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Angler Creel Census in the Lake Winnipegosis, Waterhen, Lake Manitoba and Dauphin Areas in 1977 and 1

DEPARTMENT OF NATURAL RESOURCES

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ABSTRACT

An intensive summer creel census was carried out in 1977 in Lake Winnipegosis, Lake Waterhen, Lake Manitoba, Dauphin River and the Fairford-St. Martin area. In 1978, the census was repeated in part of the Waterhen and in the Fairford-Dauphin River area. In a stratified sampling procedure, all fishing parties were interviewed on each sampling day as they left the angling site. Catch by species, hours spent angling, numbers of anglers per party and angler's place of residence were recorded. From each area, a sample of walleye were measured, weighed and had scale samples taken.

Angler's place of residence were as follows: Local residents ranged from 0.6% to 54.9%; other Manitobans ranged from 48.0% to 91.1%; Canadians ranged from 0.3% to 8.1%; and Americans ranged from 5.8% to 19.6% of the total numbers of anglers sampled for each area.

1977 walleye production for the census area between May 14 and September 9 was 113,100 \pm 18,700 pounds. Total numbers of other species caught were 1,800 sauger, 23,500 pike and 6,000 perch.

Success in 1977 ranged from 0.12 to 0.57 walleye per angler-hour over the selected areas.

In 1978, production at Dauphin River was similar to that estimated for 1977, while Waterhen production declined.

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INTRODUCTION

In 1977, an angler creel census was carried out in the Lake Winnipegosis, Waterhen, Lake Manitoba, Lake St. Martin and Dauphin River areas to determine the quantity of walleye and other game fish speices taken by anglers. In 1978, part of the same census was repeated to provide information about year-to-year changes in angling pressure and production.

All of the areas listed are either commercially fished or are directly adjacent to commercial fisheries. These commercial fisheries are managed primarily for walleye, and walleye is also the species most sought after by anglers; these two user groups are as a result, competing for a common resource. Because the resource is finite, neither group can be allowed unlimited access to it. Total available production must be allocated in some manner, and to do this, the impact of both groups must be known.

Commercial production information is relatively easy to obtain, but a reliable estimate of angler production is both more difficult and more costly to get. Prior to this census, information on angler walleye production was limited, although available evidence indicated that harvest by anglers was large, perhaps of the same order of magnitude as commercial walleye production in some areas.

Specific locations surveyed in 1977 included Curve Bay and the Overflowing, Red Deer, Steeprock, Sclater and Mossey rivers flowing into Lake Winnipegosis, all of the ten access points on the Waterhen Rivers, the Manipogo Campsite, Crane River and the Narrows on Lake Manitoba, the Fairford River Dam, the Big Rock Campsite on Lake St. Martin and Dauphin River, a

total of twenty-two angling sites (See Figure 1).

The 1978 census included the three most popular angling sites in the Waterhen system plus Dauphin River and Fairford.

METHODS

Data collection in 1977 was carried out from the opening day of walleye season (May 14 in all areas except streams entering Lake Winnipegosis, where the season opened June 1) until September 9, except at the Sclater and Mossey Rivers, three heavily used access points in the Waterhen, the Narrows and Dauphin River. In the first five areas, the data collection period was extended until September 30 and in the last two areas, the data collection period was extended until October 9. In addition, sampling at one minor Waterhen access point, LePerre's South Dock, did not start intil June 1; consequently no data was available for the month of May at this particular site.

Each of the access points was surveyed as a unit, that is, a separate sampling survey was designed and carried out and a production estimate was obtained for each access point. The design sampling and analysis procedures were as follows:

- (a) from previous creel census information, the number of sampling days required to get $\pm 20\%$ precision was determined.
- (b) on each of these sampling days, a complete count of the catch of a given fish species was obtained,
- (c) from the sample of complete daily counts, an average catch per day was calculated. This mean catch per day was multiplied by the total number of days in the sampling period to give an estimate of total catch during the sampling period.

Data collection in 1978 was carried out from May 13 to October 31 at the Waterhen access points and from May 13 to August 31 at Fairford and Dauphin River.

Each access poir: was surveyed on a randomly selected set of days throughout the sampling period, such that on each sampling day, a complete daily count of each attribute measured was obtained: each party of anglers was interviewed as it left the access point and number of anglers, number of hours spent fishing, number of each species of fish, anglers' place of residence and whether or not the party had been interviewed previously on that fishing trip was recorded for each party. Walleye taken through the access point were also subsampled at approximately 10% intensity to provide length, weight and age information, except in the Waterhen area in 1978, where this information was not obtained.

purpose of the stratification procedure was to remove variability in the data which was due to predictable differences between weekends and weekdays and among months, as opposed to unpredictable variability: the sampling period was divided into twelve strata consisting of the six months, May through October and two types of days within each month, weekends and weekdays, so that stratum one consisted of May weekdays, stratum two consisted of May weekends and so on. A sample of days was then selected at random from within each stratum.

The proportion of the total number of sampling days allocated to each stratum, at a given access point, was made to conform as closely as possible to optimum allocation (Cochran, 1963) based on available previous creel census information. In result, weekend days were sampled more intensively than week days, because it was expected that most of the fish produc-

tion would occur on weekends. The total number of sampling days at each access point was decided upon in advance, to result in an average of $\pm 20\%$ precision in the estimates of walleye production at each access point.

For a detailed description of design and analysis procedures, see Appendix 1.

RESULTS

(1) Production

Estimated 1977 production of walleye, sauger, pike and perch is given in tables 1, 2, 3 and 4 respectively. These estimated production figures represent totals for the areas indicated, except for the Lake Winnipegosis and Waterhen areas during the September 10 - September 30 period. During this period, only three out of the ten Waterhen access points were surveyed and only two of the six Lake Winnipegosis access points were surveyed. Consequently, the Lake Winnipegosis and the Waterhen 1977 production figures can be regarded as complete only up until September 9. Estimated production figures after September 9 represent an extension to the census as originally planned for these areas; lack of funds prevented a complete extension from being carried out. In any event, the main purpose of the extension was to obtain at least some information about fall angling, to determine whether or not this period should be included in future surveys.

Interval estimates for 1977 walleye production are given in table 5. The period of time for which each estimate applies is as indicated, and in each case is the longest period during which a complete survey was carried out. An estimated total poundage for all surveyed areas in 1977 is also given, for the period May 14 - September 9, which is the longest period of time for which complete data is available in all areas.

Production estimates for 1978 are given in table 6. Fewer walleye were caught in total at LePerre's camp, North Star north dock and Skownan in 1978 as compared to the same three locations in 1977 (significant at the 5% level). At Dauphin River, no significant change in walleye production occurred. 1977 production estimates for LePerre's camp, North Star north dock and Skownan are included in these tables, as are 1977 Fairford and Dauphin River estimates to August 31. This allows a direct comparison between the two years.

Place of residence is presented as local resident, Manitoban, Canadian (non-Manitoban) or American. Negligible numbers of anglers from other countries were encountered, and these numbers are not presented. Local residents were arbitrarily defined (see Figure 5). In all the areas surveyed local and other residents of Manitoba formed the majority of anglers present, while American anglers were generally second in abundance. Ion-residents of Manitoba (Canadians) were seldom encountered.

(2) Angler-Hours

Total hours spent angling in each area in 1977 are given in table 7.

(3) Angler's Place of Residence

Place of residence of anglers interviewed in 1977 is given in figures 2, 3, and 4.

For a complete list of data as collected at each access point, see Appendix 2. Production estimates for each access point including catch per angler-hour, are also provided in Appendix 2.

DISCUSSION AND CONCLUSIONS

The 1977 total walleye production estimate of 113,100 pounds should be regarded with certain reservations when considering the effects of angling pressure in the census area.

First, as indicated in table 6, this figure applies only to the period May 14 - September 9, and consequently cannot be considered an estimate of annual production. For example, 6,000 pounds of walleye were taken through the three largest Waterhen access points between September 10 and September 30. No data is available for the remaining seven access points for this period, but if the ratio of production of the larger three to the small seven established during the previous four months maintained itself, then approximately 9,900 pounds of walleye was taken from the Waterhen area between September 10 and September 30. This would give a May 14 - September 30 total of 46,100 pounds. No data were collected during October, but it appears likely that Waterhen walleye production for the whole of 1977 would be in excess of 50,000 pounds. Similarly, a total 1977 walleye production from all censused areas was probably at least 140,000 pounds.

Second, a certain amount of angling undoubtedly occurred at places not covered by the creel census, such as the Steeprock area on Lake Manitoba. It is likely that relatively more pike production was missed than walleye production, due to the generally greater availability of the first species; the amount of walleye production missed is probably small.

These precautions only apply to inferences about annual production or about pike production from an entire lake or series of lakes. Relative to the objectives of the census, the results are reliable.

A reduction in walleye production occurred between 1977 and 1978 for the part of the Waterhen area which was surveyed in both years. It appeared that this decrease was due to decreased effort by anglers. Total estimated angler-hours at LePerre's camp, North Star north dock and Skownan went from 55,000 in 1977 to 31,000 in 1978 (up to September 30 in both years). Average

number of walleye caught per angler-hour actually increased from 0.36 in 1977 to 0.60 in 1978. No significant difference was observed at Dauphin River, while Fairford showed a significant increase.

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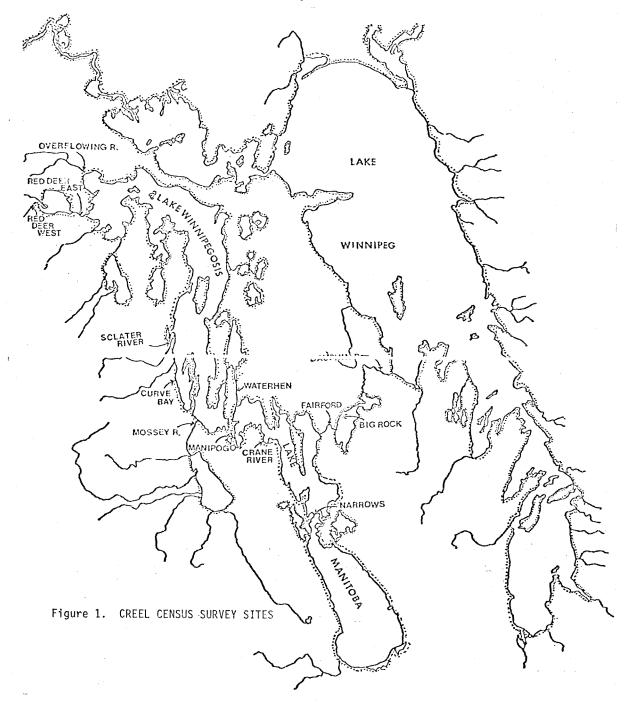
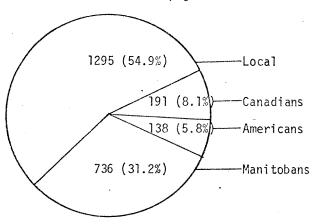


FIGURE 2. Numbers of Anglers and Place of Residence, 1977

Lake Winnipegosis Numbers of Anglers.



Waterhen Numbers of Anglers

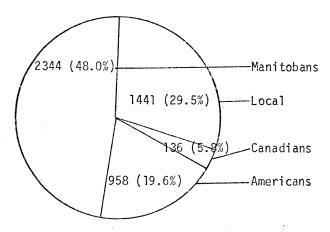
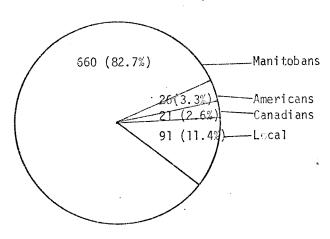


FIGURE 3. Numbers of Anglers and Place of Residence, 1977

Lake Manitoba (exc. Narrows) Numbers of Anglers



Lake Manitoba Narrows Numbers of Anglers

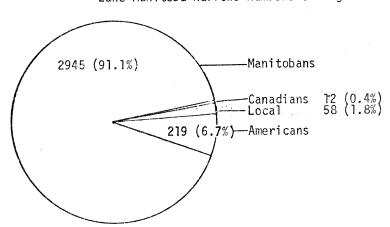
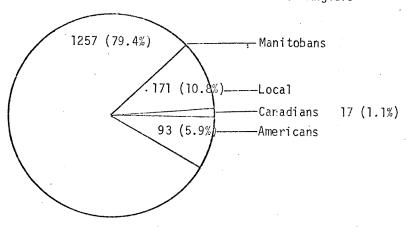
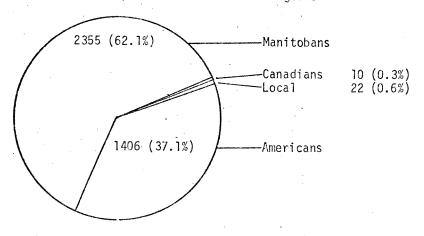


FIGURE 4. Numbers of Anglers and Place of Residence, 1977

Fairford-St. Martin Numbers of Anglers



Dauphin River Numbers of Anglers



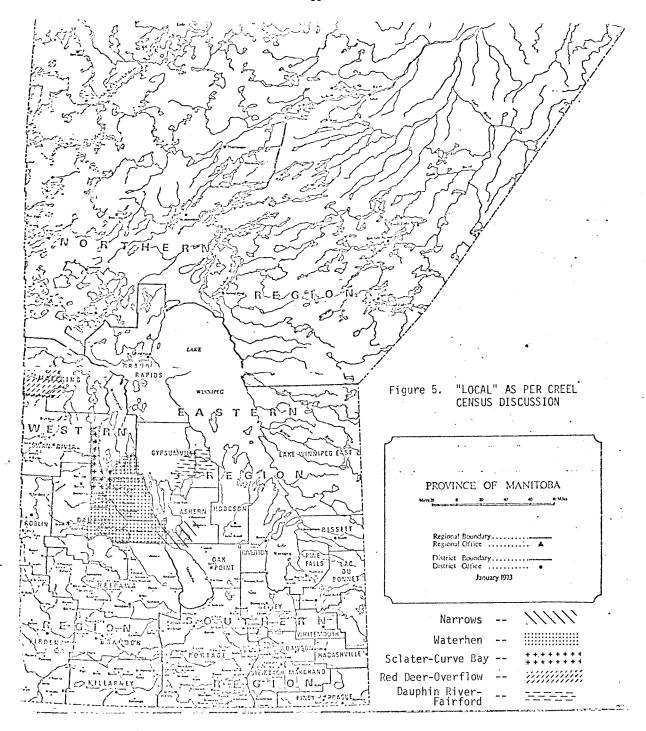


Table 1. 1977 Walleye Production (lb.)

