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MANUSCRIPT REPORT SERIES
(BIOLOGICAL)

No. 738
Manuscript Report of the Great Stave Lake Investigation
No. 30

TITLE
Suryey of the 1961 Fall Domestic Fishery at Snowdrift, N.W.T,

AUTHORSHIP
J. J. Keteher and C. G. Haight

Establishment
Biological Station, London, Ontario

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Dated November, 1962.

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## INTRODUCTION

The fish of Great Slave Lake are utilized not only for commercial and angling purposes, but provide food for some residents and their dogs. The object of the survey was to establish the extent of the fall domestic fishery at the Snowdrift community. It is part of a re-evaluation of the magnitude of the Great Slave Lake domestic fir

## General

On October 4, there were not more than six families engaged in fishing and they were using only enough gear to partially supply their daily needs. About 15 male Indians were engaged in building four houses as a project of the Indian Affairs Branch. Upon completion, they will be each occupied by an Indian family. An unreported number of Indians were hunting caribou in the Fort Reliance district.

Several field trips (Table II) were made during the survey to the various fishing sites shown in Figure 1. The first was made by boat on October 11. It was to the Stark* and Snowdrift Rivers. Edward Catholic had a tent set up on the south bank of the east end of the Stark River. He had started fishing on October 8, and was using two 50 -yard- $41 / 2$-inch cotton nets. These nets had been lifted once after being in the water two nights. Haight and Abel then proceeded to the mouth of the Snowdrift River, but were stopped from proceeding upstream by ice on the river. Camp was made and the next day they walked two miles upstream where two tents were pitched and fishing was in progress. One tent was occupied by two brothers, Albert and Ernest Boucher; the other by Moise Klozie and Noel Abel, Louis's brother.

Their nets were set through 4 inches of ice in about 10 feet of water.
They had been fishing there for four days. The river at this location has a

[^0]soft bottom and is about 100 yards wide with no appreciable current. The Snowdrift River is locally noted for the annual spawning run of whitefish.

On October 13, Fred Casaway and Pierre Marlow brought in from Great Slave Lake the first fish that was to be frozen and used later. They were both fishing within three miles of the village. On October 16, Maurice Lockhart returned from Stark Lake where he had been fishing for about five days.

On October 28, field trip No. 8 was made with dogs to Ogilvie Lake (Fig. 1). John Tassie, Mrs. Cook and Augustine Enzoe were reported to be there; however, Augustine's camp could not be located. Weights from John Tassie's catch and interviews for his fishing were obtained. No interviews or weights were obtained from Mrs. Cook as she was in the process of setting her nets through about 6 inches of ice.

Haight departed from Snowdrift on an Aronca Sedan chartered aircraft on November 16. At that time, fishing was being continued by only two persons - John Tassie and Mrs. Cook. They informed him of the amount of fish they planned to freeze for later use. Mr. Tassie has fished Ogilvie Lake for many years as this is his usual trapping location.

On November 16, Christie Bay was not frozen; the small adjoining bays were. There was a maximum of 7 inches of ice on the margin of the bay that lies east of the village. The remainder of this bay was covered with skim ice. While flying the 195 miles to Hay River, it was noted that the inland lakes were all frozen over; MacDonald Lake had just frozen. The Hornby Channel and Resolution Bay were frozen. From Pine Point to Hay River the ice was from 100 to 400 yards out from shore. Large pans of ice also were floating on the main lake.

Gear
Gill nets were the exclusive gear used in the domestic fishery. There were two types of twine and three mesh sizes. The Indian Affairs Branch supplied both nylon and cotton nets of $41 / 2$ - and 5 -inch mesh size (stretched measure). These nets were 100 yards long and 28 meshes deep, i.e., 9.0 and 11.7 feet. There were also some nylon nets of $51 / 2$-inch mesh. These were obtained from some commercial fishermen. The Hudson's Bay Company now has the only retail store in the community, but didn't stock nets before the preceding summer. ${ }^{*}$ Haight was advised that usually Treaty Indians were dependent entirely upon the Indian Affairs Branch for fishing equipment. *

## Scale Samples

Scale samples from 53 whitefish, 30 trout and 14 pike were taken. The age determinations have not been made, so are not included in this report.

## Average Size

During the survey, 1125 fish were weighed. They consisted of 22 samples of four species from five locations. The majority 1983 from 13 samples) were whitefish, since this was the predominant species caught. Four samples making up 96 fish were from trout, while four samples of pike totalled 36 fish. Only one sample of longnose sucker was obtained. Frequency distribution of the weights of whitefish are shown in Table III, trout in Table IV and the other two species in Table V. The average size and other statistics of all weight samples are shown in Table VI.

[^1]The greatest difference in average size of whitefish occurred among locations. Ogilvie Lake whitefish were the largest ( 3.8 lb ), the Great Slave Lake whitefish were intermediate (3.5), and those from the other locations were felatively the smallest ( 3.0 lb or less). There did not appear to be any obvious differences in the average size with respect to time periods or mesh size of the gear. The sampling of the other species was too meagre to justify size comparisons among locations or other possible variables.

## Interviewed Catch

Because only 32 interviews were obtained, the information from them are listed in Table VII. The catch for 8 interviews are based on our actual counts. A total of 2908 fish were caught in 5785 yards of net.

This interviewed catch came from either nylon or cotton nets (a mixture in interview No. 13) of two different mesh sizes. The length of time in the water was variable. Most of the yardage was down one or two nights. Thus 2225 yards were fished for one night, 2300 yards were fished for two nights, 730 yards for three nights, 80 yards for four nights and 450 yards were down six nights before being lifted.

