841	915	3 086	1 778	731	420	1 782	507	1 266	339	124	1 317	2 023	992	937			22 144
Area IV																							
	Class A							7	13	15	21	10	15	10	19	20	46	9	36	1			222
	Class B							16	31	15	11	12	9	7	6	6	11	2	19				145
	Production							6 866	15 488	12 455	12 613	9 647	10 796	5 472	13 420	17 492	38 447	9 959	44 464	1 193			198 312
Area V																							
	Class A							2	7	3	5	2	2	2	1	7	57	18	49				155
	Class B							0	0	0	0	0	0	0	0	0	0	0	0				0
	Production							842	3 432	2 852	8 707	2 812	3 040	1 579	695	7 237	39 787	11 649	26 124				108 756
All areas																							
	Class A	0	1	13	21	15	13	46	56	58	77	40	42	30	35	31	107	33	89	5	1		713
	Class B	2	12	33	50	18	15	34	43	24	28	30	26	17	8	12	15	10	28	16	1		422
	Production	551	3 097	21 182	32 499	14 251	9 622	24 329	59 001	59 001	82 356	43 472	33 245	20 952	23 742	25 555	83 048	27 149	73 101	9 273	974		646 400

abl≤ 3. Total whitefish production, estimates for total number of nets used and CPUE by weekly interval for all areas, summer 1983.

Week Ending	Production kg round wt)	No. of nets used[1] (91 m each)	CPUE (kg/91 m/24 h)[2]
June 26	2 213	212	10.4
Total	2 213	212	0.4
July 3	10 853	1 540	7.0
10	16 569	1 646	10.1
17	19 990	1 550	12.9
24	16 189	1 752	9.2
31	35 800	4 174	8.6
Total	99 401	10 662	9.3
August 7	69 192	4 756	14.5
14	57 356	5 570	10.3
21	72 240	5 706	12.7
28	79 123	6 850	11.6
Total	277 911	22 882	12.1
September 4	39 549	4 348	9.1
11	48 903	5 194	9.4
18	28 986	3 312	8.8
25	63 274	6 300	10.0
Total	180 712	19 154	9.4
October 2	16 230	1 254	12.9
9	9 867	1 296	7.6
16	8 842	594	14.9
23	4 980	472	10.6
Total	39 919	3 616	11.0
Season Tota	600 56	56 526	10.6

[1] Refer to materials and methods for calculation.
[2] Round weight.

Table 14. Total whitefish production, estimates for tota number of nets used and CPE by weekly interval for all areas, summer 1984.

Week Ending	Production (kg round wt)	No. of nets used[1] (91 m each)	CPUE (kg/91 m/24 h)[2]
June 3	551	36	15.3
10	3 097	287	10.8
17	21 182	1 517	14.0
24	32 499	2 391	13.6
Total	57 329	231	3 5
July 1	14 251	1 389	10.3
8	9 622	1 193	8.1
15	24 329	3 878	6.3
22	59 001	4 750	12.4
29	59 001	4 550	13.0
Total	≤≤ 2°4	15 760	10.5
5	82 356	5 971	13.8
12	43 472	3 380	12.9
19	33 245	3 450	9.6
26	20 952	2 436	8.6
Total	025	15 237	11.
September 2	23 742	2 629	9.0
9	25 555	2 417	10.6
16	83 048	7 867	10.6
23	27 149	2 523	10.8
30	73 101	6 823	10.7
Total	232 595	22 259	10.4
October 7	0	0	
14	10 247	643	15.9
21	0	0	
Total	10 247	643	15.9
Season Tota	646 400	58 130	11.1

[1]Refer to materials and methods for calculation.
[2]Round weight.

Table 15. Total whitefish production, estimates for total number of nets used and CPUE by weekly interval for Area IE, sunsaer 1983.

Meek Ending	Product ion (kg round wt)	No. of nets used [1] (91 m each)	CPUE (kg/91 m/24 h)[2]
July 3	1 353	228	5.'3
10	1 473	366	4.0
17	7 025	402	17.5
24	1 002	96	10.4
31	4 794	524	9.1
Total	15 647	1 616	9.7
August 7	6 979	460	15.2
14	2 273	296	7.7
21	3 680	312	11.8
28	3 177	376	8.5
Total	16 109	1 444	11.2
September 4	2 723	392	6.9
11	35R	122	2.9
18	1 669	524	3.2
25	1 146	186	6.2
Total	5 896	1 224	10.5
Octoher 2	967	196	4.9
9	1 549	180	8.6
	7 896	530	14.9
23	3 206	392	8.?
Total	13 618	1 298	10.5
Season Total	51 270	5 582	9.2

[1] Refer to materials and methods for calculation.
[2] Round weight.

Tahle 16. Total whitefish production, estimates for total numher of nets used and CPUE by weekly interval for Area IE, summer 1984.

Week Ending	Production (kg round wt)	No. of nets used [1] (91 m each)	CPUE (kg/91 m/24 h)[2]
June 3	551	36	15.3
10	488	72	6.8
17	1 528	448	3.4
24	7 106	783	9.1
Total	9 673	1 339	7.2
July 1	3884	374	10.4
R	4 079	410	9.9
15	2 226	481	4.6
22	3 091	622	5.0
29	6 423	800	8.0
Total	119 703	12 687	7.3
August 5	5680	570	10.0
12	11 453	712	16.0
19	5 ?75	696	7.6
26	4 321	517	8.4
Total	126 729	12 495	10.7
September 2	1 813	160	11.3
9	70?	374	1.9
16	3 497	302	11.6
23	3 518	516	6.8
30	1 521	374	4.1
Total	11 051	1 726	6.4
October 7	0	0	
14	7 143	500	14.3
21	974	89	10.9
Total	8 117	589	13.8
Season Total	75 273	R 836	8.5

[1] Refer t. materials and methods for Calculation.
[2] Round weight.

Tahle 17. Total whitefish production, estimates for total numher of nets used and CPUE hy weekly interval for Area IW. sumner 1983.

Meek Ending	Production (kg roundwt)	No. of nets used' (91m each)	CPUE (kg/91 m/24 h)[2]
June 26	1 751	180	9.7
Total	1 751	180	9.7
July 3	8 029	1 206	6.7
10	11 430	936	12.2
ii	10665	5?4	20.4
24	3 171	228	13.9
31	3 436	64	53.7
Total	36 731	2 958	12.4
August 7	3 377	96	35.2
14	6 530	170	38.4
21	1 932	180	10.7
28	2 658	228	11.7
Total	14 497	674	21.5
September 4	3 988	296	13.5
11	2 274	222	10.2
18	2 631	222	11.9
Total	8 893	740	12.0
Season Total	61 872	4 552	13.6

[1] Refer to materials and methods for calculation.
[2] Round weight.

Table 18. Total whitefish production, estimates for total number of nets used and CPUE by weekly interval for Area 114, sumner 1984.

Week Ending	Production (kg round wt)	No. of nets used' (91 m each)	CPUE (kg/91 m/24 h)[2]
June 10	2609	215	12.1
17	18082	961	18.8
24	22879	1266	18.1
Total	43570	2442	17.8
Julyl	6945	480	14.5
8	2144	231	9.3
15	3794	373	10.2
22	9875	568	17.4
29	11646	639	18.2
Total	34404	2291	15.0
August5	23393	1065	22.0
Total	23393	1065	22.0
Season Total	101 367	5 798	17.5

[1] Refer to materials and methods for calculation.
[2] Round weight.

Table 19. Total whitefish production, estimates for total number of nets used and CPUE by weekly interval for Area II, summer 1983.

Ueek Ending	Production (kg round wt)	No. of nets used[1] (91m each)	CPIIE (kg/91 m/24 h)[2]
July 17	1 404	518	2.7
24	4060	666	6.1
31	6 940	1 332	5.2
Total	12404	2 516	4.9
August 7	13466	1 406	9.6
14	20 721	1 924	10.8
21	35 479	1 998	17.8
28	26 729	1 998	13.4
Total	96 395	7 326	13.2
September 4	9 141	1 4un	6.2
11	16 267	1 702	9.6
18	4 065	666	6.1
25	14 824	1 258	11.8
Total	44 297	5 106	8.7
Season Total	153 096	14 948	10.2

[1] Refer to materials and methods for calculation.
[2] Round weight.

Tahle 20. Total whitefish production, estimates for total number of nets used and CPIIE by weekly interval for Area II, summer 1984.

Week Ending	Production (kg roundwt)	No. of nets used' (91m each)	CPUE (kg/91 m/24 h)[2]
July 1	1 581	355	4.5
8	2484	426	5.8
15	7 515	1 846	4.1
22	25 337	1 420	17.8
29	24 894	1 491	16.7
Total	61 811	5 538	11.2
August 5	31 543	2 238	14.1
12	17 778	1 546	11.5
22	13 627	1 349	10.1
29	8 314	923	9.n
Total	71 262	6 056	11.8
September 2	7475	%?3	8.1
Total	7475	923	8.1
Season Total	140 548	12 517	11.2

[1] Refer to materials and methods for calculation.
[2] Round weight.