	1	т	1		T
	May 14-31	June 1 - Sept. 9	September 10-30	∵ctober 1 -10	TOTAL
Lake Winnipegosis		15,300	1,500	-	16,800*
Waterhen	19,300	16,900	6,000	-	42,200*
Lake Manitoba - except Narrows	2,200	1,100		· -	3,300
Narrows	2,100	6,300	400	400	9,200
Fairford - Lake St. Martin	100	7,500	. -	· •	7,600
Dauphin River	17,700	24,600	4,700	1,200	48,200

^{*}These totals are incomplete, since the September 10-30 totals refer only to a subset of the access points, as described in the text.

Table 2. 1977 Sauger Production (Nos.)

May 14-31	June 1 - Sept. 9	September 10-30	October 1 -10	TOTAL
-	100	0	-	100
200	200	0		400
0	0	w.	-	100
400	700	200	0	1,300
0	200	- -	- -	200
0	0	0	0	0
	- 200 0 400	14-31 Sept. 9 - 100 200 200 0 0 400 700 0 200	14-31 Sept. 9 10-30 - 100 0 200 200 0 0 0 - 400 700 200 0 200 -	14-31 Sept. 9 10-30 1 -10 - 100 0 - 200 200 0 - 0 0 700 200 0 0 200 -

Table 3. 1977 Pike Production (Nos.)

	May 14-31	June 1 - Sept. 9	September 10-30	October 1 -10	TOTAL
Lake Winnipegosis	-	3,600	100	g	3,700*
Waterhen	1,900	2,500	100	-	4 , 500*
Lake Manitoba - except the Narrows	1,000	700	-	-	1,700
Narrows	1,300	1,800	100	200	3,400
Fairford - Lake St. Martin	1,300	1,600	<u>-</u>		2,900
Dauphin River	6,200	1,600	300	<u>.</u>	8,100

Table 4. 1977 Perch Production (Nos.)

	May 14-31	June 1 - Sept. 9	September 10-30	üctober 1 –10	TOTAL
Lake Winnipegosis	-	1,100	0		1,100
Waterhen	200	800	100	-	1,100*
Lake Manitoba - except Narrows	300	´ 300	- 	-	600
Narrows	700	2,200	100	0	3,000
Fairford - Lake St. Martin	0	100	- <u>-</u> -	<u>-</u>	100
Dauphin River	100	200	0	0	300

Table 5. 1977 Interval Estimates of Walleye Production (1b.)

AREA	SAMPLING PERIOD	ESTIMATE	PRECISION AS % OF ESTIMATE
1) Lake Winnipegosis	June 1 - Sept. 9	15,300 ± 2,900	19.0
2) Waterhen	May 14 - Sept. 9	36,200 ± 5,500	15.2
3) Lake Manitoba - except Narrows	May 14 - Sept. 9	3,300 ± 1,100	33.3
4) Narrows	May 14 - Oct. 9	9,200 ± 2,0 <u>0</u> 0	29.7
5) Fairford - Lake St. Martin	May 14 - Sept. 9	7,600 ± 2,300	31.0
6) Dauphin River	May 14 - Oct. 9	48,200 ± 17,200	35.7
TOTAL OF AREAS 1) through 6)	May 14 - Sept. 9	113,100 ± 18,700	16.7

Table 6. 1977 vs 1978 Walleye Production (Nos.)

	WALLEYE	SAUGER	PIKE	PERCH	ANGLER- HOURS
Leperre's) North Star North)-to Sept. 30/77 Skownan)	22,000	200	3,600	700	55,000
Leperre's) North Star North)-to Sept. 30/78 Skownan)	15,000	-	1,300	300	31,000
Fairford to Aug. 31/77	1,000	200	2,700		14,000
Fairford to Aug. 31/78	7,000	500	5,000	100	31,000
Dauphin Diver to Aug. 31/77	29 , 000	: . -	/,400	30r	51,000
Dauphin River to Aug. 31/78	27,000		3,500	100	48,000

Table 7. Estimated 1977 Angler-Hours and Number of Walleye Per Angler-Hour For Each Area.

AREA	SAMPLING PERIOD	ANGLER-HOURS	NO. OF WALLEYE PER ANGLER-HOUR
1) Lake Winnipegosis	June 1 - Sept. 9	30,00 0	0.28
2) Waterhen	May 14 - Sept. 9	78,000	0.44
3) Lake Manitoba - except Narrows	May 14 - Sept. 9	10,000	0.32
4) Narrows	May 14 - Oct. 9	48,000	0.12
5) Fairford - Lake St. Martin	May 14 - Sept. 9	21,000	0.28
6) Dauphin River	May 14 - Oct. 9	58,000	0.57

Appendix 1. Creel Census Design and Analysis of the Data

1) General

The statistical design used is well-known and is used for a wide range of applications, but to my knowledge, it has seldom been used for creel census work. More commonly used are various "roving" types of creel census, in which a body of water is patrolled, usually by boat and anglers are interviewed to determine their success while angling.

The two advantages of the design used here as compared to most roving designs are that the estimates of fish production are unbiased, and variances of the estimates are easy to calculate. Consequently it is a straightforward matter to determine the sampling intensity required to obtain the required level of precision.

The key element in this design is that a complete total for each attribute (number of fish, number of angler-hours, etc.) is obtained for each unit sampled. In this census, a 24-hour sampling unit was selected; within reasonable limits, a smaller or larger sampling unit would probably have worked as well.

Where this design would run into trouble would be a situation where anglers could access a lake at say, 100 different locations. Unless the census taker could cover a substantial fraction of the shoreline and interview exiting anglers, this situation would probably be too expensive to be practical. Unless stated otherwise, the following discussion is based on the design of the 1977 census only.

2) Design

To summarize the structure of the census, a stratified random

sampling design was used to estimate fish production and on each census day the set of attributes (number of walleye, number of angler-hours, etc.) was determined. The estimated total for each attribute was obtained by calculating the average daily value and multiplying this daily average by the total number of days in the sampling interval. A more detailed description is as follows:

a) Sampling and data collection

The following definitions apply:

Yih = the total number of walleye (or pike, etc.) caught on the ith sampling day, in the hth stratum.

nh = the sample size (number of days selected) in the hth stratum.

$$n = \sum_{h} n_h$$

= total sample size

 ^{N}h = size of the h^{th} stratum in days

$$N = \sum_{h} N_{h}$$

= the total number of days in the sampling period

$$W_h = N_h/N$$

= the proportion of the sampling period taken up by the $h^{\mbox{th}}$ stratum

Rather than taking a simple random sample of days, a stratification scheme was set up: it was expected that daily catches would be higher on weekends than on weekdays and higher in some months than in others. Therefore, the sampling interval was partitioned into strata consisting of May weekdays, May weekends, June weekdays and so on. A simple random sample was then taken from within each stratum. (Table 8)

Prior to conducting the census, it was necessary to decide how many

samples to take in total and also how many of these samples to take from within each stratum.

In order to select an appropriate sample size and allocation of sampling effort, some information about the probable pattern of walleye catches was required. In 1977, available preliminary data consisted of one 1972 creel census carried out on the Sclater River and another census done the same year on the Dauphin River. The Sclater data consisted of complete daily counts of walleye caught on 85 days between May and September, 1972, while the Dauphin River data consisted of incomplete daily counts of angler-hours on 42 days between June and August, 1972. It was assumed that angler-hours at Dauphin River would be positively correlated with the number of walleye caught, and consequently that the relationship among the within-stratum variances of daily angler-hours would be similar to the relationship among the within-stratum variances of daily walleye catches.

A formula for the determination of "n" to obtain a fixed level of precision in stratified designs is given by Cochrane (1963). Setting the "n $_h$ " proportional to "N $_h$. σ_h " insures that overall variance is a minimum for fixed "n". (This is known as optimum allocation and effectively means taking more samples in the larger, more variable strata.)

Sample size and optimum allocation were estimated from the 1972 Sclater River census and then checked against the Dauphin River census. The two agreed reasonably well, but where differences existed, emphasis was placed on the Sclater census since the Sclater data were more reliable. It appeared that a sampling intensity of 25% would be required to obtain ±20% precision, so an average of 25 days out of the 101-day (May 14 - September 9) sampling period was selected at each access point. However, because it was anticipated that greater production would occur at some access points than at others,

some precision was sacrificed at the less important access points in order to insure that sufficiently precise estimates would be obtained at the high production locations: the actual number of days sampled varied from a low of 17 at Crane River to a high of 35 at Dauphin River.

The allocation used also varied somewhat among the access points. In each case, the sampling days were allocated as close to optimal as possible, contingent on two factors. First, optimum allocation suggested applying less than two sampling days to certain strata, but a minimum of two days were sampled in almost all of the first eight strata so that a within-stratum variance estimate could be obtained without pooling. Meeting this condition in strata 9 and 10 (September 1 - 9) was not worth the cost involved because of the small size of these strata, so it was decided instead to pool strata 7 with 9 and 8 with 10 in most areas when calculating production. Second, because of the cometimes large number of access points being surveyed by a single crew of employees, it was not possible to sample certain strata as intensively as they should have been. For example, two crews of three people each were assigned to the ten Waterhen access points and, because of limited accommodation facilities, only one crew could be in the area at one time. Each member of a crew surveyed a different access point, so on a given sampling day, three access points were surveyed. There were a total of six days in stratum 2 (May weekends), so an average of only $(6 \times 3) / 10 = 1.8$ days of data could be collected at each access point during this stratum. Because the optimum allocation based on the 1972 data only recommended two samples in stratum 2, this did not appear to be a major problem.

3) Data Analysis

For each access point, an estimate of the total number of fish

caught was made using stratified estimation procedures as described in Snedecor and Cochran (1967).

a) Estimation of number caught

The mean number of walleye caught per day in the \mathbf{h}^{th} stratum is estimated by

$$\overline{Y}_h = \sum_{i=1}^{n_h} Y_{ih} / n_h$$

and the within-stratum variance is estimated by

$$s_h^2 = \sum_{i=1}^{n_h} (Y_{ih} - \bar{Y}_h)^2 / (n_h - 1)$$

The average number of walleye caught per day in the sampling period is estimated by

$$\overline{Y}_{si} = \sum_{h} W_{h} \cdot V_{h}$$

which is just an average of the within-stratum means, weighted by the sizes of the strata.

The total number of walleye caught during the sampling period is estimated by

$$\hat{\gamma} = N \cdot Y_{st}$$

The variance of $\hat{\mathcal{T}}$ is estimated by

$$\hat{V}(\hat{\tau}) = N \sum_{h} W_{h}^{2} \frac{s_{h}^{2}}{n_{h}} (1 - \emptyset_{h}),$$

where $(1 - \emptyset_h) = 1 - \left(\frac{n_h}{N_h}\right)$, the finite population correction factor.

An interval estimate of the total number of walleye caught during the sampling period was calculated as

$$\hat{\mathcal{T}} \pm 2\sqrt{\hat{V}(\hat{\mathcal{T}})}$$

b) Estimation of walleye production, expressed as weight

Using the weight information obtained from the 10% daily sub-sample of walleye, a mean individual fish weight was calculated for each stratum, at each access point. Since there was no reason to expect that the average weight of fish should be different on weekends than on weekdays, all of the weight samples obtained in a given month were used to obtain an average weight for the month and this same average was used for both strata (weekdays and weekends) in that month.