Table VIII shows the calculations necessary to convert the number of fish caught to round weight per 100 yards of net. No attempt has been made, because of the limited data, to allow for differences in mesh size, net material, or number of nights in the water. The conversion factors from number to round weight follow. For whitefish, 3.0 for locations $1-3,3.8$ and 3.5 for locations 4 and 5 respectively were used. For trout, 5.8 lb was applied for all locations. This was the all-season average size found for the 1960 Area $N$ commercial fishery samples. The survey averages of
5.2 for pike and 3.3 for longnose sucker were used. For the other species, the average size found in the commercial fishery was used. This was 1.0 for ciscoes, 2.2 for grayling and 2.8 for Prosopium.*

The 2908 fish from the interviewed catch are equivalent to $10,417 \mathrm{lb}$. To facilitate comparisons, the poundages per net shown in Table VIII are presented separately in the next Table, No. IX.

The overall catch per net, based on the equivalent of 58 nets, from five different locations was 180 lb . Whitefish contributed 118 lb or twothirds. These figures should not be emphasized, because the all-species figure at the Snowdrift River was nearly double that found elsewhere. At the other locations, the totals were very similar. For a particular species, it varied with locations. At the Snowdrift River and Ogilvie Lake whitefish predominated. The best trout fishing was at the Stark River, while in Stark Lake whitefish and trout were caught equally. Trout are absent apparently from Ogitvie Lake (see p. 7). The catch of each of the other species from each location was usually less than 10 lb to the net.

## Total Catch and Effort

An estimate of total catch was derived by inquiry and inspection. The figures according to location of the catch and individuals are presented in Table X. The column "immediate dog food" refers to the fish fed to the dogs while fishing was in progress. The amounts listed in the Table are converted to pounds in Table XI. The "immediate dog food" has been apportioned as $25 \%$ whitefish and trout and $75 \%$ other species. The effort, expressed as the number of 100 -yard gill nets, has been derived from the figures presented in Table IX.

[^2]The estimated catch during the fall fishery was $43,404 \mathrm{lb}$ consisting of $65 \%$ whitefish, $14 \%$ trout and $21 \%$ other species. The other species are pike, longnose sucker, cisco, burbot, grayling and Prosopium. We have not attempted to estimate the amounts of each of the "other species." Nearly half of the catch came from the Snowdrift River. An estimate of the total effort, derived from interviews for $24 \%$ of the estimated catch, was 193 nets.

## General Notes on Species

## Whitefish

The concentration of whitefish in the Snowdrift River is to be noted. A run was evident on October 11 and fish were still being caught in fair numbers when fishing stopped on November 6. The whitefish of Ogilvie Lake were silvery in appearance and had relatively small heads and hump backs. Weight sample 15 and scale sample 23 were taken from whitefish spawning in Great Slave Lake on October 13. The fish were caught by Fred Casaway. This was the first record of spawning whitefish in the main lake during the survey. The completion of spawning was not ascertained. Spawning whitefish were seen also at the Stark River on October 17.

## Trout

The dates of trout spawning are unknown; it is suspected that they had spawned before the start of the survey. Trout examined on October 15 were spent. In 1959 spawning trout were found in the Lockhart River on September 1 (see Keleher and Meeker, 1962). Mr. John Tassie advised that there were no trout in Ogilvie Lake. He mentioned that the lake was shallow, i.e., not over 25 feet deep and also that only a few burbot and pike had every been caught.

## Inconnu

There were no inconnu caught. This confirms their general absence in the East Arm, as observed from the landings of the commercial fishery. Fuller (1955) noted that they were found only rarely in McLeod and Christie Bays.

## Walleye

It was reported that this species is present in both Murky and Fairbairn Lakes (see Fig. 1). No specimens were found in the domestic catch.

## Sucker

Only one species, the longnose sucker, was present in the catch and these were caught quite frequently, especially from the Snowdrift River.

## Cisco

Those seen were all small and none would weight over one pound.

## Grayling

Grayling were caught frequently in both the Snowdrift and Stark Rivers. This is to be expected, as they frequent localities of running water.

## Prosopium

This species was numerous, being taken mainly from the Snowdrift River. Although recognized as different from the whitefish (Coregonus clupeaformis) by the domestic fishermen, they are not so separated in the counting of the catch. Some of the total catch statistics for whitefish therefore include Prosopium.

## DISCUSSION

Instead of conventional leads and floats, the great majority of the domestic nets were equipped with rocks and sticks. They often became snarled in the webbing which hindered the fishing operation. It is suspected that these nets didn't hang as well compared to those properly equipped; therefore, they would catch less fish. Mr. K. Kerr, Superintendent, Yellowknife Indian Agency, said that in future his department would be supplying only nylon nets. This may be of some help, as they are more resistent to rotting and may, as the commercial fishermen claim, catch more fish than either cotton or linen ones.

The catch of fish per 100-yard net at the various sites of the domestic fishery has been calculated. The average was 180 pounds. This is undoubtedly the first quantitative information on the domestic poundage caught per unit of net for the Snowdrift region. Although there is, therefore, no comparative data, the figures indicate that fish were readily available to those who made an effort to obtain them.

The basis for our estimate of a total catch of less than $45,000 \mathrm{lb}$ has been presented. The major part came from the Snowdrift River. In view of the Large area of Great Slave Lake originally reserved for the exclusive use of the domestic fishery (see Fig. 1), it is interesting to ascertain that less than $20 \%$ of the catch came from this region.