Table 21. Total whitefish production, estimates for total numher of nets used and CPUE by weekly interval for Area 111, summer 1983.

Ueek Ending	Production (kg round wt)	No. of nets used[1] (91m each)	CPUE (kg/91 m/24 h)[2]
JuneZ6	462	32	14.4
Total	462	32	14.4
July 3	1471	106	13.9
10	3136	196	16.0
17	896	106	8.5
24	4248	360	11.8
31	1 369	64	?1.4
Total	11 120	832	13.4
August 7	1 164	112	15.8
14	701	80	8.8
21	932	80	11.7
28	1 761	112	15.7
Total	5 158	384	13.4
September 4	794	64	12.4
11	792	64	12.4
18	762	64	15.9
25	179	16	11.2
Total	2 527	208	12.2
October 2			
9			
16	946	64	14.8
23	1 774	80	22.2
Total	2 720	144	18.9
Season Total	21 987	1 600	13.7

1 Refer t. materials and methods fOr calculation.
[2]Round weight.

Tahle Z?. Total whitefish production, estimates for total numher of nets used and CPUE by weekly interval for Area 1[1, summer 1984.

Ueek Ending	production (kg round wt)	No. of nets used[1] (91 m each)	CPUE (kg/91 m/24 h)[2]
June17	1577	108	14.6
24	2514	34?	7.4
Total	4086	450	9.1
Julyl	1841	180	10.2
8	915	126	7.3
15	3086	251	12.3
22	1 778	162	11.0
29	731	72	10.2
Total	8 351	791	i n i
August 5	420	54	7.8
12	1 782	54	33.0
19	507	36	14.1
26	1 266	18	70.3
Total	3 975	162	24.5
September 2	339	18	18.8
9	124	18	6.9
16	1 317	54	24.4
23	2023	54	37.5
30	992	72	13.8
Total	4 795	7 X	22.2
October 7	n	0	
14	937	72	13.0
Total	937	72	13.0
Season Total	22 144	1 691	13.1

[1] Refer to materials and methods for calculation.
[2] Round weight.

Table 23. Total whitefish production, estimates for total number of nets used and CPUE by weekly interval for Area IV, summer 1983.

Week Ending	Production (kg round wt)	No. of nets used[1] (91 m each)	CPUE (kg/91 m/24 h)[2]
July 10	530	146	3.6
17	0	0	
24	3 708	402	9.2
31	19 261	2 190	8.8
Total	23 499	2 740	8.[illegible]
August 7	35 422	1 942	18.2
14	13 054	1 588	8.2
21	18 861	2 036	9.5
28	18 861	2 724	6.9
Total	86 198	8 290	10.4
September 4	14 160	1 492	9.5
11	16 084	1 830	8.8
18	6 995	624	11.2
25	26 655	2 898	9.2
Total	63 894	6 844	9.3
October 2	0 531	730	14.4
9	1 927	238	8.1
Total	2 458	968	2.9
Season Total	049	8 [illegible]2	9.9

[1] Refer to materials and methods for calcu at on.
[2] Round weight.

Table 24. Total whitefish production, estimates for total number of nets used and CPUE by weekly interval for Area IV, summer 1984.

Week Ending	Production (kg round wt)	No. of nets used[1] (91 m each)	CPUE kg/91 m/24 h)[2]
July 15	6 866	785	8.7
22	15 488	1 481	10.4
29	12 455	1 335	9.3
Total	34 809	3 601	9.7
August 5	12 613	1 689	7.5
12	9 647	926	10.4
19	10 796	1 227	8.8
26	5 472	836	6.5
Total	38 528	4 678	8.2
em 2	13 420	1 457	9.2
9	17 492	1 528	11.4
16	38 447	3 464	11.1
23	9 959	675	14.8
30	44 464	2 898	15.3
Tota	123 782	10 022	12.4
October 7	0	0	
4	1 193	71	16.8
Total	1 193	71	16.8
Season Total	198 312	18 372	10.8

[1] Refer to materials and methods for calculation.
[2] Round weight.

Tahle 25. Total whitefish production, estimates for total number of nets used and CPUE by weekly interval for Area V, summer 1983.

Week Ending	Production (kg round wt)	No. of nets used[1] (91 meach)	CPUE (kg/91 m/24 h)[2]
August 1	8 184	740	11.1
14	14 077	1 496	9.4
21	11 356	1 100	10.3
28	25 937	1 428	18.2
Total	59 554	4 764	12.5
September 4	8 743	624	14.0
11	13 128	1 254	10.5
18	12 864	1 212	10.6
25	20 470	1 942	10.5
Total	55 205	5 032	11.0
October 2	4 732	328	14.4
9	6 391	878	7.3
Total	11 123	1 206	9.2
Season Total	125 882	11 002	11.4

1 Refer t. materials and methods for calculation.

[2]Round weight.

Tahle 26. Total whitefish production, estimates for total numher of nets used and CPUE by weekly interval for Area V, summer 1984.

Week Ending	Production (kg round wt)	No. of nets used[1] (91 meach)	CPUE (kg/91 m/24 h)[2]
July 15	842	142	5.9
2?	3 432	497	6.9
29	2 852	213	13.4
Total	7 126	852	8.4
August 5	8 707	355	24.5
12	2 812	142	19.8
19	3 040	142	21.4
26	1 579	142	11.1
Total	16 138	781	20.7
Septemher 2	695	71	9.8
9	7 237	497	14.6
16	39 787	4 047	9.R
23	11 649	1 278	9.1
30	26 124	3 479	7.5
Total	85 492	9 372	9.1
Season Total	108 756	11 005	9.9

1 Refer t. materials and methods fOr calculation.

[2]Round weight.

Table 27. Percent cullage of lake whitefish by nights nets down for areas IW and IE of Great Slave Lake during winter fishery observations, 1983-1984 and 1984-1985.

Area	Licence Class	No. of Observations	No. Nights Nets Down	40. Nets Used	Whitefish Caught		
					Total	No. culled	% Culled
IW (1983-84)	A	1	3	11	148	0	0.0
		1	4	4	177	15	8.5
		1	6	8	233	72	30.9
IE (1983-84)	A	1	3	10	208	1	0.5
		2	4	7	302	25	8.3
IW (1984-85)	A	2	2	10	174	1	0.6
		5	3	Z?	425	2	0.5
IE (1984-85)	A	3	3	13	198	2	1.0
		1	4	4	1?7	7	5.5
Combined by number of nights down		2	2	10	174	1	0.6
		11	3	56	979	5	0.5
		3	4	15	606	47	7.8
		1	6	8	233	72	30.9

Table 28. Summary information from winter fishery observations on Great Slave Lake, N.W. T. for 1983-1984 and 1984-1985.

Area	1983-1984			1984-1985		
	No. of Observations	No. of Nets Used	No. Fishing Days	No. of Observations	No. of nets Used	No. Fishing Days
IW	3	23	13	7	32	18
IE	3	17	10	4	17	13
Total	6	4(I	23	11	49	31
Mean no. nets fished/bombardier		39.2			49, 8	
Mean no. days fished between lifts		3.8			2 8	
Mean no. nets liftedlday		10.3			17.8	
Depth of net (meshes)		8-40			16-80	
Mean No. personslbombardier		3.2			3.4	
% 139 mm nets used		0.0			8.2	

Table 29. Species composition and catch per unit effort (CPUE) for Area IW and Area IE from winter fishery observations, 1983-1984 and 1984-1985.

	Area IW 1983-84 Fish Caught				Area IW 1984-85 Fish Caught				Area IE 1983-84 Fish Caught				Area IE 1984-85 Fish Caught				Total Fish Caught			
			CPM				CPUE				CPUE				CPUE				CPUE	
	No.	% of Total	No.	Wt[3]	No.	% of Total	No.	Wt	No.	% of Total	No.	Wt	No.	% of Total	No.	Wt	No.	% of Total	No.	Wt
Lake Whitefish	550	70.5	5.1	5.6	599	68.8	7.2	7.9	510	56.5	9.1	10.0	325	64.0	5.9	6.5	1992	64.8	6.6	7.2
lake Trout	0				12	1.4	0.1		5	().6	0.1		n				17	0.6	0.1	
Walleye	2	0.3	<0.1		1	0.1	<0.1		0				0				3	0.1	<0.1	
Northern Pike	78	9.8	0.1		152	17.5	1.8						0				230	7.5	0.8	
Inconnu	3	0.4	<0.1		5	0.6	0.1		10!	11.4	1.8		14	2.8	0.3		125	4.1	0.4	
Cisco	7	0.9	0.1		17	2.0	0.2		49	5.4	0.9		27	5.3	0.5		100	3.3	0.3	
Longnose Sucker	66	R.3	0.6		4	0.5	0.1		94	10.4	1.7		84	16.5	1.5		?48	8.1	0.8	
Burbot	78	9.8	0.7		81	9.3	1.0		141	15.6	2.5		58	11.4	1.1		35R	11.6	1.2	
Total	792		7.3		R71		10.5		9n2		16.1		508		9.2		3073		in.1	
Meters of Net[1]	9919				7553				5096				5nn5				27573			

[1] Number of nets observed x 91 m x number of days nets were set..
[2] Number of fish/91 m of net/24 hour period.
[3] Round weight of fish (kg)/91 m of net/24 hour period.
[4] Mean round weight converted from dressed weight of 1983 winter plant samples.