The average daily poundage for the sampling period was estimated by:

$$\bar{P}_{st} = \sum_{h} W_{h}. \bar{Y}_{h}.P_{h}$$
,

where " P_h " is the average weight of an individual walleye caught in the $h^{\mbox{th}}$ stratum.

Total poundage for the sampling period, and variance of this total were estimated the same way as were total numbers of fish, except that " Y_h " the average number of fish caught per day in the h^{th} stratum, was replaced by " $Y_h P_h$ ", the average number of pounds of fish caught per day in the h^{th} stratum.

The above procedure is not strictly correct, since it assumes that the average weight of walleye caught on a given sampling day is known exactly, when in fact it is estimated, based on a 10% sample of a given day's catch. In result, the estimated variance of total poundage is probably biased to some extent, either upward or downward. This can be best explained by use of an example: if a variable "y" has variance " \bigcirc^{2} ", then the variable $\not\equiv$ K.Y where "K" is a constant, has variance " \nwarrow^{2} ", and this is analagous to the procedure

followed here. If, however, "K" is another variable rather than a constant, then the variance of "Z" is not necessarily equal to " K^2 S^2 ", although if the variance of "K" is small, it should be close.

c) Estimation of total production

An estimate of total production for e.g. the Waterhen area was obtained as the sum of the estimated productions from each of the individual access points.

It was assumed that these estimates were independent of one another, which implies that an over or underestimate of production at one access point did not increase the probability of a corresponding over or underestimate at any other access point.

Since the sampling days for each access point were selected both at random and independently of one another, this assumption is probably justified. Consequently, an interval estimate of total production was obtained using the result that

$$V\left(\sum_{i}\hat{\mathcal{T}}_{i}\right) = \sum_{i}V\left(\hat{\mathcal{T}}_{i}\right),$$

or that the variance of a sum of independent random variables is equal to the sum of the individual variances.

4) Precision

It can be seen by inspection of table 5 that the relative precision of the production estimates varies considerably among the different areas. This variation is largely due to variation in the number of access points represented in the given estimates. For example, the estimated Waterhen walleye production is the sum of ten individual access point estimates. These

ten estimates are of comparable precision to the Dauphin River estimate, but their sum is more precise on a percentage basis, because the standard error only increases in proportion to the square root of the estimate itself.

It can also be seen from table 5 that the target level of precision ($\pm 20\%$) was not reached at most access points. This was mainly due to the unexpected large variability in daily walleye production in May. No May data was available from the 1972 Dauphin River census, while the 1972 Sclater River census did not show a great deal of difference between May and June. Consequently it was assumed, for lack of any better information, that average daily production in May would be only slightly higher than average daily production in June. This assumption was a poor one, and the result was that the sampling intensity during May, particularly May weekends, was too low; the estimates of May production were imprecise and the overall level of precision was reduced. After June 1, the precision of the estimates is generally closer to the target level. For example, a 95% confidence interval for June 1 - October 9 walleye production at the Dauphin River is 30,400 lb. \pm 8,000 lbs., which represents a precision level of \pm 26%, a considerable improvement over the \pm 36% confidence level obtained for the May 14 - October 9 period.

From table 1, the sampling allocation used at the Dauphin River for strata 1 through 12 was the following sequence of days:

It is possible to recalculate an optimum allocation based on the withinstratum variance estimates actually obtained in 1977. Given the same sample size of 44 days, the allocation which results is:

This suggests that more samples should have been taken in May (seven sampling days for May weekends represents 100% sampling intensity) and also in June,

with fewer samples in succeeding months. If this allocation had been used, \pm 14% precision would have been achieved.

If the same 44 days had been selected as a simple random sample, precision would have been ± 41%. The precision level which was actually achieved thus represents only a moderate improvement over simple random sampling. If a more efficient allocation had been used, precision could have been improved considerably with no increase in effort. At most of the other access points, May walleye production was less erratic, the allocation was closer to optimum and the design gave a greater improvement over simple random sampling.

At many of the access points, precision could also have been improved somewhat by pooling some or all of the strata as originally set up. In some cases, the best level of precision was obtained by using only two strata, May weekends and all other days. This pooling was not done except where necessary due to lack of a sufficient (size 2) sample in an individual stratum. Because of the relatively large number of access points involved in this study, analysis was confined to the original design to simplify the presentation of results.

In 1978, the following numbers of samples were taken at Dauphin River, strata 1 to 8:

This is not exactly the same as optimum based on the 1977 Dauphin River results, but it is close. As compared to the allocation actually used in 1977, sampling was more intensive in May, about the same in June and less intensive in July and August. The May 13 - August 31 interval estimate for walleye poundage at Dauphin River was $40,000\ \text{lb.} \pm 10,600\ \text{lb.}$, which represents a precision level of \pm 27%. The 1978 design gave a greater improvement over simple random

sampling than the 1977 design did, at a lower sampling intensity. The target level of precision (\pm 20%) was still not attained, however, due to large variability in July production. This suggests that an optimum allocation in one year is not necessarily the best allocation to use the following year, due to unpredictable changes in catch patterns.

Table 8. Number of Days Sampled in Each Stratum, at Each Access Point, 1977.

	MA	·Υ	JU	NE	JU	LY	AU	G.		PT. - 9		PT. -30	TOTAL
	WD	WE	WD	WE	WD	WE	WD	WE	WD	WE	WD	WE	
WINNIPEGOSIS													:
Curve Bay	-	-	11	3	2	2	0	0	0	0	-	-	28
Cverflow	-	-	4	2	4	2	4	2	1	1	-		20
Red Deer East	-	-	3	2	3	3	8	4	2	0	-	_	25
Red Deer West	-	-	2	3	3	3	2	1	1	1	-	-	16
Steeprock	-	-	4	3	4	2	2	3	0	2	-	-	20
Sclater	-	-	6	4	5	3	7	5	2	2	4	3	41
Mossey	-	-	3	3	2	3	1	1	1	1	2	2	19
WATERHEN													
Hill's	1	3	5	2-	4	5		3	1	2	-	-	29
I aParra 1 c	2	2	5	2	Ę	Λ	5	2	2	1	2	2	36
North Star	1	3	5	2	- 4	4	5	3	1	1	-	-	29
Waterhen Cabins	2	2	4	2	2	4	2	2	1	-1	_	-	22
Huhtala's	2	2	5	3	3	3	3	2	1	1	-	-	25
Baker's Point	2	2	4	2	2	2	2	2	1	0	-	· -	19
North Star North	2	2	5	3	6	3	4	4	2	0	2	2	35
Skownan	2	2	4	3	4	4	5	4	0	1	2	2	33
West Bridges	2	2	4	2	3	4	3	2	1	1	-		34
LePerre's South Dock	0	0	5	3	3	3	3	3	1	1	-	-	22
Manipogo	2	2	4	2	5	3	3	4	1	1	-	-	27
Crane River	2	2	3	2	2	2	2	2	0	0	-	-	17
Narrows	2	2	4	2	5	4	5	2	8	3	1	2	40
Fairford	3	2	5	4	5	4	4	1	1	0	-	-	29
Lake St. Martin	3	2	5	4	2	3	7	6	0	1	-	-	33
Dauphin River	3	2	5	4	4	5	5	3	4	5	2	2	44

Appendix 2. Individual Access Points Production Estimates, 1977.

1977 FAIRFORD walleye

strotum	#fish	std error	wt(1b)	opprox. s.e.	Q 1	no./a-h
max wd	33	9.4	44	12.4	391	0.08
WOA ME	1 4	0.0	19	0.0	1669	0.01
jun wd	255	100.2	338	132.6	1945	0.13
jun we	186	39.8	246	· 52.6	2379	0.08
jul wd	283	66.1	374	87.5	2570	0.11
jul we	266	51.6	351	68.3	1322	0.20
aua wd	859	324:0	1136	428.5	1665	0.52
+ sep wd						
aua me	. 2102	483.9	2780	640.1	3038	0.69
◆ term people blade dynam broke might bloke	Made 1977 Shree labor page	uphan James Milyon — collect Moder whoold habited afficial	Marie added blanc county whose county	oner some Madit Miller tonic back basis . Secc. here would been	West Wald down	pagine wagers party about more party.
total	3997	598.2	5287	791.3	14978	9.27

1977 FAIRFORD sauser

stratum 	#fish	std error	a-h	no./a-h
may wd may we jun wd jun we jul wd jul we aua wd + sep wd	4 4 75 36 20 8 2	3.1 3.0 21.7 7.1 10.6 2.8 1.8	391 1669 1945 2379 2570 1322 1665	0.01 0.00 0.04 0.02 0.01 0.01
total	0 148	0.0 25.7	3038 14978	0.00 0.01

1977 FAIRFORD pik	1	977	Pro Pro	1 /2	-	JEC II	- 0	1	К	E
-------------------	---	-----	-----------	------	---	--------	-----	---	---	---

stratum	#fish	std error	0,	no./a-h
may wd	, 521	154.0	391	1.33
Max Me	777	195.2	1669	0.47 0.31
jun wd	598	160.1	1945	
jun we	524	29.6	2379	0.22
jul wd	189	99.1	2570	9.07
jul we	36	9.1	1322	0.03
aus wd	70	39.9	1665	0.04
+ sep wd				
ana me	23	tion of	3 038	0.01
March addres Joseph Salbary (MAN) March 18777	garge from privat timbs image	heade double benefit to the topics proper proper		which shows speak armin union down
total	2737	316.0	14978	0.18

1977 FAIRFORD perch

stratum	#fish	std error	0,-17	no.∕o-h
	7	6.3	391	0.02
may wd	14	5.9	1669	0.01
May We		•a*a a* •a, •a,	1047	ด ดด
jun wa	174 184	1 8 1 , ~~9	ŽŠ79	0.00
jun we	6			
jul Wd	11	4,8	2570	9.99
jul we	8	2.8	1322	0.01
aus wd	19	9.5	1565	0.01
+ sep wd				
ona me	8	1.8	3033	0.00
Marie other which helps more more about	ecise ombe nosa court anni-	MED 1800 MINE THE SAME STOR SAME N'Y	motor stand magas	users sever seven agong where while these
total	82	16.3	14978	0.01

1977 CURVE BAY walleve

stratum	#fish	std error	wt(15)	OPPTOX: S.E.	<u>a - h</u>	no./a-h
may wd may we jun we jul wd jul we aua wd aua we sep wd sep we	0 772 200 495 116 0	observation(s) observation(s) 170.2 121.5 146.5 104.5 observation(s) observation(s) observation(s)	939 243 632 147	207.0 147.8 187.0 133.4	1222 383 728 550	0.63 0.52 0.68 0.21
total	1583	275,9	1962	342.7	2882	0.55

1	9	7	7	С	11	1	٠,	ļ.,	ΒA	Ų.	\$0.	I Fo	1 (22)	j.••
*	••.	*	ľ		'wee'	1.		leec.	in the	1	25 1.1	1.4 "	1 1	ľ

stratum	#fish	std error	0 - h	no./a-h
may wd may we jun wd jun we jul wd jul we aua wd aua we sep wd	0 oi 0 0 0 0 0 oi 0 oi	bservation(s) bservation(s) 0.0 0.0 0.0 0.0 servation(s) servation(s) servation(s)	1222 383 728 550	ତ. ଉପ ଅ. ଉପ ଅ. ଉପ ଅ. ଉପ
total	that seed while poor some		2002	0.00
•				
1977 CURVE	BAY pike	•		
stratum	#fish	std error	Q	no./a-h
may wd may we jun we juh we juh we ous wd ous we sep wd sep we	0 ob 154 64 78 88 0 ob 0 ob	servation(s) servation(s) 40.8 7.3 12.7 69.6 servation(s) servation(s) servation(s)	1222 383 728 550	9.13 0.17 0.11 0.16
total	394	82.0	2882	0.14
1977 CURVE	BAY percl	'n		
stratum	#fish	std error	a-h	no. /a-h
may wd may we jun wd juh we jul we aua wd aua we sep wd sep we	0 obs 72 40 75 22 0 obs 0 obs	servation(s) servation(s) 13.6 3.7 30.9 9.9 servation(s) servation(s)	1222 383 728 550	0.06 0.10 0.10 0.04
total	2 Ø 9	The state of the s		0.67

1	977	OVERFL	ПЫ	ara 1	leve

stratum	#fish	std error	wt(lb)	approx. s.e.	O man file	no./a-h
jun wd jun we jul wd jul we aua wd + sep wd	11 16 105 22 722	9.9 13.9 54.3 19.9 223.2	16 23 150 32 1035	14.3 19.9 77.9 28.5 319.8	430 678 518 303 1688	0.83 0.82 0.20 0.87 0.43
t sep we	696	63.5	997	91.0	1512	0.46
total		239.7	2253	343.5	5129	6.31

1977 OVERFLOW sauser

stratum '	#fish		error		no./a-h
jun wd	0		a.0	438	0.00
jun we	ğ		0.0 8.0	739 678	
2017	ξ _{α,} ,		en, so		0,00
www.com	ς,,,	,	D. D.	JIO	ម.១១
Jul we	Ø	ĺ	a.ø	303	0.00
aua wd	Ø		3.0	1688	0.00
+ sep wd				WE 22 491 542	~
aus we	Ø	1	a.ø	1512	0.00
+ sep we	•	·	er E Teac	de "me" de tirra	,
MATE these very servic hear easier some	Mary Maries occups about years	Made were states on	Out here year your poor	others radion delen	
total·	0	(0.0	5129	0,00