According to our census (Table XIl), the Snowdrift community consisted of 158 Treaty Indians and 167 dogs. The catch was equivalent to 133 pounds for each Indian and dog. Assuming that the average consumption was 3 pounds per day, the supply would be exhausted in 44 days. Actually
the catch was not evenly distributed. Comparing the census figures with those who had fished (Table X) indicates that approximately one-half of the Indians and two-thirds of the dog population were provided with some fish. Conversely, half of the Indians and a third of the dogs did not directly benefit from the fall domestic fishery. No doubt they received some benefit, since trading and sale of fish does occur.

The Treaty Indians at Snowdrift are primarily caribou hunters and would not fish if they could obtain sufficient caribou for themselves and their dogs. During the survey, there was no evident supply of caribou, so that the amount of fishing carried out was not affected by the Indian's food preference.

While the likely fish requirements of the Snowdrift community were not met by the fall domestic fishery, it is apparent that any lack was not due to a scarcity of fish. It was estimated that 193 gill nets lifted once could have caught the total domestic catch. This would be equivalent to each person fishing 120 yards of net on occasion.

## SUMMARY

From October 4 to November 16 , a field survey was made of the 1961 fall domestic fishery at Snowdrift, a community of 158 Treaty Indians, situated in the East Arm of Great Slave Lake. The estimated total catch of 43,500 pounds was taken from five fishing sites. Nearly 29,000 pounds of whitefish, as well as 6,000 pounds of trout and 9,000 pounds of six other species made up the catch. The average amount per 100 -yard net was 180 pounds. The total effort was equivalent to 193 nets. A minority of the community engaged in the fishery. It was concluded that any shortage of fish
in the community was not attributable to its scarcity in the region.

## ACKNOWLEDGMENTS

Mr. J. E. Bryant, Superintendent of Game, provided a cabin for use during the survey. A copy of the Treaty Indian Band List, provided by the Yellowknife Indian Agency, was an advantage. Mr. Arne Steinwand, H.B.C. manager at Snowdrift, rendered assistance in numerous ways.

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Table I. Codes used for Snowdrift domestic fishery data.

| Item | I. B. M. card columns | Codes | Definition |
| :---: | :---: | :---: | :---: |
| Location | 9 | 1 | Snowdrift River |
|  |  | 2 | Stark River |
|  |  | 3 | Stark Lake |
|  |  | 4 | Ogilvie Lake |
|  |  | 5 | Great Slave Lake |
| Time Period | 5-6 | 19 | October 1-15 |
|  |  | 20 | October 16-31 |
|  |  | 21 | November 1-15 |
| Mesh Size | 19 | E | 4.5 inches |
|  |  | L | 5.5 inches |
| Species | 34-35 | 10 | Whitefish, Coregonus clupeaformis |
|  |  | 20 | Trout, Cristivomer namaycush |
|  |  | 30 | Inconnu, Stenodus leucichthys |
|  |  | 40 | Pike, Esox lucius |
|  |  | 50 | Walleye, Stizostedion vitreum |
|  |  | 61 | Longnose sucker, Catostomus catostomus |
|  |  | 70 | Ciscos, Leucichthys spp. |
|  |  | 80 | Burbot, Lota lota |
|  |  | 91 | Grayling, Thymallus arcticus |
|  |  | 92 | Prosopium ${ }^{\text {a }}$, Prosopium cylindraceum |

${ }^{\text {as }}$ See footnote on page 6 .

Table II. Data collected during October field trips.

| Trip |  |  |  | Samples |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| No. | Day | Loc. | Interviews | Weight | Scales |
| 1 | 11 | 1,2 | $1,2,11$ | 1,2 | $\ldots$ |
| 2 | 13 | 5 | $\ldots$ | $4,5,6,7,8$ | $\ldots$ |
| 3 | 17 | 2 | $12,13,14$ | $9,10,11,12$ | $23,24,25$ |
| 4 | 18 | 2 | 15,16 | $\ldots$ | $\ldots$ |
| 5 | 19 | 1 | $3,4,5$ | 13 | $\ldots$ |
| 6 | 23 | 2 | 18 | $14,15,16$ | 26 |
| 7 | 26 | 1 | $6,7,34$ | 19 | $\ldots$ |
| 8 | 28 | 4 | 21 | 20 | $\ldots$ |

${ }^{\mathrm{a}}$ By Louis Abel.

Table III. Frequency distribution of size of whitefish.

| lb | 1 |  | $\frac{2}{20}$ | $\frac{3}{20}$ | 4 |  | $\frac{5}{19}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 19 | 20 |  |  | 20 | 21 |  |  |
| 1.1 | . | . | . | . | . | 1 | . | 1 |
| 1.2 | - | - | . | . | . | 1 | . | 1 |
| 1.3 | 1 | - | $\cdots$ | $\cdots$ | . | 0 | $\ldots$ | 1 |
| 1.4 | 0 | . | $\cdots$ | $\cdots$ | $\cdots$ | 0 | $\cdots$ | 0 |
| 1.5 | 0 | 1 | . | $\cdots$ | . | 0 | . | 1 |
| 1.6 | 0 | 0 | $\cdots$ | . | 1 | 0 | 1 | 2 |
| 1.7 | 0 | 1 | 1 | . | 1 | 0 | 0 | 3 |
|  |  |  |  |  |  |  | Icon | d) |