Table 30. Weight composition by market weight interval for lake whitefish from commercial plant samples on Great Slave Lake, 1983.

MARKET WEIGHT INTERVAL (DRESSED)	AREA IE NO.	%	AREA IW NO.	%	AREA X1 NO.	%	AREA 111 NO.	%	AREA IV NO.	%	AREA V NO.	%	TOTAL NO.	%
NO MARKET (< 0.45 kg)	2	-	-	-	2	-	-	-	11	2	1	-	16	-
SMALL (0,450.69 kg)	20	3	4	-	23	5	19	9	53	8	7	2	126	5
MEDIUM (0.70-1.39 kg)	560	89	372	89	360	66	166	88	519	83	377	90	2376	67
LARGE (1.401.80 kg)	41	7	39	9	29	7	3	1	31	5	27	6	170	6
JUMBO (> 1.80 kg)	6	-	5	1	5	1	3	1	13	2	7	2	39	1
TOTAL	629		420		419		213		627		419		2727	

Table 31. Age composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1983.

AGE (yr)	NO.	%	FORK LENGTH (mm) MEAN	SO.	DRESSED WEIGHT (g) MEAN	SO.
5	3	0.1	3S6	28.6	600	100.0
6	24	1.0	367	34.5	763	229.2
7	98	3.9	393	28.1	611	167.1
8	248	9.9	399	29.6	641	184.s
9	326	13.1	409	28.7	906	199.6
10	399	15.9	413	27.3	929	195.4
11	394	15.7	422	26.3	984	210.0
12	406	16.2	428	27.6	1012	221.7
13	341	13.6	439	26.I	1095	226.6
14	156	6.2	447	31.6	1176	304.7
15	63	2.5	472	34.9	1374	390.4
16	24	1.0	494	53.1	1s13	654.8
17	14	0.6	481	39.5	1407	325.1
16	8	0.3	515	43.0	1750	461.8
20	1		521		1950	
21	1		558		2300	
TOTAL	2506					
MEAN			423	34.8	994	269.2
MEAN AGE 10.9						

Table 32. Age composition of commercial whitefish for each seasonal Period from Area IW, 1963.

AGE (yr)	WINTER NO.	MEAN FORK LEN. (mm)	MEAN OR. WT. (9)	SPRING NO.	MEAN FORK LEN. (mm)	MEAN OR. WT. (g)	FALL NO. (w#n)	MEAN FORK LEN.	MEAN OR. WT. (9)	TOTAL No.	FORK LENGTH (mm) NEAN	so.	DRESSED WEIGHT(9) MEAN	so.
5	-			1	381	700	-	-	-	1	361		700	
6	2	371	725	7	413	971	-	-	-	9	404	36.0	917	240.7
7	6	389	617	12	410	S17	-	-	-	18	403	23.4	683	153.4
8	18	405	692	20	429	1025	-	-	-	38	417	19.9	962	136.7
9	27	414	933	20	436	1115	-	-	-	47	423	23.2	1o11	179.7
10	53	412	927	28	445	1132	-	-	-	81	423	26.7	996	173.6
11	39	424	1012	20	450	1200	-	-	-	59	433	26.3	1075	211.2
12	17	430	1032	2s	459	1264	-	-	-	42	446	31.7	1170	243.7
13	24	437	1063	27	46s	1267	-	-	-	51	452	26.1	1171	187.4
14	11	442	1166	10	471	1425	-	-	-	21	4S6	26.3	1290	376.7
15	4	446	1175	7	476	1450	-	-	-	11	467	31.7	1350	277.5
1$				3	506	1617	-	-	-	3	508	45.6	1617	472.6
17	1	403	950	--	-	-	--		-	1	403		950	
16				1	536	1700	--		-	1	538	-	1700	
TOTAL	202			181						363				
MEAN		420	979		448	1161		-	-		433	32.0	1074	242.5
MEAN AGE	10.6			10.7						10.7				

Table 33. Age composition of commercial whit-fish for each seasonal period from Area IE, 1983.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. wT. (9)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. wT. (9)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN DR. wT. (9)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) so.	TOTAL ORESSED WEIGHT(g) MEAN	TOTAL ORESSED WEIGHT(g) so.
6	1	342	450				2	377	700	3	365	22.1	617	152.8
7	3	382	6s3	2	366	625	11	400	891	16	392	21.6	819	175.0
a	13	390	796	20	398	828	33	396	861	66	397	22.1	638	140.?
9	24	396	833	18	399	817	26	412	992	68	403	18.7	890	160.4
10	38	403	856	31	412	902	26	425	1054	95	412	21.9	926	192,1
11	46	412	899	30	428	1045	40	426	1074	116	421	20.5	997	181.6
12	43	424	972	40	441	1143	41	426	1055	124	431	21.3	1054	221.3
13	25	431	1024	32	446	1244	19	432	1069	76	43a	23.8	1133	250.3
14	8	437	1150	13	45s	1365	4	459	1175	25	450	26.6	1266	266.4
15	1	463	1150	3	495	1817	1	434	1150	5	477	39.8	1550	601.0
16				1	513	1000		.	.	1	513	-	1000	
TOTAL	202			190			203			595				
MEAN		412	914		420	1061		41s	1013		420	27.5	994	236.0
MEAN AGE	10.9			11.1			10.3			10.8				

Table 34. Age composition of commercial whitefish for each seasonal period from Area 11, 1983.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. wT. (9)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. wT. (9)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN oR. WT. (9)	TOTAL NO.	TOTAL FORK LENGTH(MM) MEAN	TOTAL FORK LENGTH(MM) SD.	DRESSED wEIGHT(Q) MEAN	DRESSED wEIGHT(Q) so.
5	--		-	1	325	500	1	363	600	2	344	26.9	550	70.7
6	.	.	-	4	351	550	7	3s3	793	11	377	2s.8	705	160.9
7	-	-	-	29	387	764	27	403	865	56	395	26.3	613	180.0
8	-	-	-	26	39s	796	41	416	943	69	400	26.4	663	170.4
9	-	-	-	61	409	696	45	437	1078	106	421	27.7	973	199.2
10	-	-	-	30	413	923	33	439	1103	63	426	26.2	1017	227.2
I	-	-	-	19	424	963	29	457	1271	48	444	30.4	1149	305.4
12	-	-	-	10	432	1065	11	463	1232	21	448	36.8	1152	303.1
13	-	-	-	8	450	1163	2	446	1175	10	449	15.1	1165	118.0
14	--		-	--		-	1	518	2Do0	1	516	-	2000	
15	--		-	--		-	1	514	1600	1	51A	-	1800	
TOTAL				190			196			388				
MEAN		.	-		407	883		432	1059		420	33.8	973	256,8
MEAN AGE				9.1			9.1			9.1				

Table 35. Age composition Of commercial whitefish for each seasonal period from Area 111. 1983.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. wT. (9)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. wT. (9)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN DR. wT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) so.	TOTAL ORESSEO WEIGMT(g) MEAN	TOTAL ORESSEO WEIGMT(g) so.
6		-	-	7	382	7!s0	--		-	7	362	23.4	750	141.4
9	--		-	17	385	774	--		-	17	365	20.7	774	141.6
10	--		-	42	396	040	--		-	42	396	22.6	840	153.1
11	--		-	30	405	667	--		-	3D	405	21.5	667	151.0
12	--		-	55	405	659	--		-	55	40s	15.5	059	111.0
13	-	-	-	33	423	1012	-	-	-	33	423	25.1	1012	161.6
14	-	-	-	7	432	1006	--		-	7	432	26. !	1066	254.5
15	-	-	-	5	46A	1550	--		-	5	464	41.0	1550	548.9
TOTAL	-			196						196				
MEAN		-	-		406	S96		-	-		406	26.4	696	213.0
MEAN AGE				11.3						11.3				

Table 36. Age composition of commercial whitefish for each seasonal period from Ares IV, 1963.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (g)	SPRING NO.	SPRING MEAN PORK LEN. (mm)	SPRING MEAN OR. wT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN DR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SO.	TOTAL ORESSEO WEIGHT(g) MEAN	TOTAL ORESSEO WEIGHT(g) so.
6				1	419	950	-	-		1	419		950	
7	3	326	467	3	405	667	1	34s	450	7	363	44.2	636	241.0
8	23	360	620	15	421	947	1s	376	679	57	381	36.3	725	212.6
9	3s	379	716	15	429	1010	24	389	76S	74	392	30.9	791	166.6
10	50	389	774	23	434	1046	16	399	631	89	403	28.9	854	173.3
11	32	397	606	23	449	1070	30	404	843	85	413	2s.1	691	159.7
12	20	404	626	23	454	1122	46	411	890	89	421	29.2	936	178.7
13	20	425	998	33	470	1242	40	422	988	93	440	31.6	1080	235.0
14	12	426	1008	24	476	1344	24	43!S	1096	60	451	36.9	1176	324.3
15	5	466	1230	11	506	1637	1	472	1300	17	493	39.7	1496	492.1
16	2	466	1500	4	577	2563	-	-		6	547	71.0	2206	948.4
17				1	529	1900	-	-		1	529	-	1900	
16				3	520	1667	1	496	1500	4	515	42.3	1775	499.2
TOTAL	202			179			202			563				
MEAN		395	607		459	1209		409	691		419	44.1	959	328.6
WEAN AGE	10.6			11.8			11.4			11.3				