1977 OVERFLOW pike

stratum	#fish	std error	a-h	no.∕a-h
		model basing separat colonial separate	trade outs	seem about spine good other arms and
jun wd	165	54.2	430	0.38
jun we	132	107.4	678	0.19
jul wd	15	8.6	518	0.03
jul we	0	0.0	303	ดี. ดิด
aug wd	129	51.8	1688	0.08
+ sep wd				
aua we	116	85.3	1512	0.08
+ sep we			450 1041 off days	Tour B. Teer Sur'
NAME WAST STATE TROOP STATE STATE STATE	minde divers annue vannue beene	three agons upper	Drak gange hang	Make State and make State and with
t.o.t.o.l	5157	156 5	5199	@ 11

4	face from the	171.1	1 P**	for pro	1 00	1 1			1.	
i	977	1.10	/ E.	PC in	1. 1.1	i i	Full Inc.	1	Cr	ŀ

stratum	#fish	std error	014	no./a-h
jun wd	50	20.5	430	0.12
jun we	28	24.2	678	0.04
jul wd	35	25.7	518	ā.ā7
jul we	Ø	ē.ē	303	ā. ē
aus wd	28	19.7	1688	0.02
+ sep wd				
aus we	Ø	0.0	1512	0.00
+ sep we				
median allock declar billets descin Jacker 19019	Make their same also-	Mar state cover many water prints which apply	MANUAL AND TO AND THE	aller done while prior from alone word
total	141	45.3	5129	0.03

1977 RDE walleys

stratum	#/ish	std error	wt(1b)	approx. S.e.	a-h	no./a-h
jun wd	183	170.4	263	244.1	1166	0.16
Arron real	in a	ing one one	ã4	27.8	974	0.02
jul wd	793	623.1	1137	892.8	1473	0.54
jul we	220	131.4	315	188.4	1228	0.18
aus wd	701	349.9	1 คิคิร	501.3	1352	0.52
aus we	618	197.9	886	283.6	1506	0.41
sep wd	21	12.2	Ĩã	17.6	176	0.12
00-70 Month cloth navy basis track pages	Serve serve more writer bridge	Marie again from delet make your longs conti-		where more speak where where suggest supper subject advants pages abbeilt	more more Mené	WAST THEM SEEM STON) NAME BASIC SECUR
total	2561	772.4	3670	1106.9	7875	0.33

1977 RDE souger

stratum	#fish	std error	0	no./a-h
jun wd	0	0.0	1166	0.00
jun we	Ø	a.a	974	0.00
jul wd	Ø	0.0	1473	0.00
jul we	Ø	0.0	1228	0.00
aug wd	Ø	0.0	1352	ø.øø
aua we	Ø	0.0	1506	อ. ออ
sep wd	9	0.0	176	0.00
More trial signil more plant more com-	METER SHARE SHARE AND MAKES	ment later excess. Never taken planet spool valvo.	eno sene som	When Male Morre paper visite acres were
total	0	0.0	7875	0.00

1977 RDE	pike			
stratum	#fish	std error	a-h	no.∕a-h
	\$6.02 office week densy voice		Note dates agent	total state moon good, agent sayer total
jun wd	44	20.4	1166	0.04
jun we jul wd	9 13	0.0 6.1	974 1473	0.00 0.01
jul we	4	3.1	1228	0.00
aus wd	0	0.0	1352	9.90
aus we sep wd	อ ด	0.0 0.0	1506 176	0.00 0.00
	ŭ.	Table Britain	110	0:00
total	61	21.6	7 875	60 Ch 4
*******	O.T.	and a Co	roru	0.01
1977 RDE	perch			
stratum	#fish	std error	a-h	no.∕a-h
dern desse dense reput from belde soose	MBACK METOL CANAL SMALL LANGUE	METER STATE STATE WHILE MELLE AMONG MAJON MAINT	E-Adir Decol - NAME	Anne Mete peri para rate cons mana
jun wd	37	24.6	1166	0.03
jun we	Ø	0.0	974	ମ.ଡଡ
jul wd jul we	20 37	18.4 26.7	1473 1228	0.01 0.03
ous wd	11	6.6	1352	მ.მე მ.მე
ona me	12	9.8	1506	0.01
sep wd	0	ପ.ପ	176	0.00
which were some most many grown	Mage Steer servi visia assig	Chief worden transas : ranker angula transas appear puratu	Part (Marie 2004)	State laters much space white seas away
total	116	42.4	7875	0.01

197	7 1	PT	Hd	Li n	7	7	o va	
-----	-----	----	----	------	---	---	------	--

strotum	#fish	std error	ut(lb)	approx. s.e.	0	no./o-h
jun wd jun we jul wd jul we † sep we	0 11 0 0	0.0 8.4 0.0 0.0	0 27 0 0	0.0 21.1 0.0 0.0	454 327 280 534	0.00 0.03 0.00 0.00
t sep wd	0	0.0	Ð	0.0	S	9.89
total	1 100	8.4	27	more than ones were who show to , , , , , , , , , , , , , , , , , ,	1650	6.91

1977 RDW	sauser			
stratum	#fish	Etd Error	(<u>)</u>	no./a-h
jun wd jun we jul wd jul we + sep we	9 9 9	0.0 0.0 0.0 0.0	454 327 280 534	0.00 0.00 0.00 0.00
aua wd + sep wd	Ø	0.0	<u></u>	0.00
total	and took then they made	Ö. O	. 1650	0.00
1977 RDW (Pike			
stratum	#fish	std error	[]	no./a-h
jun wd jun we jul we jul we + sep we	253 187 115 69	73.4 86.3 55.4 40.7	454 327 455 534	0.56 0.57 0.35 0.13
aua Mq + seb Mq	Ø	0.0	56	0.00
total	619	137.5	1650	0.37
1977 RDW #	⊳erch			
stratum	#fish	std error	After some age.	no./a-h
jun wd jun we jul wd jul we + sep we aug wd	ଥ ଅ ଅ . ଅ ଅ	0.0 0.0 0.0 0.0	454 327 280 534 56	0.00 0.00 0.00 0.00
+ sep wd total	<u></u> <u></u> <u></u>	0.0	1650	0.00

1977 STEEPROCK walleye

stratum 	#fish	std error	wt(1b)	approx. s.e.	a-h	no./a-h
jun wd jun we jul wd + aus wd	103 11 10	85.4 8.4 9.1	140 15 13	116.7 11.5 12.4	759 393 110	0.14 0.03 0.09
jul we qua we sep we	77 0 0	69.6 0.0 0.0	105 0 0	95.2 0.0 0.0	323 33 0	0.24 0.00 0.00
total		110.9	272	151.6	1619	D. 12

1977 STEEPROCK sauser

stratum	#fish	std error	ŭ þ.i	no./a-h
Acceptance of the second of th		ខែត្រូ	(ay	២. ២២
jun we	ପ୍ର	0.0	393	0.00
jul wd + aua wd	0	ପ.ଟ	110	0.00
jul we	0	0.0	323	0.00
aus we	Ø	ā.ā	33	0.00 0.00
SEP WE	9	ð. Ö	Ø	0.00
server these street edges were retain to the	THE ACCUPANTS ASSET \$6000	MANUAL AND AND MANUAL STATES SHALL MANUAL STATES AND	NOTE ARTES SEASON	named notice became which making andays
total	· 0	0.0	1619	0.99

1977 STEEPROCK pike

stratum	#fish	std error	<u>a-h</u>	no./a-h
jun wd jun we jul wd + aus wd	147 24 10	65.0 19.0 9.1	759 393 110	0.19 0.06 0.09
jul we aua we sep we	6 6 0	5.0 4.9 0.0	323 33 Ø	0.02 0.18 0.00
total	1 1	the contract of the contract o	1619	0.12

1977 STEEPROCK perch

stratum	#fish	std error	o h	no./a-h
jun wd	169	105.8	759	0.22
jun we	13	10.5	393	0.03
jul wd	19	18.2	110	0.17
+ aus wd	ds u'	ale tear D Syray	as 30 as	
jul we	94	14.9	323	0.29
aus we	Ø	0.0	33	0.00
sep we	Ø	0.0	9	0.00
double miles gages value arrang be, it links	spece front acres more series	made areas popular (GATY day's bases balled classes	MALLA MALA MARA	saves come sugge tolers stated subset
total	295	108.9	1619	0.18

1977 MOSSEY RIVER walleye

stratum	#fish	std error	ut(1b)	lpprox. s.e.	C PT	no./a-h
jun wd	88	61.3	94	65.7	1384	0. 06
jun we	8	3.7	9	4.0	120	ð.07
Jul Wd	14	13.5	19	18.6	147	0.10
+ aus wd		10		سبور ر	رمين رمين رسم	, mar , mar , mar
jul we	10	8.9	13	11.5	320	0.03
+ ona me	_	w				,445, ,445, ,441,
sep Wd	0	0.0	Ø	0.0	22	0.00
sep We	Ø	0.0	Ø	0.0	23	0.00
Make trade service plants before before party	page core alone thin assas	adore corner project. Minary shade shows depute VMDE	prime stress desire helde more house	Mint 1989 along many bases after Made. paint many mint page.	Posts added added	magnet oppine antick states proper active active
total	122	63.5	135	69.4	2016	0.06

1977 MOSSEY RIVER sauger

stratum	#fish	std error	0	no./a-h
jun wd	51	37.9	1384	0.04
jun we	Ø	0.0	120	0.00
jul wd	0	0.0	147	0.00
+ aus wd				
jul we	Ø	0.0	320	0.00
+ aus we				
sep wd	Ø	ē.0	22	0.00
sep we	0	0.0	23	0.00
Mark steek scats about 19875 (56%) 18775	since when when price weigh	word were stalk office store and being nervy	2009 2009 893,00	Minist Service secure adjust Militer across aftern
total	51	37.9	2016	0.03

4	"see" sand sond	test end	C' 1 (" 1 1 - 1)	t had at tilkan	P**,
1	977	PIU	SSEY	' RIVE	R pike

stratum	#fish	std stror	C F1	no./a-h
jun wd jun we jul wd + ous wd	176 11 28	70.8 8.4 27.0	1384 120 147	0.13 0.09 0.19
jul we + aus we	E)	4.5	329	0.02
sep wd sep we	Ø Ø	0.0 0.0	22 23	0.00 0.00
total	Section of the same same same		2016	0.11

1977 MOSSEY RIVER perch

stratum	#fish	std error	011	no./a-h
jun wd	37	6.8	1384	0.03
jun we	3	2. i	120	ด. ดิว
jul wd	Ō	0.0	147	0.00
+ aus wd jul we	10	5.2	320	0.03
+ aus ws				
sep wd	0	0.0	22	0.00
sep We	Ø	0.0	23.	0.00
m can which while below more heart dorth	allel cape name anna tenne	Maric deeds 1964s	MATT 6544 MICH	mater, which ships seems there about
tatal	49	8.8	2016	A.A2

1977 SCLATER RIVER walleye

stratum	#fish	std error	wt(lb)	approx. s.e.	() mar 1	no./a-h
may wd		observation(s)				
May We		observation(s)				
jun wd	44	11.5	47	12.3	556	0.08
jun we	184	98.0	200	106.6	1551	0.12
jul wd	530	255.6	703	339.2	705	0.75
jul we	350	118.1	450	151.8	426	0.82
aua wd	1085	285.9	1495	393.9	1513	0.72
aua we	1127	331.1	164ñ	481.8	1634	8.69
sep Wd	1043	432.2	1729	716.5	1670	0.62
sep We	1613	466.2	2517	727.6	2232	0.72
their more special stage states where sales	proof thire about rather spaces	Miles where paper count count mean place show	alcol apper busing samps record samps	Miles which gamp (sold cores game pages). Games were writen must	MODE SEASE MANAGE	differ bijers gegan menne regan omner ngang
total	5976	827.3	8782	1256.9	10224	0.59

1977 SCHATER RIVER

stratum	#fish	std error	AMERICAN CONT.	no./a-h
may wd may we jun wd jun we jul wd jul we ous wd ous wd sep wd sep we		observation(s) observation(s) 0.0 0.0 0.0 0.0 0.0 0.0 0.0	556 1551 705 426 1513 1634 1670 2232	0.00 0.00 0.00 0.00 0.00 0.00 0.00
total	<u> </u>	per ann sen sen sen sen sen sen	19284	0,00
1977 SCLA	TER RIVE	R pike		
stratum 	#fish	std error	0	no./a-h
may wd may we jun wd jun we jul wd jul we aus wd aus we sep wd sep we		observation(s) observation(s) 24 8 255.9 127.6 87.9 28.8 14.2 34.2 36.1	1551 705 426 1513 1634 1670 2232	0.20 0.43 0.33 0.43 0.06 0.08 0.06
1977 SCLA	TER RIVE	R perch		
stratum	#fish	std error	O	no./c-h
may wd may we jun wd jun we jul wd jul we aua wd aua we see wd see we		observation(s) observation(s) 5.0 39.4 52.9 11.4 19.8 5.7 0.0	556 1551 705 426 1513 1634 1670 2232	0.01 0.05 0.12 0.09 0.03 0.01 0.00
totol	288	76.2	10284	Ø. Ø3