Table III. (continued)

| lb | 1 |  | $\frac{2}{20}$ | $\frac{3}{20}$ | 4 |  | $\frac{5}{19}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 19 | 20 |  |  | 20 | 21 |  |  |
| 1.8 | 3 | 3 | 0 | . | 0 | 1 | 0 | 7 |
| 1.9 | 1 | 3 | 0 | . | 2 | 1 | 2 | 9 |
| 2.0 | 4 | 2 | 0 | $\ldots$ | 0 | 0 | 1 | 7 |
| 2.1 | 3 | 5 | 6 | 2 | 3 | 1 | 1 | 21 |
| 2.2 | 10 | 8 | 5 | 0 | 0 | 1 | 2 | 26 |
| 2.3 | 6 | 18 | 7 | 3 | 0 | 1 | 6 | 41 |
| 2.4 | 16 | 19 | 8 | 0 | 2 | 0 | 4 | 49 |
| 2.5 | 8 | 19 | 4 | 1 | 0 | 2 | 4 | 38 |
| 2.6 | 9 | 23 | 5 | 1 | 1 | 3 | 7 | 49 |
| 2.7 | 11 | 25 | 3 | 2 | 1 | 1 | 3 | 46 |
| 2.8 | 9 | 26 | 4 | 3 | 1 | 1 | 6 | 50 |
| 2.9 | 11 | 23 | 7 | 2 | 4 | 2 | 2 | 51 |
| 3.0 | 12 | 31 | 3 | 0 | 3 | 0 | 6 | 55 |
| 3.1 | 15 | 27 | 6 | 2 | 3 | 6 | 4 | 63 |
| 3.2 | 15 | 17 | 3 | 0 | 2 | 1 | 4 | 42 |
| 3.3 | 11 | 16 | 3 | 2 | 2 | 10 | 1 | 45 |
| 3.4 | 17 | 19 | 1 | 0 | 4 | 5 | 3 | 49 |
| 3.5 | 4 | 14 | 2 | 0 | 4 | 5 | 1 | 30 |
| 3.6 | 4 | 4 | 0 | 2 | 6 | 6 | 4 | 26 |
| 3.7 | 8 | 9 | 0 | 0 | 4 | 5 | 4 | 30 |
| 3.8 | 6 | 13 | 1 | 1 | 11 | 3 | 2 | 37 |
| 3.9 | 2 | 6 | . | 0 | 10 | 5 | 4 | 27 |
|  |  |  |  |  |  |  | (continued) |  |

Table III. (continued)

| lb | 1 |  | $\frac{2}{20}$ | $\frac{3}{20}$ | 4 |  | $\frac{5}{19}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 19 | 20 |  |  | 20 | 21 |  |  |
| 4.0 | 2 | 3 | . | 0 | 5 | 7 | 0 | 17 |
| 4.1 | 4 | 5 | . . | 1 | 3 | 2 | 1 | 16 |
| 4.2 | 2 | 2 | . | . | 6 | 7 | 1 | 18 |
| 4.3 | 1 | 5 | . | . | 5 | 4 | 2 | 17 |
| 4.4 | 1 | 2 | . | . | 6 | 3 | 1 | 13 |
| 4.5 | 3 | 5 | . . | . | 7 | 3 | 2 | 20 |
| 4.6 | 0 | 0 | . | . | 8 | 2 | 4 | 14 |
| 4.7 | 0 | 1 | . | . | 0 | 3 | 2 | 6 |
| 4.8 | 0 | 0 | . | . | 6 | 3 | 4 | 13 |
| 4.9 | 0 | 1 | . . | - | 3 | 1 | 1 | 6 |
| 5.0 | 0 | 1 | . | . | 2 | 0 | 2 | 5 |
| 5.1 | 0 | 0 | . | $\cdots$ | 4 | 1 | 1 | 6 |
| 5.2 | 0 | 2 | - | . | 1 | 1 | 1 | 5 |
| 5.3 | 0 | 0 | . | $\cdots$ | 3 | 1 | 2 | 6 |
| 5.4 | 1 | 0 | . | $\cdots$ | 1 | 0 | 0 | 2 |
| 5.5 | 0 | 1 | . | . | 0 | 0 | 1 | 2 |
| 5.6 | 0 | $\cdots$ | . | - | 1 | 0 | 0 | 1 |
| 5.7 | 0 | - | $\cdots$ | $\cdots$ | 0 | 0 | 3 | 3 |
| 5.8 | 1 | $\cdots$ | - | . | 0 | 0 | 0 | 1 |
| 5.9 | . | $\cdots$ | . | - | 2 | 0 | 0 | 2 |
| 6.0 | - | $\cdots$ | . | . | - | 0 | 1 | 1 |
| 6.1 | - | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 1 | 0 | 1 |
| ... | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | .. | . . |
| 6.7 | $\cdots$ | .. | . | $\cdots$ | - | $\cdots$ | 1 | 1 |
|  | 201 | 360 | 69 | 22 | 128 | 101 | 102 | 983 |

Table IV. Frequency distribution of size of trout.


Table V. Frequency distribution of size of pike and longnose sucker.


Table V. (continued)

| lb | 40 |  | Total | $\frac{61}{2}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 2 | 5 |  |  |
| 5.3 | 1 | 0 | 1 | . |
| 5.4 | 1 | 1 | 2 | . . |
| 5.6 | 1 | 2 | 3 | . |
| 5.7 | 0 | 1 | 1 | . |
| 5.9 | 1 | 0 | 1 | . |
| 6.0 | 1 | 0 | 1 | . |
| 6.1 | 1 | 0 | 1 | . |
| 6.2 | 1 | 0 | 1 | . |
| 6.4 | 2 | 0 | 2 | - |
| 6.6 | 0 | 1 | 1 | $\cdots$ |
| 7.3 | 1 | - | 1 | - |
| 7.5 | 1 | - | 1 | - |
| 8.1 | 1 | . | 1 | - |
|  | - | - | - | - |
|  | 16 | 20 | 36 | 10 |