Table 37. Age composition of commercial whitefish for each seasonal period from Area V. 1983.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. wT. (o)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) so.	TOTAL DRESSED WEIGHT(g) MEAN	TOTAL DRESSED WEIGHT(g) so.
7	--		-	1	347	!500				1	347		500	
8	--		-	6	406	600	5	399	850	11	403	16.2	623	117.0
9	--		-	9	409	676	7	410	900	18	410	19.7	666	173.7
10	-	-	-	4	420	836	25	419	920	29	419	23.2	909	168.5
11	--		-	17	414	897	39	421	932	56	419	16.1	921	101.7
12	--		-	32	422	947	43	435	1066	75	430	22.9	1015	166.9
13	-	-	-	35	427	1004	43	443	1095	78	435	27.8	1054	226.7
14	-	-	-	2!	433	1045	21	436	1066	42	435	23.5	1065	192.7
15	--		-	17	453	1174	7	470	1266	24	456	23.3	1206	177.1
16	-	-	-	10	471	1260	4	457	1150	14	467	24.0	1229	212.6
17	--		-	8	492	1444	4	464	1325	12	463	32.9	1404	269.6
16	--		-	2	506	1600	1	514	1600	3	506	58.7	1733	660.2
20	--		-	1	521	1960				1	521		1950	
21	-	-	-				1	556	2300	1	558		2300	
TOTAL				163			200			363				
MEAN		-	-		433	1036		434	1042		433	30.0	1039	24S.5
MEAN AGE				12.9			12.1			12.5				

Table 38. Length composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1983.

LENGTH INTERVAL (mm)	NO.	%	FORK LENGTH(MM) MEAN	FORK LENGTH(MM) SD.	DRESSED WEIGHT (g) MEAN	DRESSED WEIGHT (g) SD.
310-319	2		315	3.5	400	0.0
320-329	7	0.3	324	2.5	443	45.0
330-339	13	0.5	333	3.3	488	36.3
340-349	20	0.7	344	2.5	510	55.3
350-359	16	0.7	355	2.6	606	46.2
360-369	47	1.7	364	2.2	644	61.3
370-379	83	3.0	374	3.0	687	57.3
380-389	168	6.2	385	2.7	760	67.7
390-399	245	9.0	394	2.8	609	66.8
400-409	371	13.6	404	2.9	870	75.5
410-419	337	12.4	414	2.8	923	78.6
420-429	367	14.2	424	2.9	976	09.0
430-439	258	9.5	434	2.0	1052	84.2
440-449	220	8.1	444	2.8	1107	114.5
450-459	164	6.0	454	2.7	1183	119.8
460-469	130	4.6	464	2.7	1286	169.9
470-479	09	3.3	474	2.9	1362	127.7
480-489	55	2.0	484	3.0	1440	205.0
490-499	36	1.3	494	2.6	1430	216.6
500-509	32	1.2	503	2.3	1647	206.3
510-519	17	0.6	515	3.0	1653	246.5
520-529	10	0.4	524	2.6	1630	171.9
530-539	8	0.3	536	1.9	1968	294.9
540-549	1		540		2000	
550-559	2		559	0.7	2225	106.1
560-569	2		664	0.0	2400	70.7
570-579	1		578		2500	
600-609	1		601		3100	
610-619	1		613		2800	
620-629	1		623		3200	
640-649	1		648		3600	
TOTAL	2727					
MEAN			423	35.0	1000	269.1

Table 39. Length composition of commercial whitefish for each seasonal period from Area In, 1983.

LENGTH INTERVAL (mm)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN oil. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (g)	FALL NO.	FALL MEAN FORM LEN. (mm)	FALL MEAN GR. WT. 19)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL DRESSED WEIGHT(g) MEAN	TOTAL DRESSED WEIGHT(g) SD.
340-349				1	348	60D	-	-	-	1	348		600	
350-359	2	355	575				-	-	-	2	355	3.5	575	35.4
370-379	2	375	750	2	376	725	-	-	-	4	375	3.7	730	47.9
380369	12	365	796	2	384	700	-	-	-	14	3s5	2.3	782	09.0
390-399	21	394	833	7	3s3	850	-	-	-	28	394	2.9	03.9	66.1
400-409	43	404	895	13	403	a77	-	-	-	56	404	2.7	091	81.0
4!0-419	28	414	932	10	414	955	-	-	-	30	414	3.0	936	66.2
420429	31	425	977	20	425	1025	-	-	-	51	425	2.7	996	94.8
430-439	29	434	1076	29	434	1060	-	-	-	56	434	2.8	1068	76.5
440-449	13	444	1119	25	445	1134	-	-	-	38	444	2.9	1129	111.9
450-459	15	454	1177	25	454	lleo	-	-	-	40	454	2.6	1179	77.5
460469	12	465	1313	la	465	1256	-	-	-	30	465	2.9	1278	199.0
470-479	2	471	1250	14	473	1382	-	-	-	16	473	2.4	1366	99.5
460-469				16	484	1366	-	-	-	16	464	3.3	1388	117.6
490-499				12	494	1496	-	-	-	12	494	2.6	1496	160.6
500-509				7	S03	1586	-	-	-	7	503	2.7	1586	114.4
510-519				4	514	1813	-	-	-	4	514	4.4	1813	131.5
520-529				2	523	1700	-	-	-	2	523	4,2	1700	282.8
530-539				2	536	1675	-	-	-	2	536	2.0	1675	35.4
550-559				1	559	2150	-	-	-	1	559		2150	
TOTAL	210			210						420				
MEAN		420	982		450	1165	-	-	-		435	32.9	1083	242.7

Table 40. Length composition of commercial whitefish for each seasonal period from Area IE, 1983

LENGTH INTERVAL (mm)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (s)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (s)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (9)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	DRESSED WEIGHT(9) MEAN	DRESSED WEIGHT(9) so.
340-349	1	342	4s0	1	344	450		-	-	2	343	1.4	450	0.0
350-359	1	358	600	1	358	600				2	358	0.0	600	0.0
360369	2	365	625	2	361	725	4	365	666	8	364	2.5	661	65.1
370-379	8	373	663	9	374	676	2	372	675	19	374	2.8	671	69.4
380-389	15	385	747	10	3s4	770	13	384	765	38	384	2.6	759	47.7
390-399	38	394	79?	11	396	814	1s	395	647	62	395	2.7	612	75.0
400-409	3-I	404	074	31	405	861	36	404	917	104	404	2.9	665	85.6
410-419	26	414	930	20	415	938	29	415	990	77	414	3.0	955	98.7
420-429	33	424	962	31	424	981	44	424	1024	106	424	3.0	993	96.4
430-439	18	434	1039	23	434	1046	29	433	1102	70	434	2.9	1066	66.0
440-449	20	442	1140	17	445	1171	16	443	1156	55	443	2.7	1155	137.0
450-459	3	455	1083	14	455	1268	11	452	1250	26	454	2.7	1241	155.6
460-469	7	463	1207	13	463	1500	5	463	1360	25	463	2.4	1390	222.2
470-479	1	470	1500	10	474	1465	3	471	1567	14	473	2.4	1489	144.4
480489	-		-	6	484	1500				6	464	3.2	1500	388.6
490-499	-		.	3	493	1417				3	493	1.0	1417	464.6
500-s09				5	S02	17s0			.	5	502	0.9	1790	224.7
510-519				1	513	1000	1	517	1300	2	515	2.a	1150	212.1
S30-539				1	537	2500				1	537	-	2500	
TOTAL	210			209			210			629				
MEAN		413	916		429	1066		420	1014		420	27.5	996	238.4

Table 41. Length composition of commercial whitefish for each seasonal period from Area XI. 1963.