21 1977 FAIRFORD

dox 1357 1445 1554 1562 1572 1573 1574 1575 1575 1575 1575 1577 1575 1575		Walana 2000	01100017575112225041100000000000000	Pike 1449 1498 1784 1784 1784 1784 1784 1784 1784 178	r: 000000000000000000000000000000000000	0-h 216.7 216.3 260.3 260.3 260.3 260.3 261.3 260.3 261.3 26	wh. we
185 191	5	6 12	3	1 1 0	9	46.8 85.5	600.0 600.0 600.0

28 1977 BIG ROCK

day 197 198 199 204 214 217 225 223 233 234 236 246	str. 6655677888787789	wol. 16 30 35 15 65 187 9 16 60 112 16 234 22 571 343 61	50 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	pike 400730000000000000000000000000000000000	Perch 1 120340001 104120	0-h 6.0 26.0 39.0 20.0 63.0 381.5 33.0 44.0 122.0 6.0 24.0 88.0 741.0 660.0 91.0	wolleye mn. wt. 600.0 600.0 600.0 600.0 600.0 600.0 600.0 600.0 600.0
243	7	40	Ō	ī	õ	26.0	600.0

1	977	7 8	i	G	ROCK	bhil	1	7	جو ہوت	

		More carry before drawn black rittes beings round		OPPICX, S.E.	2-5	no./a-h
may wd may we jun we jul wd jul we aus wd aus we sep wd sep we		observation(s) observation(s) observation(s) observation(s) 189.7 136.7 428.5 440.7 observation(s)	661 538 1509 2091	251.0 180.8 566.8 582.9	590 367 1802 1931	0.85 1.11 0.63 0.82
total	3629	657.6	4800	869.9	4690	0,77

stratum	#fish	std error	wt(1b)	approx. S.e.	a-h	no./a-h
jul wd jul we aua wd aua we + sep we	500 407 1452 2395	189.7 136.7 572.0 585.3	661 538 1921 3168	251.0 180.8 756.6 774.1	590 367 2294 3338	0.85 1.11 0. <i>6</i> 3 0.72
total	4754	851.1	6288	1125.8	 6588	0.72

1977 BIG ROCK sauser

stratum	#fish	std error	(1, m, 1)	no./a-h
jul wd jul we du eus ew ase +	0 .0 4 0	0.0 0.0 3.5 0.0	590 367 2294: 3338:	ଥ. ପଥ ସ. ପଥ ସ. ପଥ ସ. ପଥ
total	see con our care care		6588	e, 80

4	and and	pro proper	program, and a st	
j.	211	BIG	ROCK	DIKE

stratum	#fish	std error	Q, 1011 PQ	no./a-h
jul wd jul we oue wd oue we + sep we	0 40 104 19	0.0 19.0 78.3 6.1	590 367 2294 3338	0.00 0.11 0.05 0.01
total	163	80.8	6588	0.02
1977 BIG	ROCK perch			
stratum	#fish	std error	0-h	no./o-h

Jul wd 20 19.0 590 0.03 Jul we 18 6.3 367 0.05 oue wd 32 17.9 22°4 0.01

WORKER CO., MARKET	***	E. 4 E.	ಫಿಎಎಲೆ	0.00
+ sep we				
News after these year most than these	March Street Street County	Make trade, other	THEFT MILES SHELD	
total	79	26.9	6588	0.01

1977 FAIRFORD wolleye

stratum	#fish	std error	wt(1b)	opprox. s.e.	g 1	no./o-h
may wd may we jun wd jun we jul we jul we aus wd aus we sep wd	33 14 255 186 196 160 28 1	9.4 0.0 100.2 39.8 51.5 50.7 18.8 observation(s) observation(s)	44 19 338 246 259 211	12.4 0.0 132.6 52.6 68.1 67.1 24.9	391 1669 1945 2379 3362 2038 740	0.08 0.01 0.13 0.08 0.06 0.08
total	271	121.5	1152	174.0	12524	0. 07

19	77	Fi	٩T	RF.	ORD	wa. I	1	eve
----	----	----	----	-----	-----	-------	---	-----

strotun	#fish	std error	ut(lb)	dpprox: 5.6.	g. – ľ1	no./a-h
may wd may we jun wd jun we jul wd jul we	33 14 255 186 196 285	9.4 0.0 100.2 39.8 51.5 100.6	44 19 338 246 259 377	12.4 6.0 132.6 52.6 68.1 133.1	391 1669 1945 2379 3362 3769	0.08 0.01 0.13 0.08 0.06 0.08
ew eun + bw eun bw asz +	28	19.7	37	26.0	784	0,04
total	997	157.7	1319	208.6	14299	0.07

1977 FAIRFORD sauger

stratum	#fish	std error	a-h	no.∕a-h		
more mant accel topic more excel error			391	0.01		
may wd	4	3.1	4 200 200	0 00 0.01		
jun wd	. 75	21.7	1945	0.04		
jun we	36	7.1	2379	0.02		
jul wd	28	15.1	3362	0.01		
ew lui + awe we	23	11.1	3769	0.01		
bw evo bw qsa +	១	0.0	784	0.00		
	grow three more name again	want effer bring fields stead lack). Wang below	made spide pools	enter seen, ser's great from poor more		
total	169	29.9	14299	0.01		

1977 FAIRFORD pike

stratum	#fish	std error	The same and	no./a-h
may wd may we jun wd jun we jul wd jul we	521 777 598 524 264 74	154.0 195.2 160.1 29.6 141.6 33.7	391 1669 1945 2379 3362 3769	1.33 0.47 0.31 0.22 0.08 0.02
+ oua we oua wd + sep wd	22	14.8	784	0.03
total	2780 .	331.3	14299	0.19

1977 FAIRFORD perch

strotum	#fish	std error	<u>a-h</u>	no./a-h
may wd may we jun wd jun we jul wd jul we	7 14 9 6 8	6.3 5.9 7.7 2.7 4.2 0.0	391 1669 1945 2379 3362 3769	0.02 0.01 0.00 0.00 0.00
+ sep wd bw dea +	8	0.0	784	0.00
total	44	12.6	14299	А. АА

1977 CRANE RIVER walleye .

stratum	#fish	std error	wt(lb)	opprox. S.C.	a-h	no./oth
. may wd may we jun wd jun we jul wd jul we aus wd aus we sep wd sep we	264 858 249 9 11 0 0	79.6 393.4 231.7 0.0 0.0 9.9 0.0 0.0 observation(s) observation(s)	283 920 267 0 12 0	85.4 422.0 248.5 0.0 10.7 0.0	314 1684 312 6 0 325 0 36	0.84 0.51 0.80 0.00 0.00 0.03 0.00
total	1386	463.6	1482	497.2	2676	0.52

1977 CRANE RIVER sauger

stratum	#fish	std error	0,-1	no./o-h
may Wd	11	0.0	314	0.04
May We	ŽΪ	S. G	1684	0.01
jun Wd		0.0	312	0.00
jun we	ā	0.0	6	0.00
jul wd	ē	0.0	. 0	0.00
jul we	ē	0.0	325	0.00
aua wd	Õ	0.0	Ø	0.00
aua we	8	0,0	36	0.00
sep wd	ē	observation(s)		
sep We	g	observation(s)		
bidg power years page month where partic	400X MSR MIN MIT WAS	abide rokas aren retst meet prins graps blede	MOVE MANG UNITE	since people which mappy Wilder model street
total	32	5.9	2676	0.01

1	97	-75	r" i	36	ìŀ	.1	E	D	TI	Æ	ED:	gare.	÷	Ł	
Ţ		ľ	۱ ۱	3.1	н	*		15.	T .		r.	100	J.	И.	·

stratum	#fish	std error	a-h	no./a-h
may wd may we jun wd jun we jul we jul we aua wd aua we sep wd		14.9 118.3 47.7 6.9 0.0 119.4 0.0 0.0 bservation(s)	314 1684 312 6 0 325 0 36	8.33 8.25 8.16 1.33 8.08 8.41 0.08
total	709	To the second se	2676	0.26
1977 CRAN	E RIVER p	erch		
stratum	#fish	std error	011	no./o-h
may wd may we jun we jun we iol wa jul we aus wd aus we sep wd		5.0 5.9 6.8 0.0 0.0 64.7 0.0 0.0 bservation(s)	314 1684 312 6 325 9 36	0.02 0.02 0.00 0.00 0.22 0.00
total	126	200 mm mm mass and	2676	0.05
ROWS walle)	 16	$= - \cos(\theta) + \cos(\theta$		
		or wt(1b) a	BBFAY. = 4	e a-h
P100 1000 1000 1000 1000		the second to the base of the base of	THE PROPERTY OF THE PARTY OF TH	w W 11

1977 NARR(

stratum	#fish					
SULUCUM	#1 1 2 (1	std error	wt(lb)	approx. s.e.	a-h	no.∕a-h
	110 110 110 110 110 110 110 110 110 110	allower refer to pulper travel return record spring Michel	handle private design impact private plants	deret gemm ingre errer hann gefor oggar seber mene r gefor redb	* 360% blood priget	1988 41 to 2000 More name of the Spenic
may wd	92	27.3	206	61.2	924	0.10
May We	837	269.2	1877	604. ī	5933	0.14
jun wd '	512	114.1	768	ĭ71.4	4870	0.11
jun we	552	159.3	829	239.3	6514	0.08
jul wd	604	277.8	636	292.6	3380	0.18
jul we	228	60.9	240	64.2	4628	0.05
aua wd	678	318.7	1063	499.7	4105	0.00
ona me	936	611.2	$\tilde{1}\tilde{4}\tilde{6}\tilde{8}$	958.4	5175	0.18
sep wd	422	71.2	964	162.6	4745	0.09
sep we	549	213.2	1254	486.8	5903	0.09
oct wd	1 c	bservation(s		1 Tank Tank Be Paper		Enter Surface
oct, we	138	1.9	314	4.4	1365	0.10
before species papers. Names officer common origins	SECON THESE AND A MOTOR OFFICE	meen etaca penal. Semi natus viens apag mays.	NYTH White reads aggre seems sange.	Mail 2006 7000 oach loop pays yilly hear sock Mrs quee	CTUTE ARMED APPROX	Mont man apple 15ths White Could arrive
total	5546	847.4	9618	1405.9	47543	Ø. 12

1977 MARROWS wallere

stratum	#fish	std error		opprox. s.e.	Q Fi	no. /a-h
may wd may we jun wd jun we jul wd jul we aus wd	92 837 512 552 604 228 678	27.3 269.2 114.1 159.3 277.8 60.9 318.7	206 1877 768 829 636 240 1063	61.2 604.1 171.4 239.3 292.6 64.2 499.7	924 5933 4870 6514 3380 4628 4105 5175	0.10 0.14 0.11 0.08 0.18 0.05 0.17
dua we sep wd sep we oct we	936 477 549 138	611.2 90.4 213.2 1.9	1468 1090 1254 314	958.4 205.5 486.8 4.4	5445 5903 1365	0.09 0.09 0.10
total	5681	849.2	9745	1411.7	48243	0.12

1977 MARROWS sauger

stratum	#fish	std error	0	no./a-h
may wd may we ion wd jul wd jul we aua wd aua we sep wd sep we oct we	22 340 160 228 56 61 31 99 111 90 5	9.4 186.4 18.8 58.9 16.8 26.0 9.9 31.7 29.7	924 5933 4870 6514 3380 4628 4105 5175 5445 5903 1365	0.02 0.06 0.03 0.03 0.01 0.01 0.02 0.02
total 1977 NARR	1201 OWS pike	206.3	48243	0.02
stratum	#fish	std error	a-h	no./a-h
may wd may we jun we jul wd jul we aus wd aus we sep wd sep we	334 970 440 420 164 198 242 165 128	82.9 286.9 146.2 86.6 57.5 30.6 90.7 127.0 20.2 25.6 40.7	924 5933 4870 6514 3380 4628 4105 5175 5445 5903 1365	0.36 0.16 0.09 0.06 0.05 0.04 0.04 0.03 0.03
totol	3413		The last care series	0.07

1	977	NARRO	HJC:	m co	rch
4	J 1 1	1 11 115, 15, 6	35M + 3	Par Pro	1 2 1 1

strotum	#fish	std error	0-17	no./a-h
may wd may we jun wd jun we jul wd jul we aus wd aus we sep wd sep we	146 546 534 534 524 524 41 63 6	42.3 213.0 49.7 273.7 61.7 211.2 93.0 19.8 18.5 16.9	924 5933 4870 6514 3380 4628 4105 5175 5445 5903 1365	0.15 0.09 0.11 0.08 0.07 0.11 0.06 0.01 0.01
total	2946	427.3	48243	0.06