Table VI. Statistics for weight samples.

| Species | Loc. | T.P. | Sample No. | Net ${ }^{\text {a }}$ | n | SX | $s x^{2}$ | X |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 1 | 19 | 1 | IN | 180 | 540.1 | 1699.05 | 3.0 |
|  |  |  | 2 | EC | 21 | 66.6 | 217.00 | 3.2 |
| 10 | 1 | 20 | 13 | EC | 74 | 220.8 | 692.30 | 3.0 |
|  |  |  | 19 | ? | 190 | 558.9 | 1704.69 | 2.9 |
|  |  |  | 21 | ? | 96 | 310.2 | 1043.02 | 3.2 |
| 10 | 2 | 20 | $9$ | EC | 37 | $96.4$ |  |  |
|  |  |  | $15$ | E? | 32 | $88.1$ | $249.77$ | $2.8$ |
| 10 | 3 | 20 | 18 | ? | 22 | 63.7 | 190.79 | 2.9 |
| 10 | 4 | 20 | 20 | ? | 128 | 505.5 | 2091.41 | 4.0 |
| 10 | 4 | 21 | 22 | ? | 101 | 370.8 | 1432.16 | 3.7 |
| 10 | 5 | 19 | 3 | IN | 49 | 161.5 |  | 3.3 |
|  |  |  | 4 | IN | 37 | 144.9 | 615.55 | 3.9 |
|  |  |  | 5 | EC | 16 | 50.8 | 181.32 | 3.2 |
| 20 | 2 | 20 | 10 | EC | 36 | 235.0 | 2165.00 | 6.5 |
|  |  |  | 14 | E? | 34 | 249.0 | 2359.00 | 7.3 |
| 20 | 3 | 20 | 17 | ? | 11 | 30.0 | 102.00 | 2.7 |
| 20 | 5 | 19 | 7 | IN | 15 | 74.0 | 490.00 | 4.9 |
| 40 | 2 | 20 | 12 | EC | 3 | 18.1 | 109.25 | 6.0 |
|  |  |  | 16 | E? | 13 | 75.4 | 459.36 | 5.8 |
| 40 | 5 | 19 | 6 | EC | 14 | 65.1 | 314.29 | 4.7 |
|  |  |  | 8 | IN | 6 | 27.7 | 132.85 | 4.6 |
| 61 | 2 | 20 | 11 | EC | 10 | 33.3 | 116.93 | 3.3 |

[^3]Table VII. Data from interviewed catch.

| Loc. | Name | Date | $\begin{aligned} & \text { Int. } \\ & \text { No. } \end{aligned}$ | Nets | Number of Fish by Species |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 10 | 20 | 40 | 61 | 70 | 80 | 91 | 92 |  |
| 1 | N. Abel | Oct. 12 | 1 | 400 IN $2^{\text {a }}$ | 184 | . . | 10 | 3 | 1 | . | 3 | . | 201 |
|  | A. Boucher | 12 | 2 | 500 EC 2 | 500 | . | 20 | 50 | . | 1 | 3 | $\cdots$ | 574 |
|  | M. Basil | 19 | 3 | 100 EC 1 | 57 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | .. | $\cdots$ | 4 | $61^{\text {b }}$ |
|  | $N$. Abet | 19 | 4 | 100 EC 1 | 77 | $\cdots$ | 2 | $\cdots$ | $\cdots$ | $\cdots$ | 3 | 4 | $86^{\text {b }}$ |
|  | N. Abel | 19 | 5 | 50 EC 1 | 31 | $\cdots$ |  | $\cdots$ | . |  | 2 | 3 | 36 |
|  | F. Casaway | 26 | 6 | 50 EC 3 | 75 | . | 2 | ; | $\cdots$ | 1 | . |  | $78^{\text {b }}$ |
|  | P. Dejarlais | 26 | 7 | 50 ? C 4 | 36 |  | 2 | 1 | $\cdots$ | $\cdots$ | . | 6 | 45b |
|  | F. Casaway | Nov. 1 | 8 | 50 EC 2 | 84 | 1 | 1 | $\cdots$ | $\cdots$ | . | 2 | 20 | 108 |
|  | M. Klozie | 6 | 9 | 30 EC 4 | 58 | . | 1 | 2 | . | $\because$ | 2 | 2 | 65 |
|  | W. Enzoe | 6 | 10 | 100 EC 3 | 65 | . | . | 2 | . | 1 | 2 | 3 | 73 |
| 2 |  | Oct. 12 |  |  |  |  |  |  |  |  |  |  |  |
|  | J. Abel | -17 | $12$ | 50 EN 2 | 8 | 3 | 1 | 2 | $\cdots$ | 1 | .. |  | $15^{\text {b }}$ |
|  | E. Catholic | 17 | $13$ | 200 2M 2 | 16 | 19 | 4 | 4 | 3 | $\because$ | $\cdots$ | . | 46 |
|  | J. Abel | 17 | 14 | 200 EC 2 | 29 | 33 | 2 | 8 | 23 | 1 | $\cdots$ | . | 96 |
|  | J. Abel | 18 | 15 | 75 EC 1 | 14 | 7 | 8 | 3 | 1 | 1 | 3 | 1 | 38 |
|  | E. Catholic | 18 | 16 | 100 EC 1 | . | 22 | 2 | 1 | $\cdots$ | $\cdots$ | . | $\cdots$ | 25 |
|  | J. Abel | 22 | 17 | 100 E ? 1 | 20 | 20 | 10 | 10 |  | $\cdots$ | . | $\cdots$ | 60 |
|  | J. Abel | 23 | 18 | 300 E ? 2 | 32 | 34 | 13 | 7 | 8 | 4 | $\cdots$ | 2 | $100^{\text {b }}$ |
|  | J. Abel |  |  | 100 EC 1 |  |  |  | -. | . | 2 |  |  |  |
| 3 | M. Lockhart | Oct. 14 | 20 | 1050 ?? 1 | 220 | 114 | 14 | . | - | 17 | . | -. | 366 |
| 4 | J. Tassie | Oct. 28 | 21 | 450 ?? 1 | 168 | . | 3 | . | .. | 4 | $\cdots$ | . | $173{ }^{\text {b }}$ |
|  | J. Tassie | 30 | 22 | 230 ? ? 3 | 83 | . | 3 | . | . | 4 | . | . | 90 |
| 5 | P. Marlow | Oct. 9 | 23 | 300 IN 2 | 80 | 10 | 10 | . | - | - | $\cdots$ | - | 100 |
|  | J. Klotz | Oct. 13 | 24 | 100 ? N 2 | 4 | 30 | io | .. | . | . | .. | . | 34 |
|  | P. Marlow | 13 | 25 | 300 IN 3 | 74 | 8 | 10 | .. | $\cdots$ | $\because$ | . | . | 92 |
|  | F. Casaway | 13 | 26 | 50 EC 2 | 15 | . | 16 | $\cdots$ | . | 5 | . | . | 36 |
|  | P. Chipot | 13 | 27 | 50 EC 3 | 41 | . | 2 | . | .. | 2 | . | . | 45 |
|  | J. Catholic | 13 | 28 | 50 EC 2 | 4 | - | 2 | . | . | .. | . | . | 6 |
|  | A. Natih | 17 | 29 | 150 EC 6 | 18 | 1 | 4 | $\cdots$ | . | $\cdots$ | . | . | 23 |
|  | J. Klotz | 17 | 30 | 100 IN 1 | 10 | 5 | - | 3 | . | 4 | . | . | 22 |
|  | A. Natih | 18 | 31 | 150 EC 6 | 18 | 1 | 4 | .. | $\cdots$ | . | . | . | 23 |
|  | P. Marlow | 25 | 32 | 150?? 6 | 78 | 11 | 8 | $\cdots$ | 1 | 4 | $\cdots$ | $\cdots$ | 102 b |
|  |  |  |  |  | 2154 | 334 | 156 | 104 | 37 | 52 | 26 | 45 | 3908 |