LENGTH INTERVAL (m)	WINTER No.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (!3)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. 10)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. [9]	TOTAL NO,	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) so.	ORE SsEo WEIGHT(g) MEAN	ORE SsEo WEIGHT(g) so.
320-329		-	-	2	327	475		-		2	327	2.1	475	35.4
340-349		-	-				3	345	500	3	345	0.6	500	So.o
350-359		-	-	2	351	575				2	351	1.4	57s	35.4
360-369		-	-	8	364	644	3	363	633	11	363	2.2	641	60.1
370-379		-	-	12	373	671	6	373	66a	20	373	3.0	67S	41.3
3ao-3a9		-	-	23	385	767	a	365	775	31	365	3.1	769	97.2
390-399		-	-	26	394	796	16	3a4	606	42	394	3.0	600	5a.4
400-409		-	-	38	405	a6a	22	404	a6a	ao	405	2.9	a79	64.0
410-419		-	-	37	414	916	26	415	912	63	415	2.7	914	65.0
420-429		.	-	27	424	943	19	423	950	46	424	3.1	946	69a
430-439		-	-	13	433	1065	16	434	1036	31	434	3.0	1048	91.7
440-449		-	-	14	444	1116	20	444	1098	34	444	2.8	1106	115.3
450-459		-	-	2	456	1150	14	455	1229	16	455	2.6	1219	103.I
460-469		-	-	5	4a3	1300	17	4a4	1271	22	464	2.4	1277	127.0
470-479		-	-	1	477	1250	12	474	1400	13	475	3.0	138a	117.5
4ao-469		-	-			-	10	4a4	1s40	10	464	3.3	1540	156.0
490-499		.	.			-	4	493	1363	4	493	1.3	1363	352.1
500-509		-	-			-	4	502	1600	4	502	2.6	1800	91.3
510519		-	-			-	2	515	1900	2	516	2.8	1s00	141.4
520-529		-	-			-	2	524	1750	2	524	1.4	1750	141.4
530-539		.	-			-	1	536	1750	1	536		1750	
TOTAL				210			209			419				
MEAN		-	-		406	aa7		432	1063		420	33.8	975	254.6

Table 42. Length composition of commercial whitefish for each seasonal period from Area III, 1983.

LENGTH INTERVAL (MM)	WINTER NO.	WINTER MEAN FORK LEN. (MM)	WINTER MEAN DR. UT, (G)	SPRING NO.	SPRING MEAN FORK LEN. (MM)	SPRING MEAN OR. WT. (G)	FALL NO.	FALL MEAN FORK LEN. (MM)	FALL MEAN OR. WT. (G)	TOTAL NO.	TOTAL FORK LENGTH(MM) MEAN	TOTAL FORK LENGTH(MM) SD.	TOTAL ORESSED WEIGHT(G) MEAN	TOTAL ORESSED WEIGHT(G) SD.
340-349	-	-	-	1	347	500	-	-	-	1	347	-	500	
350-3ss	-	-	-	6	354	650	-	-	-	6	354	1.8	650	44.7
360-343s	-	-	-	9	365	639	-	-	-	9	365	2.6	639	S4.6
310-379	-	-	-	7	374	714	-	-	-	7	374	3.6	714	69.0
380-389	-	-	-	34	364	762	-	-	-	34	364	2.8	762	53.7
390-399	-	-	-	23	394	617	-	-	-	23	394	3.0	617	70.1
400-409	-	-	-	44	404	673	-	-	-	44	404	3.3	673	75.8
410-4?9	-	-	-	35	414	910	-	-	-	35	414	2.7	Slo	74.6
420-429	-	-	-	26	424	1000	-	-	-	26	424	2.5	1000	e4.9
430-439	-	-	-	10	436	1070	-	-	-	10	436	2.4	1070	85.6
440-449	-	-	-	4	445	1100	-	-	-	4	445	2.9	1100	40.8
450-459	-	-	-	6	454	1200	-	-	-	6	454	3.1	!200	114.0
460-469	-	-	-	4	466	1338	-	-	-	4	466	2.1	1338	118.1
470-479	-	-	-	1	475	1600	-	-	-	1	475	-	1600	
480-489	-	-	-	1	480	1900	-	-	-	1	480	-	1900	
500-509	-	-	-	2	501	1975	-	-	-	2	501	1.4	1975	35.4
TOTAL				213						213				
MEAN		.	-		406	690		-	-		406	26.1	898	2G7.3

Table 43. Length composition of commercial whitefish for each seasonal period from Area IV, 1963.

LENGTH INTERVAL (MM)	WINTER NO.	WINTER MEAN FORK LEN. (MM)	WINTER MEAN OR. WT. (G)	SPRING No.	SPRING MEAN FORK LEN. (MM)	SPRING MEAN OR. WT. (G)	FALL NO.	FALL MEAN FORK LEN. (MM)	FALL MEAN OR. WT. (G)	TOTAL NO.	TOTAL FORK LENGTH(MM) MEAN	TOTAL FORK LENGTH(MM) SO.	TOTAL DRESSED WEIGHT(G; MEAN	TOTAL DRESSED WEIGHT(G; SD.
310-319	2	315	400	-		-	-			2	315	3.5	400	0.0
320-329	4	322	438	-		-	1	324	400	5	322	1.5	430	44.7
330-339	11	333	491	-	-	-	2	332	475	13	333	3.3	488	36.3
340-349	8	344	544	-		-	3	343	467	11	343	2.8	523	56,4
350-359	4	356	600	-		-	2	354	575	6	355	2.5	5B2	37.6
360-369	14	363	636	1	368	700	3	363	633	1a	364	1.7	639	36.6
370-379	21	374	693	-			10	373	665	31	374	2.6	690	53.9
380-389	28	384	750	-			11	386	773	39	365	2.6	756	51.5
390-399	22	394	600	4	394	725	39	394	797	65	394	2.8	794	59.6
400-409	2s	403	818	6	404	856	36	404	844	67	404	3.0	636	60.6
41O-419	21	414	695	14	415	916	37	414	901	72	414	2.7	903	70.2
420-429	17	424	953	26	424	944	33	424	1002	76	424	2.9	971	80.9
430-439	11	434	1009	17	434	1038	15	434	1050	43	434	2.7	035	78.3
440-449	10	443	1055	29	445	1047	e	444	1069	47	444	3.0	052	80.1
450-459	5	453	1170	24	454	1133	3	455	1267	32		2.4	152	105. 1
460-469	1	460	1250	19	463	1157	2	404	1225	22	463	2.6	202	110.7
470-479	2	472	1325	23	475	1257	2	471	1300	27	475	3.1	265	84.6
460-469	1	468	1300	9	404	1411	1	488	1650	11	464	3.0	1423	160.3
450-499	1	493	1650	a	493	1394	1	49e	1500	10	494	3.6	1430	120.6
500-509	1	503	15s0	11	504	1536				12	504	2.4	1538	165.3
510-519	1	510	1750	5	514	1640					515	3.0	1658	153.0
520-529				4	525	1666					S25	2.9	1888	170.2
530-539					534	2250	1	538	2050		536	2.8	2150	141.4
540-549					540	2000					540		2000	
570-579					57a	2500					578		2500	
600-609					601	3100					601		3100	
61o-619					613	2800					613		2800	
620-629					623	3200					623		3200	-
640-649				1	646	3600					648		3600	-
TOTAL	210			207			210			627				
MEAN		395	609		458	1203		409	892		420	43.9	967	327.7

Table 44. Length composition of commercial whitefish for each seasonal period from Area V. 1983.

LENGTH INTERVAL (MM)	WINTER NO.	WINTER MEAN FORK LEN. (MM)	WINTER MEAN WT. (G)	SPRING NO.	SPRING MEAN FORK LEN. (MM)	SPRING MEAN WT. (G)	FALL NO.	FALL MEAN FORK LEN. (NM)	FALL MEAN WT. (G)	TOTAL NO.	TOTAL FORK LENGTH(MM) MEAN	TOTAL FORK LENGTH(MM) SD.	TOTAL ORESSEO WEIGHT(G) MEAN	TOTAL ORESSEO WEIGHT(G) SD.
340-349	-	-	-	1	347	500	1	344	450	2	346	2.1	475	35.4
360-369	-	-	-	-	-		1	363	500	1	363		500	
370-379	-	-	-	1	379	7s0	1	378	6s0	2	379	0.7	700	70.7
380-389	-	-	-	7	384	707	5	384	720	12	384	2.4	713	74.2
390-399	-	-	-	14	395	829	11	396	000	25	395	2.1	816	67.3
400-409	-	-	-	25	405	836	15	405	857	40	405	2.7	844	50.9
410-419	-	-	-	28	416	909	24	414	910	52	415	2.7	910	66.4
420-42S	-	-	-	37	424	955	43	424	969	60	424	2.9	958	66.1
430-439	-	-	-	19	434	995	27	433	1044	46	433	2.4	1024	64.2
440-449	-	-	-	16	445	1100	26	445	1077	42	445	2.6	1066	94.5
450-459	-	-	-	19	453	1158	23	454	11s2	42	454	2.8	1155	130.6
460-469	-	-	-	15	464	1267	12	465	1267	27	465	2.3	1267	108.3
470-479	-	-	-	6	474	1369	10	474	1375	16	474	3.1	1372	62.6
480-489	-	-	-	6	485	1333	5	484	1410	11	484	2.4	1368	202.6
490-499	-	-	-	7	493	1400	-	-		7	493	3.0	1400	200.0
500-509	-	-	-	2	504	1525	-	-		2	S04	4.2	1S25	310.2
510-519	-	-	-	1	519	1600	2	S14		3	515	3.2	1600	0.0
520-529	-	-	-	1	521	1950	1	523	1900	2	522	1.4	1925	35.4
530-539	-	-	-	2	536	2000	-	-		2	536	2.8	2000	141.4
550-559	-	-	-	-	-		1	558	2300	1	558		2300	
S60-569	-	-	-	1	564	2450	1	564	2350	2	564	0.0	2400	70.7
TOTAL				210			20s			419				
MEAN		-	-		434	1042		434	104s		434	30.e	1043	2s2.1

Table 45. weight composition by market weight intervals for lake whitefish from commercial plant samples on Great Slave Lake, 1964.