978 DAUPHIN RIVER walleye

stratum	#fish	std error	ut(1b)	approx. S.e.	a-h	no./d-h
may wd	3295	1130.5	5941	2038.6	5599	0.59
MOY WE	6281	787.9	11327	1420.8	12527	0.50
jun wd	4871	1542.5	6701	2121.9	8994	0.55
jun we	4224	1009.9	5811	1389.3	8019	0.53
jul wd	3670	1641.2	4151	1856.1	4670	0.79
jul we	4670	ЗЙ89.4	5281	3494.0	5498	0.85
aus wd	ē	0.0	Ø	0.0	473	0.00
aua we	297	31.7	336	35.9	1816	0.16
sep wd	Й	observation(s)			
sep we		observation(s				
STORY SHARE WHAT SHARE STORY SHARE	mana distric materi alsolo epiga	person before spicer	Appen groups stagge marrie arrive	more many union state pages acces today — while state delay delay	was make and	penal force years were come white with
total	27308	4187.7	39547	5316.2	47506	0.57

1978 DAUPHIN RIVER sauger

stratum	#fish	std error	C 1	no./a-h
may wd may we jun we jul we jul we aus wd aus we sep wd sep we	9999999999991	0.0 0.0 0.0 0.0 0.0 0.0 observation(s) observation(s)	5599 12527 8904 8019 4670 5498 473 1816	0.00 0.00 0.00 0.00 0.00 0.00 0.00
total	a sa	The control of the co	47506	0.00

Europe Tomos militar Europe M

1	978	THE	IPH	TM	R Th	1 F F	pike

stratum	#fish	std error	u-F1	no./a-h
may wd	696	272.3	5599	0.12
may we jun wd	1631 664	143.5 271.2	12527 8904	0.13 0.07
jun we jul wd	306 30	101.3 9.5	8019 4670	0.04 0.01
ew lut bw eus	72 11	44.8 10. 5	5498 473	0.01 0.02
aua we sep wd	41	35.7 observation(s)	1 816	0.02
sep We	1	observation(s)		
total	3450	426.6	47506	0.07

1978 DAUPHIN RIVER perch

stratum	#fish	std error	a-h	no./a-h
may wd	ē	0.0	5599	0.00
may we	5	1.8	12527	0.90
jun wd	13	11.6	8994	0.00
jun we	22	5.8	8019	0.00
jul wd	0	0.0	4670	0.00
jul we	6	5.0	5498	0.00
aua wd	Ø	0.0	473	0.00
aua we	27	0.0	1816	0.01
sep wd	Ø	observation(s)		
sep we	1	observation(s)		
Seed state their Made seed place with	aport river repay began proce-	Name whose passes solve whose whose pages MMA	MEST tent poer,	parts were plants made Made plant Made
total	72	14.0	47506	0.00

1978 FAIRFORD walleye

stratum 	#fish	std error	wt (15)	opprox. s.e.	J }-1	no. / 0 h
may wd	1595	340.1	2539	541.4	3326	0.48
may we	1610	152.2	2563	242.3	3060	0.53
jun wd	1221	273.9	1943	436.0	4937	0.25
jun we	750	81.0	1194	128.9	7293	0.10
jul wd	952	470.4	1515	748.8	4423	0.22
ana me	336	44.8	534	71.3	3670	0.09
	365	11.9	588	19.0	4771 ·	0.08
total	6828	EEE 0	10040	1666 =	51.466	es es es

1	9	7 C	: F	1	T	17	L	n	RD	200	er.	 .23	<u></u>	ķ.

strotum	#fish	std error	C	no./o-h
may wd may we jun wd jun we jul wd + ayə wd	11 20 242 158 14	6.2 2.9 76.4 54.1 13.5	3326 3060 4937 7293 4423	0.00 0.01 0.05 0.02 0.00
jul we aus we	66 [.] 14	49.7 4.0	3670 4771	0.02 0.00
total	524	107.2	 31480	0.62
1978 FAIR	FORD pike	r		
stratum	#fish	std error	[] **** }]	no./o-h
may wd may we jun wa jun we jul wd	1216 1533 752 962 280	117.2 111.4 137.2 135.0 75.1	3326 3868 4937 7293 4423	0.37 0.50 0.15 0.13 0.06
t aus wd jul we aus we	198 90	109.4 39.7	3670 4771	0.05 0.02
total	5030	287.0	31480	0.16
		NA.		
1978 FAIR	FORD perc	h		
stratum	#fish	std error	a-h	no./a-h
may wd may we jun wd jun we jul wd	25 11 7 0 14	19.7 2.7 4.0 0.0 13.5	3326 3060 4937 7293 4423	0.01 0.00 0.00 0.00
jul we dua we	0 0	0.0 0.0	3670 4771	0.00 0.00

24.4

57

total

ners were later

0.00

31480

1977 DAUF	HIN RIVER		- 53 - `			
stratum	#fish	std error	ut (1b)	opprox. S.e.	C }-1	Maria e a comp
may wd may we jun wd jul wd jul we aua wd aua we sep wd sep we oct we	4352 9044 6455 3550 1310 1236 2130 2932 1571 2550 555	1883.4 1676.3 367.8 386.1 455.8 351.2 481.4	11977 8313 4572 2203 2079 4526 1256 3551 2746 422	7615.2 2425.7 2158.9 618.6 649.4 968.8	5468 17057 9122 7489 2796 3730 3592 1837 2708 3748 118 794	0.88 9.71 9.47 9.47 9.33 9.39 9.75 9.42 2.13
total		6466.6 PHIM RIVER		*8622.3	58458	0.57
	stratum		std error	a-h	no./a-h	
	may wd may we jun we jul we aus wd aus wd sep wd sep we oct wd oct we	0 13 4 0 0 0 0 5 0 0 3	0.07.6000007.0004.0001.9	5468 17057 9122 7489 2700 3730 3592 1837 2708 3748 118 794	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	
	total	25 2416 BIVED .	i a i	 58458	0.00	

1977 DAUFHIN RIVER pike

stratum	#fish	std error	Q	no./a-h
may wd may we jun wd jun we jul we jul we aue wd aue we sep wd sep we oct wd	1331 4893 440 366 · 85 112 97 36 184 509	440.1 1899.0 167.0 115.3 58.6 36.5 55.6 29.4 98.0 176.0 0.0 7.7	5468 17057 9122 7489 2796 3730 3592 1837 2708 3748 118 794	0.24 0.29 0.05 0.03 0.03 0.03 0.03 0.04 0.03
total	8078	1972.5	90450	G 1d

4	your west west	7", ,", 1 f	PATER	1.1	m, we car	er greet	
1.	211	BELL	F 11 1	F4 -	ra i Vb	16	perch

stratum	#fish	std error	o f1	no./a-h
Money with their sough words with first	daring despite before total tables	Many Many Review (Many Green Many Many Prints	Milital orient diabas	Model advant Aders School helps under selven
may wd	1.1	5.4	5468	0.00
may we	137	74.0	17057	0.01
jun wd	31	14.5	9122	0.00
jun wa	198	67.0	7489	0.01
jul wd	20	17.9	2796	0.01
jul we	7		3730	0.00
aua wd	4	3.9	3592	0.00
aus we	3	2.4	1837	0.00
sep wd	g	0.0	2708	0.00
sep we	11	5.8	3748	0.00
oct wd	g	0.0	118	0.00
oct we	0	0.0	794	0.60
Mint Miles Street Specie Leader Specie Street	Sides held West later dead	Marco state party	Mary Cours would	STATE ABOUT SLITS ARREST MANAGEMENT ARREST
total	331	102.8	58458	0.01

1977 FAIRFO..D walleye

stratum	#fish	std error	wt(1b)	OPPYOX. S.E.	0 1	no./a-h
may wd	33	9.4	44	12.4	391	0.08
MOY WE	14	0.0	19	0.0	1669	0.01
jun wd	255	100.2	338	132.6	1945	0.13
jun we	186	39.8	246	52.6	2379	0.08
jul wd	196	51.5	259	68. I	3362	0.06
jul we	248	85.7	328	113.3	3277	0.08
+ aus we			and Market and	At 4 10 10 101	'a' L 1	en a encen
ona mq	28	18.8	36	24.9	740	0.04
Mana game provid store 20000 store paties	didded witness scotter pages spring	Miles areas devide realist tendo to the second	more these many against some copyr	was open pres amor when layer took to the mind deno had	ments acquir appet	their steel time Mills labor labor labor
total	960	148.5	1269	196.5	13763	а. 07

1977 FAIRFORD sauser

stratum	#fish	std error	a-h	no.∕a-h
MODE SELECT SOLES SAME MARK SECUR SELECT	singer where wears probe special	contraction stage, contract state their play both	Miles stitus deser-	specification participants and and additional and
may wd	4	3.1	391	0.01
may we	4	3.0	1669	0.00
jun wd	75	21.7	1945	0.04
jun we	35	7.1	2379	0.02
jul wd	- ŽŠ	15.1	3362	0.01
jul we	20	9.5	3277	0.01
t aus we				
ona Mq	Ø	() . ()	749	0.00
More state and spage train date later	maken White commercial design	group change glasse arrows have their privile happed	for the second distant	east have solve some east, while the
total	166	29.3	13763	0.01

ŧ	977	7 [**	O T	r'ir	ORD	and 2.3 a.m.
T	266	, L	TT 1	17. 11	UEL	PIKE

stratum	#fish	std error	a-h	no.∕a-h
Mercel Service sales quality (Communication Joseph	anded space needs seems become	Shirth referre deaders areally taken gaping gaping transp	Mercan safres opens	1989 they state plug this area sec-
may wd	521	154.0	391	1.33
may we	777	195.2	1669	0.47
jun wd	598	160.1	1945	0.31
jun we	524	29.6	2379	0.22
jul wd	264	141.6	3362	0.08
jul we	64	28.7	3277	0.02
+ aug we				
ona Mq	6	5.9	740	0.01
state store trace green beaut pages many	siple milit sensi areas paga	make should shoot reach stops dispose there	some write bires	
total	2754	330.5	13763	0.20

1977 FAIRFORD perch

stratum	#fish	std error	Cl on fil	no./a-h
may wd	7	6.3	391	0.02
May We	14	5.9	1669	0.01
Jun wa	Ä	7.7	1945	0.00
jun we	Ė	2.7	2379	0.00
jul wd	8	4.2	3362	0.00
jul we	Ø	0.0	3277	0.00
+ aus we				
ana mq	9	0.0	740	0.00
Milit form base from 1600 Side place	ether river shaled marky oppose	where const years show the display stall when	SOAPA CARES MANAGE	THE PART HAVE MADE MADE SHELL KING
towal	44	12.6	13763	0 00

1977 SKOWNAN walleye

stratum	#fish	std error	wt(lb)	opprox. s.e.	C mark for	no./o-h
may wd may we jun we jun we jul we aue wd aue we sep wd sep we	710 1631 182 232 52 83 114 111 152 263	283.6 307.6 118.4 72.9 32.7 26.0 57.2 39.4 79.9	808 1858 187 240 61 96 147 143 251 451	323.1 350.5 122.3 75.3 38.1 30.3 73.4 50.6 132.0 32.6	509 4249 1331 615 326 400 497 230 263 741	1.39 0.38 0.14 0.38 0.16 0.21 0.23 0.48 0.58
total	the course where the property of the course	455,7	4242	526.0	9160	

1	977	SKOUNAN	SALISER
- 1	77 6 6	TOP LEGISTER	- 1 1 1 4 ml fm 1

stratum	#fish	std error	O M	no:/a-h
may wd may we jun wd jun we jul wd jul we aus wd aus we sep wd sep we	9 17 11 9 3 9 9	0.0 9.5 2.1 0.2 0.0 0.0 0.0	509 4249 1331 615 326 400 497 230 263 741	0.00 0.01 0.01 0.02 0.00 0.00 0.00 0.00
total	39	10.0	9160	0.00
1977 SKOW	MAN pike			we we then the control of
stratum	##124	std error	o. – h	no./a-h
may wd may wa jun wd jun we jul wd jul we aus wd aus we sep wd sep we	94 402 402 403 202 57 60 20	54.7 196.0 219.0 14.8 15.1 46.3 15.7 4.9 0.0	509 4249 1331 615 326 400 497 236 741	0.18 0.30 0.07 0.09 0.25 0.12 0.03 0.03
total	1384	297.6	9160	0.15
1977 SKOW	MAN perch			
stratum	#fish	std error	Q 1·1	no. on an or or
may wd may we jun wd jun we jul wd jul we aus wd aus we sep wd sep we	0 11 6 . 0 8 6 0 0	0.0 3.0 5.0 6.9 4.0 0.0 0.0	509 4249 1331 615 326 400 497 230 263 741	0.00 0.00 0.00 0.02 0.01 0.00 0.00 0.00
total	and the state and the control of the state o	10.0	9160	0.00