${ }^{a^{4}} 400$ yards of $5 / 2^{\prime \prime}$ mesh nylon net lifted after 2 nights.
${ }^{\text {b Actual count by C. G. H. }}$

Table VIII. Data for calculation of pounds per 100-yard net.

| Species | Item | Location |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |  |
| 10 | Yardage | 1,430 | 1,225 | 1,050 | 680 | 1,400 | 5,785 |
|  | Number | 1,167 | 174 | 220 | 251 | 342 | 2,154 |
|  | Pounds | 3,501 | 522 | 660 | 954 | 1,197 | 6,834 |
|  | Per Net | 245 | 43 | 63 | 140 | 86 | 118 |
| 20 | Number | 1 | 153 | 114 | 0 | 66 | 334 |
|  | Pounds | 6 | 887 | 661 |  | 383 | 1,937 |
|  | Per Net | t | 72 | 63 | ... | 27 | 33 |
| 40 | Number | 38 | 44 | 14 | 4 | 56 | 156 |
|  | Pounds | 198 | 229 | 73 | 21 | 291 | 812 |
|  | Per Net | 14 | 19 | 7 | 3 | 21 | 14 |
| 61 | Number | 58 | 43 | 0 | 0 | 3 | 104 |
|  | Pounds | 191 | 142 | . . | . . | 10 | 343 |
|  | Per Net | 13 | 12 | . . | . . | 1 | 6 |
| 70 |  |  | 35 | 0 | 0 | 1 | 37 |
|  | Pounds | 1 | 35 | . . . | . . . | 1 | 37 |
|  | Per Net | t | 3 | . . | ... | t | 1 |
| 80 | Number | 3 | 9 | 17 | 8 | 15 | 52 |
|  | Pounds | 16 | 47 | 88 | 42 | 78 | 271 |
|  | Per Net | 1 | 4 | 8 | 6 | 6 | 5 |
| 91 | Number | 17 | 8 | 1 | 0 | 0 | 26 |
|  | Pounds | 37 | 18 | 2 | . . | . . | 57 |
|  | Per Net | 3 | 2 | t | . . |  | 1 |
| 92 | Number |  | 3 | 0 | 0 | 0 | 45 |
|  | Pounds | 118 | 8 | . . | . . | . . | 126 |
|  | Per Net | 8 | 1 | . . | . . | . . | 2 |
|  | Number |  |  |  | 263 |  |  |
|  | Pounds | 4,068 | 1,888 | 1,484 | 1,017 | 1,960 | 10,417 |
|  | Per Net | 284 | 154 | 141 | 150 | 140 | 180 |

$\mathrm{t}=$ less than 1 pound.

Table IX. Average pounds of fish per 100 -yard net. Data are based on equivalent of 58 nets.

|  | Location |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Species | 1 | 2 | 3 | 4 | 5 |  |
| 10 | 245 | 43 | 63 | 140 | 86 | 118 |
| 20 | t | 72 | 63 | 0 | 27 | 33 |
| 40 | 14 | 19 | 7 | 3 | 21 | 14 |
| 61 | 13 | 12 | 0 | 0 | 1 | 6 |
| 70 | t | 3 | 0 | 0 | t | 1 |
| 80 | 1 | 4 | 8 | 6 | 6 | 5 |
| 91 | 3 | 2 | 5 | 0 | 0 | 1 |
| 92 | 8 | 1 | 0 | 0 | 0 | 2 |
|  | 284 | 154 | 141 | 150 | 140 | 180 |

$t=$ less than 1 pound.