MARKET WEIGHT INTERVAL (ORESSEO)	AREA IE NO.	AREA IE %	AREA IW NO.	AREA IW %	AREA 11 NO.	AREA 11 %	AREA 111 NO.	AREA 111 %	AREA IV NO.	AREA IV %	AREA V NO.	AREA V %	TOTAL NO.	TOTAL %
NO MARKET (< 0.45 kg)	8	2	-	-	5	-	1	-	1	-	-	-	15	-
SMALL (0.45-0.69 kg)	11	3	6	1	41	7	8	2	36	9	6	1	110	4
MEDIUM (0.70-1.35 kg)	321	77	326	76	504	60	383	92	353	84	381	91	2268	63
LARGE (1.40-1.60 kg)	64	15	77	18	54	9	24	6	21	5	27	6	267	10
JUMBO (> 1.60 kg)	14	3	11	3	24	4	2	-	5	1	6	1	62	2
TOTAL	416		420		628		418		416		420		2722	

Table 46. Age composition of whitefish for all areas combined from Great Slave Lake commercial fishery, 1964.

AGE (yr)	NO.	%	FORK LENGTH(mm) MEAN	FORK LENGTH(mm) SD.	ORESSEO WEIGHT (g) MEAN	ORESSEO WEIGHT (g) SD.
5	4	0.3	375	46.2	750	264.6
6	49	3.5	395	27.7	634	187.5
7	110	7.9	392	31.5	605	191.1
8	131	9.4	407	25.7	896	184.9
9	309	22.1	415	27.2	961	201.3
10	225	16.1	424	26.6	1026	230.4
11	163	13.1	429	25.6	1053	213.0
12	146	10.3	442	34.6	1142	316.6
13	106	7.7	446	31.4	.1204	302.6
14	79	6.6	455	28.6	1262	279.9
15	37	2.6	473	39.5	1464	450.0
16	14	1.0	461	39.1	1296	291.2
17	6	0.4	467	33.7	1456	307.3
19	1		506		1700	
TOTAL	1401					
MEAN			425	35.3	1035	264.5
MEAN AGE 10.2						

Table 47. Age Composition of commercial whitefish for each seasonal period from Area IW, 1984.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN DR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	DRESSED WEIGHT(g) MEAN	DRESSED WEIGHT(g) SD.
6	2	369	700	1	416	1000	--		-	3	384	30.6	600	160.3
7	14	397	818	10	416	965	--		-	24	399	21.5	879	146.6
8	21	406	910	0	439	1113	-	-	-	29	415	22.5	966	155.3
9	19	415	968	13	452	1212	--		-	32	430	29.1	1067	206.2
10	24	421	1017	16	458	1238	--		-	40	436	27.2	1105	199.6
11	14	431	1111	17	449	1226	--		-	31	441	26.1	1174	188.4
12	10	431	1115	15	481	1487	--		-	25	461	42.4	1338	334.3
13	4	484	1550	16	468	1328	-	-	-	20	471	18.5	1373	190.2
14	A	451	1275	6	482	1367	--		-	10	469	25.9	1330	194.7
15	1	472	1450	6	502	1706	--		-	7	498	26.0	1671	230.7
16	1	462	1500	4	506	1600	--		-	5	497	23.7	1580	75.8
17	--		-	2	518	1775	--		-	2	S18	4.2	1775	176.8
TOTAL	114			114						226				
MEAN		418	1015		461	1297		-	-		440	37.9	1156	285.4
MEAN AGE	9.7			11.1						10.4				

Table 46. Age composition of commercial whitefish for each seasonal period from Area IE, 1964.

AGE ["r)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (s)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (s)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (9)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) so.	DRESSED WEIGHT(g) MEAN	DRESSED WEIGHT(g) so.
5	-	-	-	-	-	-	1	313	400	1	313	-	400	
6	-	-	-	13	410	927	5	367	640	16	3S6	26.7	647	206.1
7	-	-	-	3	432	1067	14	37e	732	17	388	33.8	791	227.2
6	--		-	10	437	1155	9	389	767	19	414	31.9	971	256.8
9	-	-	.	15	426	1060	34	420	1022	49	422	23.5	1034	170.6
10	-	-	-	12	433	1106	25	422	1056	37	425	26.1	1073	197.4
11	-	-	-	13	441	1162	5	436	1200	10	440	23.4	1172	235.3
12	--		-	13	471	1400	8	434	1069	21	457	33.8	1274	269.7
13	--		-	6	474	1517	3	459	1350	9	469	16.5	1461	230.2
1A	-	-	-	9	480	1539	6	471	1494	17	475	26.1	1518	283.9
15	--		-	7	460	1550	3	502	1767	10	467	17.9	1615	261.9
TOTAL				101			115			216				
MEAN		-	-		445	1219		418	1024		431	3a.4	1115	319.0
MEAN AGE				10.3			9.6			10.0				

Table 49. Age composition of commercial whitefish for each seasonal period from Area 11, 1904.

AGE (y.]	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (9)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (9)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) so.	DRESSED WEIGHT(g) MEAN	DRESSED WEIGHT(g) so.
5	-	-	-	-	-	-	3	395	667	3	395	26.1	667	152.6
6	4	362	750	2	369	700	17	401	871	23	395	27.2	83S	180.6
7	26	375	679	4	3s3	638	29	410	900	59	391	33.9	76S	190,6
a	15	365	770	21	401	636	17	422	979	53	403	25.5	663	170,7
9	26	406	646	33	407	923	19	431	1037	76	412	26.9	926	177.1
10	15	411	683	16	43o	1084	15	449	1223	46	430	34.0	1064	302.7
11	11	426	1005	15	432	1067	8	434	1050	34	430	25.5	1043	229.3
12	4	433	1050	7	475	1486	4	464	1313	15.	461	35.8	1323	380.7
13	3	446	1163	6	462	1400	3	476	1450	?2	461	27.8	1356	272.9
14	--		-	1	471	1350	--		-	1	471	-	1350	
15	--		-	1	466	1450	--		-	1	466		1450	
1(	--		-	1	506	1700	--		-	1	506		1700	
TOTAL	104			107			115			326				
A4E#N		399	630		420	1015		424	1010		415	35.9	954	270.8
MEAN AGE	6.6			9.7			6.3			6.9				

Table 50. Age composition of commercial whitefish for each seasonal period from Area 111. 1984.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL ORESSEO WEIGHT(g) MEAN	TOTAL ORESSEO WEIGHT(g) SD.
7	-	-	-	5	365	620	-	-		5	365	25.5	620	}03.7
e	--		.	6	384	775	4	409	925	10	394	21.6	635	122.6
9	--		-	17	409	944	62	419	1018	79	417	19.6	1002	151.6
10	. -	-	-	17	410	926	24	419	1021	41	415	20.0	902	155.2
11	-	-	-	31	421	1023	6	421	992	37	421	20.6	1016	166.0
12	-	-	-	13	416	946	6	455	1342	19	426	27.9	1071	273.0
13	--		-	16	422	1000	4	446	1386	20	427	20.6	1076	230.6
14	--		-	9	429	1100	7	463	1479	16	444	31.0	1266	312.4
15	.	.	-	3	456	1183	2	466	1500	5	460	24.4	1310	235.6
16	-	-	-	1	477	1s00	-	-		1	477	-	1500	
17	-	-	-	-	-		1	480	1500	1	466	-	1500	-
TOTAL				116			116			234				
MEAN		-	-		415	970		426	1064		420	26.0	10Z6	219.0
MEAN AGE				11.0			10.0			10.5				

Table 51. Age composition of commercial whitefish for each seasonal period from Area IV, 19S4.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL ORESSEO WEIGHT(g) MEAN	TOTAL ORESSEO WEIGHT(g) SD.
6	--		-	3	369	750	1	400	600	4	3S2	44.2	763	217.5
7	--		-	S	406	620		-	-	5	406	30.s	920	166.1
6	--		-	9	417	922	7	392	743	16	406	25.4	844	178.6
9	--		-	21	426	1050	36	366	716	57	403	32.6	640	236.2
10	--		-	21	437	1119	24	400	765	45	417	30.s	941	243.9
11	--		-	15	436	1117	15	417	667	30	427	29.1	1002	219.5
"2	--		-	4	447	1236	13	416	906	17	423	30.6	965	311.1
13	-	-	-	3	510	1767	9	419	933	12	442	44.5	1142	417.2
14	--		-	1	449	1150	3	453	1167	4	452	6.2	1163	85.4
TOTAL				62			108			190				
MEAN		-	-		432	1064		403	612		415	33.7	92S	262.9
MEAN AGE				9.6			10.2			10.0				

Table 52. Age composition of commercial whitefish for each seasonal period from Area V. 1964.