1977 LEPERRE'S walleye

stratum	#fish	std error	wt(1b)	OPPIOX. S. C.	Most were solds	no.zo-h
may wd may we jun wd jun we jul wd jul we aug wd aug we sep wd	974 2881 1470 845 904 410 1001 306	5.0 1056.0 516.7 340.3 186.4 92.1 353.8 132.3 267.7	1109 3282 1518 873 1055 478 1285 393 2176	5.7 1203.1 533.6 351.4 217.5 107.4 454.3 169.9 442.0	1522 6503 4566 3137 1956 1552 1981 1086 3434	0.64 0.44 0.32 0.27 0.46 0.26 0.51 0.28 0.38
sep We	507	148.3	868	254.1	2441	0.21
total	10614	1333.2	13037	1552.4	28178	0.38

1977 LEPERRE'S sauger

stratum	#fish	std error	a-h	no./α-h
Martin comma parets about their connec scores	Name of the owner	MACH MICH MADE SPANN SMALL MICH MICH MINE	value wasp stage	Many many many age of all the factor - have
may wd	22	9.9	1522	0.01
May We	35	0.0	6503	0.01
jun wd	53	17.9	4566	0.01
jun we	45	13.8	3137	0.01
erura waa		อิ.อิ	1506	ម. មិម
jul we	11	8.8	1552	0.01
aus wd	4	3.1	1981	0.00
aus we	9	0.0	1086	0.00
sep wd	Ø	0.0	3434	0.00
sep we	15	4.9	2441	0.01
Minima agrees notices agrees unders agrees covered	MICE WITH PARK SHIP ARES	Alles come trent made apide there apide contra	plane habit derri	-
total	185	26.9	28178	0.01

1977 LEPERRE'S pike

stratum	#fish	std error	[] »«« [·]	no./a-h
may wd	11	9.9	1522	0.01
May We	532	343.1	6503	0.08
jun wd	378	177.0	4566	0.08
jun we	237	91.9	3137	0.08
jul wd	60	23.2	1956	0.03
jul we	17	8.4	1552	0.01
aus wd	33	21.0	1981	0.02
0.49 We	51	20.9	1086	0.05
sep wd	42	13.4	3434	0.01
sep we	21		2441	0.01
ethe most when yield facts bings some	apell Made Meso mesh appar	miles raters thanks with albeit alther partile thread	. Japan saasi	After Signe and SSSS about book years
total	1382	399.1	28178	0.05

1977 LEPERRE'S perch

Stratum	#fish	std error	0. – ľa	no./a-h
		<u>.</u>		series come come pages device specie capaci
may wd	11	0.0	1522	0.01
MOY WE	109	26.6	6503	0.02
jun wd	57	24.9	4566	0.01
jun we	27	15.2	3137	ø.øi
jul wd	72	23.0	1956	0.04
jul we	55	24.0	1552	0.04
aus wd	66	27.4	1981	0.03
ana me	51	4.9	1086	0.05
sep wd	42	20.4	3434	0.01
sep we	51	20.9	2441	ē,ēž
Manual article before before beauty objects	strick event home about oping	ender that many want made serve	Start State Mana	notes done nind garge More meant appear
total	551	60.5	28178	0.02

1977 NORTH STAR walleye

<u>stratum</u>	#fish	std error	wt(lb)	OPPTOX: S.E.	a-h	no./o-h
may wd + jun wd	548	271.5	599	296.7	1777	0.31
May We	2382	739.3	2714	842.3	asee	a 50
jun we jul wd	395 80	56.6 28.2	408 93	58.5 32.9	1407 903	0.28 0.89
jul we	140 45	49.7	164	58.0	733	0.19
aus wd + sep wd	40	28.5	58	36.6	361	0.12
t sep we	101	54.8	162	88.3	481	0.21
dente februs recent palities Wilder January 1990y	THEOR THERE SAMES AND SHOW	mass system often object struct service master proisi	Serve manage process proper (MARY - update	Which minima markes beland James assess beings . Markes 1979; 1987a, 1987a.	produce the latest a county	
total	3691	794.1	4197	902.5	10229	0.36

1977 NORTH STAR sauger

Stratum	#fish	std error	0, 1 7	no./o-h
may wd + jun wd	7	6.1	1777	9.00
may we jun we jul wd jul we aus wd + sep wd	23 19 0 0 0	9.3 5.6 0.0 0.0 0.0	4566 1407 903 733 361	0.01 0.01 0.00 0.00 0.00
OUS WE + sep we	2	1.8	481	0.00
total		12.6	10229	<u> </u>

1	977	HORTH	STAP	mile
4.		115010 111	SECTION.	Fee T. F. 198

stratum	#fish	std error	011	no./a-h
may wd	20	12.2	1777	0.01
+ jun wd may we jun we	54 19	16.8 9.2	4566 1407	0.01 0.01
jul wd jul we		6.1 19.7	9 03 733	0.01 0.03
aua wd + sep ud	0	0.0	361	0.00
aua we + sep we	2	1.8	481	0.00
total	126	30.8	10229	0.61

1977 NORTH STAR perch

stratum	#fish	std error	a-h	no./a-h
may wd ! ಕಟ್ಟು ಜರೆ!	7	6.1	1777	0.00
may we jun we jul wd jul we aua wd	2 9 9 9	1.8 0.0 0.0 2.2 0.0	4566 1407 903 733 361	8.99 9.99 9.99 9.99 9.99
+ sep wd aug we + sep we	Ø	0.0	481	0.00
total	12	5 , 7	10229	0.00

1977 NORTH STAR N walleye

stratum	#fish	std error	wt(1b)	approx. s.e.	a-h	ro. /o-h
may wd may we jun wd jun wd jul wd jul we aus wd aus we sep wd	688 2482 440 272 276 308 352 352 1250 1809	621.9 902.2 206.6 101.7 122.5 161.5 84.0 110.8 233.3 369.1	783 2827 454 281 322 359 452 402 2063 3099	708.5 1027.9 213.4 105.0 143.0 188.4 107.9 142.3 385.1 632.2	595 3077 1482 1387 614 1936 1339 929 2205 3970	1.15 0.81 0.30 0.20 0.45 0.16 0.26 0.34 0.57 0.46
total	(m) 1 (m) (m) (m)	1226.7	11043	1500,3	17534	0.47

- 60 -1977 NORTH STAR N squaer

may wd 0 0.0 595 0.0 may we 4 3.0 3977 0.0 Jun wd 0 0.0 1482 0.0 Jun we 3 2.1 1387 0.00 Jul we 0 0.0 614 0.00 Jul we 0 0.0 1936 0.0 au9 wd 0 0.0 1936 0.0 au9 wd 0 0.0 1339 0.0 sep wd 0 0.0 2205 0.0 sep wd 2 1.7 929 0.0 sep wd 2 1.7 3970 0.86 total 11 4.3 17534 0.86 total 14 13 13	1977 NORTH	4 STAR N	squaer		
max we 4 3.0 3977 0.96 jun wd 0 0.0 14822 0.96 jun we 3 2.1 1387 0.96 jul we 0 0.0 1936 0.96 jul we 0 0.0 1936 0.96 aue wd 0 0.0 1339 0.06 aue we 2 1.7 929 0.06 sep wd 2 1.7 3970 0.06 sep wd 2 1.7 3970 0.06 total 11 4.3 17534 0.06 total 11 4.3 17534 0.06 may wd 33 19.9 595 0.06 may we 144 32.5 3077 0.06 may we 144 32.5 3077 0.06 jul we 115 22.0 1387 0.06 jul we 84 17.4 1936 0.0 <td></td> <td></td> <td>std error</td> <td></td> <td>no./a-h</td>			std error		no./a-h
1977 NORTH STAR N pike stratum #fish std error a-h no./a- may wd 33 19.9 595 0.06 may we 144 32.5 3077 0.05 jun we 115 22.0 1387 0.06 jul wd 96 83.1 614 9.16 jul we 84 17.4 1936 0.06 aug wd 61 24.9 1339 0.05 aug we 50 19.1 929 0.05 sep wd 67 32.9 2205 0.03 sep we 108 42.7 3970 0.03 total 816 116.3 17534 0.05 may wd 0 0.0 595 0.06 may we 7 0.0 3077 0.06 jun wd 6 5.0 1482 0.06 jun wd 6 5.0 1482 0.06 jun wd 3 2.1 1387 0.06 jun wd 3 2.1 1387 0.06 jun wd 3 2.1 1387 0.06 jun wd 3 0.0 614 0.06 jun wd 3 0.0 1936 0.06 jun wd 0 0.0 1936 0.06 jun wd 10 0.0 1936 0.06 aug wd 11 6.3 929 0.05 sep wd 22 14.1 1339 0.06 aug wd 11 6.3 929 0.05 sep wd 28 9.9 2205 0.05	may we jun wd jun we jul wd jul we aua wd aua we sep wd	4 8 3 9 9 2 9	3.0 0.0 2.1 0.0 0.0 1.7 0.0	3077 1482 1387 614 1936 1339 929 2205	0.20 0.20 0.20 0.20 0.20 0.20 0.20
stratum #fish std error a-h no./a-n	total	1 1	4.3	17534	0.00
may wd 33 19.9 595 0.06 may we 144 32.5 3077 0.05 jon we 115 22.0 1387 0.06 jul we 96 83.1 614 0.16 jul we 84 17.4 1936 0.06 aug wd 61 24.9 1339 0.05 sep wd 67 32.9 2205 0.05 sep we 108 42.7 3970 0.05 sep we 108 42.7 3970 0.05 stratum #fish std error a-h no./a- may wd 0 0.0 595 0.06 jun wd 6 5.0 1482 0.06 jun wd 6 5.0 1482 0.06 jul wd 0 0.0 614 0.06 jul wd 0 0.0 1936 0.06 jul wd 0 0.0 1936 0.06 jul wd 0 0.0 1936 0.06	1977 NORTH	H STAR N	pike		
may we 144 32.5 3077 0.05 jun we 115 22.0 1387 0.05 jul we 96 83.1 614 0.16 jul we 84 17.4 1936 0.05 aug we 50 19.1 929 0.05 sep wd 67 32.9 2205 0.03 sep we 108 42.7 3970 0.05 sep we 108 42.7 3970 0.05 stratum #fish std error a-h no.4a may wd 0 0.0 595 0.05 may we 7 0.0 3077 0.06 jun wd 6 5.0 1482 0.06 jul wd 0 0.0 614 0.06 jul wd 0 0.0 1936 0.06 jul wd 0 0.0 1936 0.06 jul wd 0 0.0 1936 0.06<	stratum	#fish	std error		no./a-h
1977 NORTH STAR N perch stratum #fish std error a-h no./a- may wd 0 0.0 595 0.06 may we 7 0.0 3077 0.06 jun wd 6 5.0 1482 0.06 jun we 3 2.1 1387 0.06 jul wd 0 0.0 614 0.06 jul wd 0 0.0 1936 0.06 aug wd 22 14.1 1339 0.06 aug we 11 6.3 929 0.06 sep wd 28 9.9 2205 0.06	may we jun we jul we jul we jul we aua wd aua we sep wd	144 61 115 96 84 61 50 67	32.5 22.0 22.0 83.1 17.4 24.9 19.1 32.9	3077 1480 1387 614 1936 1339 929 2205	0.06 0.05 0.04 0.08 0.04 0.05 0.05
stratum #fish std error a-h no./a- may wd 0 0.0 595 0.06 may we 7 0.0 3077 0.06 jun wd 6 5.0 1482 0.06 jun we 3 2.1 1387 0.06 jul wd 0 0.0 614 0.06 jul we 0 0.0 1936 0.06 jul we 0 0.0 1936 0.06 aug wd 22 14.1 1339 0.03 aug we 11 6.3 929 0.03 sep wd 28 9.9 2205 0.03	total	816	116.3	17534	Ø.65
may we 7 0.0 3077 0.0 jun wd 6 5.0 1482 0.0 jun we 3 2.1 1387 0.0 jul wd 0 0.0 614 0.0 jul we 0 0.0 1936 0.0 aug wd 22 14.1 1339 0.0 aug we 11 6.3 929 0.0 sep wd 28 9.9 2205 0.0				a-h	no./a-h
100 March 100 Ma	may wd may we jun wd jun we jul wd jul we aus wd aus we sep wd	0 7 6 3 0 0 22 11	0.0 0.0 5.0 2.1 0.0 0.0 14.1 6.3	3077 1482 1387 614 1936 1339 929	0.00 0.00 0.00 0.00 0.00 0.02 0.01 0.01

92

total

19.8

1.7534

0.01

1977 LEPERRE'S S D walleye

stratum	#fish	std error	wt(1b)	opprox. s.e.	a-h	norkanh
jun wd jun we jul wd jul we aus wd aus we	220 16 153 36 15	70.0 6.1 85.4 20.1 13.6 3.4	227 17 179 42 19	72.3 6.3 99.6 23.4 17.5 4.3	475 351 220 173 84 23	0.46 0.05 0.70 0.21 0.17 0.20
total	444	113.3	489	126.7	1326	9.33