Table X. Estimated individual catch.

| Loc. | Name | Band No. | Days Fished | Number of Fish by Species |  |  |  |  |  |  | ```Immediate dog food tb``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 10 | 20 | 40 | 61 | 80 | 91 | 92 |  |
| 1 | Abel, Louis | 73 | . | 200 | . . | . . | . . | . . | . . | . $\cdot$ | . ${ }^{\text {a }}$ |
|  | Abel, Noel | 176 | 35 | 800 | . | ... | . . | $\cdots$ | . | . | 420 |
|  | Boucher, Bros. | 119 | 10 | 1,400 | . | 10 | 20 | 50 | . $\cdot$ | 20 | 480 |
|  | Casaway, F. | 134 | 10 | 1,050 | . $\cdot$ | . . | . . | . . | . . | ... | 360 |
|  | Catholic, Ed. | 186 | 8 | 300 | ... | . . . | . . | . | . | . | 130 |
|  | Dejarlais, P. | 180 | ? | 80 | . . | . . | . . | . . | . . | . . | 200 |
|  | Enzoe, B. | 198 | ? | 250 | . . | . . | ... | .. | . | . . | 600 |
|  | Klozie, M. | . $\cdot$ | 35 | 1,000 | . $\cdot$ | . . | . . | . | - | ... | 840 |
|  | Marlow, J. | 138 | ? | 200 | . . . | . . | . . | . . | $\cdots$ | $\cdots$ | 200 |
| 2 |  |  |  | 5,280 | . . | 10 | 20 | 50 | *. | 20 | 3,230 |
|  | Abel, John | 191 | 10 | 81 | 72 | 12 | 9 | $\cdots$ | $\cdots$ | 13 | 120 |
|  | Catholic, Ed. | 186 | 10 | 100 | 70 | 20 | 10 | $\cdots$ | . . | . $\cdot$ | 160 |
|  | Michel, P. | 133 | 10 | 81 | 72 | 12 | 9 | $\cdots$ | $\cdots$ | 13 | 120 |
| 3 |  |  |  | 262 | 214 | 44 | 28 | $\cdots$ | $\cdots$ | 26 | 400 |
|  | Lockhart, J. | 143 | 10 | 60 | 100 | 20 | 20 | . | $\cdots$ | . | 200 |
|  | Lockhart, M. | 135 | 10 | 542 | 325 | 35 | 15 | 30 | 1 | 13 | 320 |
|  |  |  |  | 602 | 425 | 55 | 35 | 30 | 1 | 13 | 520 |
|  |  |  |  |  |  |  |  |  |  |  | nued) |

Table X. (continued)

| Loc. | Name | Band No. | Days Fished | Number of Fish by Species |  |  |  |  |  |  | Immediate dog food tb |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 10 | 20 | 40 | 61 | 80 | 91 | 92 |  |
| 4 | Catholic, Vic. | 196 | 7 | 200 | ... | . | . $\cdot$ | $\cdots$ | $\cdots$ | $\cdots$ | 112 |
|  | Cook, Mrs. | . . | 30 | 300 | $\cdots$ | $\cdots$ | $\cdots$ | ... | . . | . | 360 |
|  | Enzoe, Aug. | 103 | 7 | 200 | - . | . $\cdot$ | . $\cdot$ | . $\cdot$ | . . | . $\cdot$ | 112 |
|  | Tassie, J. | 94 | 30 | 1,000 | . $\cdot$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 600 |
|  |  |  |  | 1,700 | $\cdots$ | $\cdots$ | * | $\cdots$ | $\cdots$ | $\cdots$ | 1,184 |
| 5 | Abel, Louis | 73 | ? | . $\cdot$ | 75 | $\cdots$ | - | . . | $\cdots$ | - . | 480 |
|  | Casaway, Z . | 134 | 30 | . $\cdot$ | - | - . | . . | . | $\cdots$ | - . | 540 |
|  | Marlow, P. | 201 | ? | 100 | 50 | 20 | 10 | 10 | ... | 10 | 600 |
|  | Michel, Chippy | $\cdots$ | 30 | 50 | . . | , | . . | . . | $\cdots$ | - . | 600 |
|  | Natih, Abet | ... | 30 | 160 | 42 | 20 | $\cdots$ | - | $\cdots$ | 10 | 600 |
|  | Petit-Pot, P. | 137 | ? | 25 | 25 | *. | . $\cdot$ | $\cdots$ | $\cdots$ | $\cdots$ | 100 |
|  | Rabesca, John | 144 | . $\cdot$ | 100 | 50 | 20 | 10 | 10 | - | 10 | 600 |
|  | Tassie, J. | 94 | ? | $\cdots$ | 75 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 600 |
|  |  |  |  | 435 | 317 | 60 | 20 | 20 | $\cdots$ | 30 | 4,120 |

Table XI. Estimated total catch and effort. Figures in parentheses are percentages.

| Location | Catch in Pounds |  |  | Total | No. of Nets |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Whitefish | Trout | Others |  |  |
| Snowdrift River | 16,647 | 0 | 2,857 | 19,504 (45) | $68^{\text {a }}$ |
| Stark River | 836 | 1,291 | 694 | 2,801 (6) | $18{ }^{\text {b }}$ |
| Stark Lake | 1,871 | 2,530 | 986 | 5,387 (12) | 35b |
| Ogilvie Lake | 6,756 | 0 | 888 | 7,644 (18) | $48^{\text {a }}$ |
| Great Slave Lake | 2,038 | 2,354 | 3,656 | 8,048 (19) | $24^{\text {a }}$ |
|  | $\begin{gathered} 28,148 \\ (65) \end{gathered}$ | $\begin{gathered} 6,175 \\ (14) \end{gathered}$ | $\begin{gathered} 9,081 \\ (21) \end{gathered}$ | 43,404 | 193 |

${ }^{\text {a }}$ Based on whitefish.
$\mathrm{b}_{\text {Based on }}$ average of whitefish and trout.