AGE (yr)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL ORESSEO WEIGHT(S) MEAN	TOTAL ORESSEO WEIGHT(S) SD.
6	-	-	-	1	407	950	-	-		1	407	-	950	-
6	-	-	-	2	413	900	2	403	750	4	4oa	9.4	a25	125.a
9	-	-	-	10	416	975	4	396	613	14	410	26.0	929	230.1
10	-	-	-	7	426	1036	9	417	944	16	422	23.2	964	163.0
11	-	-	-	13	426	1042	20	420	923	33	423	23.7	970	179.0
12	-	-	-	21	440	1066	27	428	94a	46	433	24.7	1009	206.2
13	-	-	-	16	448	1161	19	429	1000	35	43a	2a. a	1083	277a
14	-	-	-	11	453	1164	20	439	1078	31	444	23.9	1106	la7.6
15	-	-	-	8	485	1663	a	414	95a	14	454	51.7	1361	635.5
16	-	-	-	3	455	1233	5	426	1010	a	436	29.5	1094	209.5
17	-	-	-	2	456	t 150	1	483	1400	3	466	35.1	1233	206.2
TOTAL				94			113			207				
MEAN		.	-		441	1140		426	9?4		433	29.7	1049	277.7
MEAN AGE				12.1			12.4			12.3				

Table 53. Length composition 0? whitefish for all Areas combined from Great Slav. Lake commercial fishery, 1984.

LENGTH INTERvAL (m)	NO.	%	FORK LENGTH(mm) MEAN	SD.	ORESSEO WEIGHT (9) MEAN	so.
310-319	4	0.1	315	2.8	400	40.8
320-329	3	0.1	325	3.1	433	20.9
330-339	6	0.2	334	3.9	456	68.5
340-349	14	0.5	344	2.7	511	65.6
350-359	20	0.7	354	2.8	588	53.5
360-369	36	1.3	365	3.1	635	42.6
370-379	67	3.2	374	2.0	706	97.9
360-369	138	5.1	384	2.8	763	70.8
390-399	214	7.9	394	3.0	620	76.S
400-409	335	12.3	404	2.9	a78	77.5
410-419	372	13.7	414	2.9	944	62.4
420429	336	12.4	424	2.9	992	91,0
430-439	2s0	10.3	434	2.8	1061	92.5
440-449	231	8.5	444	2.9	1149	108.0
4s0-459	171	6.3	454	2.7	1208	122.9
460469	157	5.6	464	2.8	1312	120.7
470-479	69	3.3	474	2.9	1419	116.1
460-489	73	2.7	464	2.5	1510	151.4
490-499	56	2.1	494	2.7	1606	160.3
500-509	35	1.3	504	3.2	1784	195.8
510-519	22	0.6	514	2.6	1632	152.4
520529	20	0.7	524	3.2	1S43	269.6
530-539	5	0.2	534	3.9	1920	125.5
540-549	5	0.2	544	4.0	2390	307.0
550-559	7	0.3	553	3.4	2343	359.9
560-569	1		560		2350	
560-s69	1		569		2850	-
TOTAL	2722					
MEAN			427	35.5	1051	295.1

Table 54. Length composition Of commercial whitefish for ● ach seasonal period from Area IW, 1984.

LENGTH INTERVAL (mm)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. wT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. wT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL DRESSED WEIGHT(g) MEAN	TOTAL DRESSED WEIGHT(g) SD.
350-359	1	355	650							1	355		650	
360-369	5	366	640							5	366	3.6	640	41.6
370-379	7	373	743	1	378	600				8	374	2.7	750	65.5
360-369	19	385	813							19	385	2.9	B13	68.4
390-399	23	395	663	5	395	650				28	395	2.9	861	71.2
400-409	25	404	904	11	403	666				36	404	3.1	B93	59.9
410-419	47	414	976	9	415	972	-			56	414	2.7	977	76.6
420429	18	423	1028	17	424	1015	-			35	424	3.0	1021	75.6
430-439	25	435	1090	16	435	1088				41	435	2.5	1069	69.4
440-449	13	444	1208	21	444	1183				3A	444	2.9	1193	77.0
450-459	9	453	1267	21	455	1236				30	455	2.7	1245	109.3
460-469	7	463	1393	29	464	1326	-			36	464	2.6	1339	80.3
470-479	5	472	1460	30	474	1403				35	474	2.9	1414	106.1
480-489	2	484	1475	14	483	1482				16	483	2.7	1481	126.3
490-499	3	496	1667	14	494	1532				17	494	2.6	1556	136.6
500-509	-	-		6	504	1667				6	504	3.1	1667	172.2
510519	1	512	1600	7	515	leoo				6	514	3.1	1800	133.6
520-529	-	-		6	524	1600				6	524	3.1	1800	255.0
530-539	-	-		1	539	1850				1	539		1850	
540-549	-	-	-	1	540	2000				1	548		2000	
660569	-	-	-	1	557	2150	-	-	-	1	557	-	2150	
TOTAL	210			210						420				
MEAN		417	1013		4!59	1290		-	-		436	37.1	1151	284.3

Table 55. Length composition of commercial whitefish for ● XI? Seasonal period from Area IE, 1984.

LENGTH INTERvAL (mm)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL ORESSEO WEIGHT(g) MEAN	TOTAL ORESSEO WEIGHT(g) SD.
310-319				-	-		2	316	375	2	316	3.5	375	35.4
320-329				-	-		1	328	400	1	328		400	
330-339				-	-		2	334	400	2	334	5.7	400	0.0
340-349				-	-		5	345	460	13	345	3.7	460	41.6
350-359				-	-		3	354	563	3	354	2.6	583	20.9
360-369			-	-	-		3	364	633	3	364	0.6	633	57.7
370-379				-	-		8	373	663	8	373	2.2	663	74.4
360369				-	-		9	385	767	9	365	2.4	767	66.1
390-399				9	39s	861	10	394	639	27	394	2.9	846	77.1
400-40s				13	405	942	22	405	900	35	405	2.8	916	84.7
410-419				1s	41s	9S6	2s	414	971	46	41s	2.6	966	75.3
420429				27	425	1037	33	424	1042	60	424	2.6	1040	75.2
430-439				17	434	1106	25	434	1112	42	434	2.3	1110	98.3
440-449				24	444	1165	17	443	1168	41	444	2.5	1167	92.9
450-459				22	4s4	1252	14	464	127S	36	454	2.7	126!	88.7
460-469				24	464	1346	7	464	1379	31	464	2.?	1353	134.3
470-479				11	475	1406	4	473	1475	15	475	2.7	1483	109.7
480-489				18	4e5	1567	1	483	1650	19	485	2.8	1571	139.8
490-499				10	494	16S5	4	494	1666	14	494	2.5	1666	147.3
500-509				7	504	1614	2	50s	1975	9	504	3.1	1850	1S6.9
510-519				5	514	1830				5	514	3.8	1s30	175.4
520-629				1	620	1350	2	522	2000	3	521	1.7	1783	376.6
530-539				1	S32	2000				1	532		2000	
540-549				1	540	2300				1	540		2300	
TOTAL				208			210			416				
MEAN		-	-		450	1256		419	1021		434	37.1	1138	317.1

Table 56. Length composition of commercial whitefish for ● acf! seasonal period from Area II. 1S64.

LENGTH INTERVAL (Inn)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (0)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. wT. ('4)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL ORESSEO WEIGHT(g) MEAN	TOTAL ORESSEO WEIGHT(g) SD.
31O-3*9	-			2	314	425	-			2	314	2.8	425	35.4
320-329	1	324	450				-			1	324		450	
330-339	3	335	463	1	332	500	-			4	334	3.9	466	47.9
340-349	5	344	540				-			5	344	1.6	540	41.8
350-359	9	354	669				2	35!	575	11	353	2.9	586	55.2
360369	3	36a	633	2	362	625	4	363	650	9	364	3.7	639	41.7
370-379	21	374	724	9	375	772	6	372	692	36	374	2.6	731	119.7
380-389	23	364	772	9	365	76S	13	363	731	45	364	2.9	763	55.6
390-399	25	393	776	17	395	600	17	393	606	59	394	3.1	792	69.6
400-409	34	404	659	19	404	663	28	405	693	81	404	2.8	872	59.7
410-419	21	414	914	16	414	916	40	413	S20	77	414	2.9	91e	71.5
420429	20	423	953	12	423	956	26	423	S69	60	423	2.9	971	72.7
430-439	17	433	1056	16	434	1053	24	433	1015	57	433	3.0	1038	66.3
440-449	10	442	112s	11	444	1150	20	442	1106	41	443	2.7	1123	91.6
450-459	12	454	1142	16	454	1194	9	454	1169	37	454	2.4	1176	140.2
460-469	3	465	1383	22	465	1298	3	463	1263	26	465	2.6	1305	104.6
470-47s	2	474	1375	8	473	1475	4	473	1363	14	473	3.2	1429	149.0
480-489				9	485	1569	6	464	1483	15	464	2.0	1547	162.0
490-499			. -	10	496	1595	3	495	1600	13	496	2.9	1596	133.0
500-509				12	505	1636	2	601	1650	14	504	3.6	1611	177.6
510-519				3	513	1967	1	516	1600	4	514	3.4	1925	95.7
520-529	-			7	525	2129				7	525	3.1	2129	160.4
530-539				1	530	1650				1	530		1850	
540-549				2	544	2400				2	544	5.7	2400	70.7
550-559				4	551	2463	-			4	551	1.0	2463	261.0
560-569				1	560	2350				1	560		2350	-
TOTAL	209			209			210			628				
MEAN		403	868		444	1214		420	960		422	40.3	1021	342.2

Table 57. Length composition of commercial whitefish for each seasonal period from Area 211, 1984.

LENGTH INTERVAL (mm)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (g)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL DRESSED WEIGHT(g) MEAN	TOTAL DRESSED WEIGHT(g) SD.
320-32	-	-	-	1	322	450	-		-	1	322		450	
340-34	-	-	-	1	346	650	-			1	346		6S0	
350-3s	-	-	-	1	352	550	-		-	1	352		550	
360-36	-	-	-	6	364	642	-			6	364	3.5	642	37.6
370-37	--		-	7	376	757	2	374	775	9	376	2.1	761	60.1
360-30	--		-	12	366	617	8	385	619	20	386	2.4	618	67..4
390-39	--		·	27	395	672	9	3s5	644	36	395	2.6	865	61.9
400-40	--		-	48	404	916	28	404	927	76	404	2.7	920	65.9
410-41	--		-	33	414	9s5	49	414	976	62	414	2.7	984	76.2
420-42	-	-	-	28	423	1023	34	423	1035	62	423	2.6	1030	83.2
430-43	--		·	17	434	106B	29	433	1105	46	434	2.6	109s	98.0
440-44	--		-	11	443	1150	29	444	1216	40	444	2.6	1196	126.1
450-4s	--		-	4	464	1236	7	453	1266	11	453	3.4	1268	150.5
400-46	--		-	5	463	1320	8	464	1431	13	463	2.8	1366	102.4
470-47	-	-	·	2	474	1425	1	472	1450	3	473	3.2	1433	76.4
400-48	--		-	4	485	1400	2	486	1600	6	465	1.6	1467	140.2
490-49	--		-				2	493	1750	2	493	0.7	1750	70.7
500-50	--		-	1	502	1800	2	506	1975	3	505	2.5	1s1?	104.1
TOTAL				206			210			416				
MEAN		-	-		413	974		425	1069		419	25.0	1022	201.4

Table 56. Length composition of commercial whitefish for each seasonal period from Area IV, 1984.

LENGTH INTERVAL (mm)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN OR. WT. (9)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN OR. WT. (9)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN OR. WT. (9)	TOTAL NO.	TOTAL FORK LENGTH(mm) MEAN	TOTAL FORK LENGTH(mm) SD.	TOTAL ORESSED WEIGHT(g) MEAN	TOTAL ORESSED WEIGHT(g) SD.
340-349		-	-	1	346	550	2	343	475	3	344	3.2	500	50.0
3s0-359		-	-	1	356	6S0	3	353	567	4	355	3.7	566	75.0
360-369		-	-				11	365	614	11	365	2.6	614	39.3
370-379		-	-	6	373	692	15	374	643	21	374	3.0	657	59.6
3fA0-369		-	-	10	364	765	24	364	704	34	384	2.9	722	55.3
390-399		-	-	11	396	027	30	394	758	41	394	2.9	777	65.3
400-409		-	-	23	404	680	43	404	806	66	404	3.2	632	79.6
41O-419		-	-	32	415	9s3	25	414	674	57	414	2.9	918	77.7
420-429	-	·	-	30	424	1010	20	424	923	50	424	2.7	975	97.0
430-439		-	-	21	434	1062	18	433	1020	39	433	2.9	1046	63.0
440-449		-	-	21	444	1152	8	445	1113	29	444	2.9	1141	90.7
450-459		-	-	14	456	1207	4	455	1125	18	455	2.5	1109	93.2
460-469		-	-	15	463	1310	3	463	1217	16	463	2.5	1294	124.7
410-479		-	-	10	475	1420	2	473	1300	12	475	2.7	1400	108.7
480-469		·	-	6	483	1556				6	483	2.4	1556	146.3
490-499		-	-	3	494	1603				3	494	4.4	1683	317.5
500-509		-	-	1	509	1800				1	509		1600	
510-519		-	-	1	514	2150	1	513	1650	2	514	0.7	2000	212.1
520-529		-	-	1	S20	2050				1	520		2050	
530-539		·	-	1	536	2100				1	536		2100	
550-559		-	-	1	558	1750				1	550		1750	
TOTAL				209			209			418				
MEAN		-	-		430	1075		405	831		418	32.0	953	259,6

Tab e 59. Length composition of commercial wh tef sh for each seasona period from Area V, 1984.

LENGTH NTERVAL (mm)	WINTER NO.	WINTER MEAN FORK LEN. (mm)	WINTER MEAN DR. WT. (g)	SPRING NO.	SPRING MEAN FORK LEN. (mm)	SPRING MEAN DR. WT. (g)	FALL NO.	FALL MEAN FORK LEN. (mm)	FALL MEAN DR. WT. (g)	TOTAL NO	TOTAL LENGTH(mm) MEAN	TOTAL LENGTH(mm) SD.	TOTAL WEIGHT(g) MEAN	TOTAL WEIGHT(g) SD.
360-369	-	-	-	-	-	-	2	369	700	2	369	0.7	700	0.0
370-379	-	-	-	1	370	600	4	374	688	5	373	3.8	670	67.1
380-389	-	-	-	3	383	650	8	385	719	11	385	2.1	700	59.2
390-399	-	-	-	12	395	842	11	395	800	23	395	3.2	822	73.6
400-409	-	-	-	22	405	832	19	405	850	41	405	3.0	840	74.3
410-419	-	-	-	22	414	886	32	414	902	54	414	3.3	895	71.6
420-429	-	-	-	36	425	929	35	424	936	71	424	3.0	932	86.2
430-439	-	-	-	20	435	1040	35	434	989	55	434	3.1	1007	91.0
440-449	-	-	-	27	444	1054	19	444	1087	46	444	3.3	1067	95.0
450-459	-	-	-	18	453	1175	21	454	1133	39	454	2.8	1153	116.4
460-469	-	-	-	18	464	1256	13	464	1181	31	464	2.9	1224	118.2
470-479	1	-	-	7	472	1307	3	474	1417	10	473	3.1	1340	90.7
480-489	1	-	-	6	485	1433	5	484	1350	11	484	1.6	1395	145.7
490-499	1	-	-	6	495	1558	3	495	1483	9	495	2.6	1533	167.7
500-509	1	-	-	2	503	1450			-	2	503	3.5	1450	70.7
510-519	1	-	-	3	515	1683	-	-	-	3	515	1.5	1683	28.9
520-529	1	-	-	3	527	1917	-	-	-	3	527	2.3	1917	284.3
530-539	1	-	-	1	533	1800	-	-	-	1	533	-	1800	-
540-549	1	-	-	1	544	2850	-	-	-	1	544	-	2850	-
550-559	1	-	-	1	551	2650	-	-	-	1	551	-	2650	-
580-589	1	-	-	1	589	2850	-	-	-	1	589	-	2850	-
TOTAL	-			NO			NO			420				
MEAN		-	-		439	1085		428	-		434	30.7	1034	268.6

Table 60. Annual mortality rates for commercial whitefish from each administrative area, 1983.

Area	Age-Classes Used	Survival (s)	SE of s	Var of s	Annual Mortality Rate (A)
IW	11-18	0.5974	0.0226	0.0005	0.4026
IE	13-16	0.2639	0.0366	0.0013	0.7361
II	10-15	0.4743	0.0302	0.0009	0.5257
III	13-15	0.2787	0.0568	0.0032	0.7213
Iv	14-18	0.3556	0.0410	0.0017	0.6444
v	14-21	0.5407	0.0343	0.0012	0.4593
Total	11-21	0.5973	0.0083	0.0001	0.4027

Table 61. Annual mortality rates for commercial whitefish from each administrative area, 1984.

Area	Age-Classes Used	Survival (s)	SE of s	Var of s	Annual Mortality Rate (A)
IW	11-17	0.6178	0.0300	0.0009	0.3822
IE	10-15	0.6487	0.0267	0.0007	0.3513
11	10-19	0.5199	0.0330	0.0011	0.4802
111	10-17	0.6303	0.0248	0.0006	0.3697
Iv	10-14	0.5202	0.0333	0.0011	0.4798
V	13-17	0.5135	0.0365	0.0013	0.4865
Total	10-19	0.6426	0.0101	(-).0001	0.3574