Table XII. Snowdrift residents and dog population for 12 -month period from November 1, 1960.

|  | Band |  | Months of Residence ${ }^{\text {a }}$ | Dogs |
| :---: | :---: | :---: | :---: | :---: |
| Name | Number | Count |  |  |


| ABEL | John | 191 | 1 | 12 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ' | Louison | 73 | 2 | 24 | 4 |
| " | Noel | 176 | 1 | 6 | 3 |
| " | Thomas | 175 | 6 | 72 | 7 |
| BASIL | Elizabeth | 98 | 4 | 32 | . |
| " | Moise | 191 | 3 | 36 | 3 |
| BOUCHER | Joe | 119 | 7 | 84 | 13 |
| CASAWAY | Jean | 176 | 3 | 36 | . |
| " | Zepp | 134 | 6 | 72 | 9 |
| CATHOLIC | Edward | 186 | 1 | 12 | 4 |
| " | Helene | 78 | 1 | 12 |  |
| " | Henry | 195 | 1 | 12 | 1 |
| " | Jean-Baptiste | 112 | 6 | 72 | 11 |
| " | John | ? | 1 | 12 | 3 |
| " | Victor R. | 196 | 1 | 12 |  |

Table XII. (continued)

| Name |  | Band |  | Months of Residence ${ }^{\text {a }}$ | Dogs |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Count |  |  |
| CATHOLIQUE | Jerome | 117 | 7 | 84 | 7 |
| " | Jonas | 177 | 8 | 96 | 1 |
| " | Pierre | 159 | 5 | 60 | 3 |
| COOK | Moneque | ? | 1 | 12 | 3 |
| " | Mr. | ? | 1 | 8 | . |
| DESJARLAIS | Alex | 167 | 1 | 12 | 5 |
| " | Louison | 97 | 1 | 12 | . . |
| " | Philip | 180 | 5 | 60 | 3 |
| DRYGEESE | Joe | 179 | 6 | 72 | 5 |
| " | Fierre | 71 | 1 | 12 | . |
| ENZOE | Augustine | 103 | 4 | 48 | 4 |
| " | Philip | 198 | 3 | 36 | 5 |
| FAT | Jim | 102 | 1 | 12 | 4 |
| " | Jpseph | 166 | 5 | 60 | 3 |
| " | Pierre | 183 | 1 | 12 | . |
| KLOTZE | Marie | ? | 3 | 36 | 10 |
| LOCKHART | Joe | 143 | 4 | 48 | 4 |
| " | Maurice | 135 | 8 | 86 | 8 |
| MARLOWE | John | 138 | 8 | 86 | 3 |
| " | Pierre | 201 | 1 | 12 | 5 |
| MICHEL | Chippy | ? | 4 | 45 | 5 |
| ' | Pierre | 133 | 3 | 36 | 3 |
| NATAWAY | Baptiste | 182 | 1 | 12 | . |
| " | Bruno | 181 | 8 | 96 | 6 |
| NATIH | Abel | ? | 5 | 60 | 5 |
| " | Marie | ? | 3 | 36 | . |
| PETIT-POT | Pierre | 137 | 2 | 24 | 4 |
| POWDER | George | ? | 2 | 8 | . |
| RABESCA | John | 144 | 6 | 72 | 5 |
| " | Marie | 111 | 1 | 12 | . |
| TASSIE | Adele | 93 | 1 | 12 | $\cdots$ |
| " | John | 94 | 4 | 48 | 5 |
| SUB-TOTAL |  |  | 158 | 1834 | 167 |
| NOISE | Red | Nil | 3 | 21 | 6 |
| STEINWAND | A. | NiL | 1 | 12 | . |
| School Teacher |  | Nil | 1 | 12 | $\cdot$ |
| TOTAL |  |  | 163 | 1879 | 173 |

${ }^{\text {a }}$ If in Snowdrift for 9 months or more, considered one year.


Fig. 1. Locations of domestic fishing at Snowdrift, N.W. T.


[^0]:    * The stretch of water between Stark Lake and Great Slave is shown on some maps, e.g., Snowdrift, $1: 50,000,75 \mathrm{~L} 10$ as the Snowdrift River. As a result of our recommendation dated Dec. 29,1961 , the name has been changed to the Stark River on the recent Hydrographic Service map, i.e., Chart 6341, First Edition, April 6, 1962. This change avoids confusion with the Snowdrift River which flows into Stark Lake from the south.

[^1]:    *Personal communication, A. Steinwand.

[^2]:    *The use of the generic name is a project convention to avoid the possible confusion between the round whitefish, Prosopium cylindraceum, and unprocessed (round) whitefish, Coregonus clupeaformis.

[^3]:    ${ }^{a} E=41 / 2^{\prime \prime}$ mesh, $I=51 / 2^{\prime \prime}$ mesh, Nylon or Cotton.