1977 LEPERRE'S S D sauger

stratum	#fish	std error	ah	no./a-h
where areas pages paying allibra areas derived	part were stope error spoor	perior series people series series paper MAM	refere makes history	stant same terms along their stant littles
jun wd	4	3.9	475	0.01
jun we	Ø	0.0	351	0.00
jul wd	9	0.0	220	0.00
jul we	Ø	0.0	173	0.00
aua wd	0	0.0	84	0.00
ona me	Ø	0.0	23	0.00
SAME SOUND SPACE SPACE VALUE SPACE	oliced space bland dtate Minis	continued to the second	WHAT MAY HOUSE	worder haden belong under Month month street
total	4	3.9	1326	0.00

1977 LEPERRE'S S D pike

stratum	#fish	std error	a-h	no./a-h
,				
jun Wd	31	18.9	475	0.06
jun we	56	32.5	351	0.16
jul wd	0	0.0	220	0.00
jul we	Ø	0.0	173	0.00
aus wd	0	0.0	84	0.00
ona me	Ø	0.0		0.00
ment diver note majo early bloss and	These serve been gette years	MELT ERES PLACE	miles where course	affect burns many sugge Mind divisio whole
total	87	37.6	1326	0.07

1977 LEPERRE'S S D perch

stratum	#fish	std error	17	no./a-h
jun wd jun we jul wd jul we aus wd aus we	4 8 7 6 9	3.9 5.7 6.1 4.4 0.0 0.0	475 351 220 173 84	0.01 0.02 0.03 0.03 0.00
total	25	10.2	23 1326	0.00 0.02

1977 WEST BRIDGES walleye

stratum	#fish	std error	wt(1b)	approx. s.e.	a-h	no./a-h
may wd . may we . jun wd . jun we . jul wd . jul we . aua wd . t sep wd	. 303 459 39 184 0 41 336	124.4 245.5 22.1 159.3 0.0 19.1 246.0	345 522 40 190 49 431	141.7 279.7 22.8 164.5 0.0 22.2 316.0	880 2177 765 1167 153 390 428	0.34 0.21 0.05 0.16 0.00 0.10 0.78
aus we t sep we	172	75.0	255	111.3	709	0.24
total	1554	410.1	1832	488.5	6685	0.23

1977 WEST BRIDGES souver

stratum	#fish	std error	O	no./a-h
may wd may we jun wd jun we jul wd jul we aus wd + sep wd aus we	ଥ ଥ - - - - - - - - - - - - - - - - - -	0.0 0.0 5.0 3.5 0.0 0.0 0.0	880 2177 765 1167 163 396 428	0.00 0.00 0.01 0.00 0.00 0.00
+ sep we	Teat T	Total St. Saul		9.99
total	10	6.1	6685	0.00

1	97	7	М	18	T E	38	II	II, E	3	5	ik	=
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total .

1283

1	1977 WE	ST BRIDGES	Rike			
	stratum	#fish	std erro	r o o	no./a-h	
	may wd may we jun wd jul wd jul we aus wd † sep wo	61 140 44 60 13 3 6	34.8 112.4 24.4 52.0 12.3 2.2 5.1	880 2177 765 1167 163 396 428	0.07 0.06 0.06 0.05 0.08 0.01	
	+ sep we	4	3.5	709	0.01	
	total	330	131.7	6685	0.05	
	1977 WES	T BRIDGES	perch			
	stratum	#fish	std error	a-h	no.za-h	
	may wd may we jun wd jun we jul wd jul we aua wd + sep wd	0 14 77 4 33 3	0.0 11.2 63.2 3.5 22.2 2.2	880 2111 765 1167 163 396 428	0.00 0.01 0.10 0.00 0.20 0.01	
	t sep we	48	21.6	709	0.07	
	total	179	71.5	 6685	0.03	
1977 WATER	HEN CABINS	colleye				
stratum	#fish	std error	<u>wt(1b)</u>	opprox. s.e.	J 1	no./o-h
may wd way we ous wd ous wd ous we ous we	209 616 154 88 0 59 9	69.6 461.5 61.9 62.4 0.0 19.0 8.8 101.4	238 702 159 91 68 12 244	79.4 525.7 63.9 64.4 0.0 22.2 11.3 168.3	153 844 143 136 0 187 42 252	1.37 0.73 1.08 0.65 0.00 0.31 0.22

1514

565.6

1756

0.73

486.0

1977 WATERHEN CABINS souser

4 of 1 t 74111 to	1 to 3 has 5 1 Sec. 1 Back of	Elfaz accesses vivil el vivil e		
stratum		TO THE STATE OF TH	<u>,</u>	no./a-h
may wd may we jun wd jun we jul wd jul we aus wd aus we + sep we	9 14 9 4 9 9 9 9	0.0 5.9 0.0 3.5 0.0 0.0	153 844 143 136 0 187 42 252	0.00 0.02 0.00 0.03 0.00 0.00
total	18	6.9	1756	0.01
٠ .				·
1977 WATE	RHEN CABI	NS pike		
stratum	#fish	std error	<u> </u>	no. /oh
may wd may we jun wd jun we jul wd jul we aus wd aus we + sep we	62 36 99 26 24 24	5.0 8.9 5.0 0.0 21.9 0.0	153 844 143 136 0 187 42 252	0.04 0.04 0.09 0.09 0.14 0.00
total	92	31.5	1756	9.65
1977 WATE		NS perch std error	a-h	no./a-h
may wd may we jun wd jun we jul wd jul we aug wd aug we + ses we	8 - 21 9 9 9 9 9	0.0 17.7 0.0 0.0 0.0 0.0 0.0	153 844 143 136 0 187 42 252	0.00 0.02 0.00 0.00 0.00 0.00 0.00
total	21	1727	1756	A. A.

	77 HUHTALA'S wolle	a v	es s	2.5
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stratum	#fish	std error	ut(1b)	coprox. s.e.	ch	
may wd	99	69.6	113	79.4	80	1.24
may we jun wd	301 123	35.5 94.5	343	40.4	609	0.49
jun we	112	25.6	127 116	97.5 26.4	242 347	0.51
jul wd	147	93.8	171	49.5	347 627	0.32 0.23
jul we	73	33,1	ėė	38.6	358	0.20
aus wd	129	110.5	211	180.7	207	0.62
+ sep ud						
t sep we	148	112.9	248	189.5	274	5.54
The day was not that ever they	March Server - 1000 (1000) 10034	Miles could claim where sever claim claim sever	noted speed seeds seeds seen seems	only taken sample their makes under your . Once you'r cases daying	THE STATE SALES	MANY DATE STATE THAT SAME PROVIDE WATER
total	1132	224.5	1414	316.2	2744	0.41

1977 HUHTALA'S sauger

stratum	#fish	std error	a-h	no./a-h
May Wd May We Jun Wo	Ø 7	0.0 5.9	88 609 242	0.00 0.01 0.02
jun we bw lut sw lut bw euo	9 7 9	0.0 6.1 0.0 0.0	347 627 358 207	0.00 0.01 0.00 0.00
t sep wd ew eup t sep we	0	0.0	274	0.00
total	18	### ### ### ### ### ### ### #### ####	2744	0.01

1977 HUHTALA'S pike

stratum	#fish	std error	a-h	no.∕a-h
White proces proved spaces TMEH crisise outcome	Adding agents totally system	Midd What 1994. Many point read phase before	Miner symme grigs	MAN MAIN SAFES STARTS WITH MICH MINES.
may wd	Ø	0.0	80	9.99
MOLY WE	21	11.8	6 <u>8</u> 9	0.03
jun wd	18	15.5	242	0.07
jun we	24	19.0	347	0.07
jul wd	Ø	0.0	627	0.00
jul we	18	15.6	358	0.05
aus wd	Ø	0.0	207	0.00
+ sep wd				
0.49 WS	0	0.0	274	0.00
+ sep we				
whose princ bally dress while been used	most west west work hade	effects chaps chapter that the proper paper process paper process	Marine Marie Ababi	800° 4446 4443 35'/3 /5'444 5046 865'4
total	ខ1	31.4	2744	0.03

1	977	1-111	HT	AL A	18	perch	,

total

57

26.0

6273

0.01

	1900 NUN	inch o Mair	11			
	stratum	#fish	std error	17, 17	no./a-h	
	may wd may we jun wd jun we jul wd jul we aug wd + sep wd	ଥ ଥ ଥ ଥ ଅ ଅ ଅ ଅ	0.0 0.0 0.0 0.0 3.1 0.0	80 609 242 347 627 358 207	0.00 0.00 0.00 0.00 0.00 0.02	
	ous we t sep we	4	3.5	274	0.01	
	total	11	4.7	2744	0.00	
1977 HILL	'S walleye				•	
stratum		std error	wt(lb)	approx. s.e.	. ah	110 . 20
may wd + jun wd		198.1			413	0.65
may we jun we jul wd jul we aus wd + sep wd	2924 88 270 160 196	76.2 180.4 107.7	2648 91 315 186 298	78.7 78.7 210.6 125.7 164.8	2406 406 741 1189 728	0.97 0.22 0.36 0.13 0.27
aug we sep we	70 20	28.2 4.3	90 33	36.3 7.4	164 225	0.43 0.09
total	3396	1031.5	3940	1177.3	6273	() ₁ E 4
	1977 HILL	.'S souger				
Ł.	stratum	#fish*	std error	Q Fi	no./a-h	
	may wd + jun wd	Beer B _{eer}	5.0	413	0.01	
	may we jun we jul wd jul we aus wd	35 16 0 0	21.4 13.9 0.0 0.0 0.0	2408 406 741 1189 728	0.01 0.04 0.00 0.00 0.00	
	4 SEP WG SEP WE	ପ ପ	0.0 0.0	164 225	0.00 0.00	

1977 HILL'S pike stratum #fish std error a-h no./a-h may wd 22 19.9 413 0.05 + jun wd may we 98 19.1 2408 0.04 jun we 36 24.2 406 0.09 jul wd 50 23.7 741 0.07 jul we 72 31.3 1189 0.06 aug wd 7 6.5 728 0.01 + sep wd aug we 0 0.0 164 0.00 sep we 9 5.2 025 0.04							
may wd 22 19.9 413 0.05 + jun wd may we 98 19.1 2408 0.04 jun we 36 24.2 406 0.09 jul wd 50 23.7 741 0.07 jul we 72 31.3 1189 0.06 aug wd 7 6.5 728 0.01 + sep wd aug we 0 0.0 164 0.00 sep we 9 5.2 0.25 0.04 total 294 54.4 6273 0.05					.18 pike	1977 HIL	
+ Jun wd may we 98 19.1 2408 0.04 Jun we 36 24.2 406 0.09 Jul wd 50 23.7 741 0.07 Jul we 72 31.3 1189 0.06 aug wd 7 6.5 728 0.01 + sep wd aug we 0 0.0 164 0.00 sep we 9 5.2 0.25 0.04 total 294 54.4 6273 0.05		no./a-h	a-h	std error	#fish	5 t r g t 140	
may we 98 19.1 2488 0.04 jun we 36 24.2 406 0.09 jul wd 50 23.7 741 0.07 jul we 72 31.3 1189 0.06 aug wd 7 6.5 728 0.01 + sep wd aug we 0 0.0 164 0.00 sep we 9 5.2 0.25 0.04 total 294 54.4 6273 0.05		0.05	413	19.9	22		
aus we 0 0.0 164 0.00 sep we 9 5.2 225 0.04 total 294 54.4 6273 0.05		0.09 0.07 0.06	406 741 1189	24.2 23.7 31.3	50 72	ew nui ew nui bw lui ew bw	
total 294 54.4 6273 0.05			164 225	0.0 5.2	9	ana me	
		0.05		54, 4	294	totař	
1977 HILL'S perch						1977 HILL	
stratum #fish std error a-h no./a-h			a-h	std error	#fish	stratum	
may wd 11 9.9 413 6.03 + jun wd		0.0 3	413	9.9			
may we 23 7.7 2408 0.01 Jun we 4 3.5 406 0.01 Jul wd 15 13.4 741 0.02 Jul we 39 24.9 1189 0.03 aug wd 56 35.1 728 0.08 + sep wd		0.01 0.02 0.03	406 741 1189	3.5 13.4 24.9	23 4 15 39	may we juh we juh we aua wd	
aug we 7 3.2 164 0.04 sep we 5 0.9 225 0.02			164 225			aua we	
total 159 47.1 6273 0.03				47.1	159		
1977 BAKER'S POINT walleye					alleve	'S POINT w	1977 BAKER
stratum #fish std error wt(lb) approx. s.e. a-h	no./a-h			wt(1b)	std error	#fish	stratum
may wd 121 19.9 138 22.7 96 may we 420 100.6 479 114.6 873 jun wd 44 40.9 45 42.2 147 jun we 96 76.2 99 78.7 128 jul wd 60 37.9 70 44.3 100 jul we 18 11.3 21 13.2 59 aug wd 117 109.0 151 140.0 73 aug we 9 7.9 12 10.2 27	1.26 0.48 0.30 0.75 0.60 0.31 1.60	873 147 128 100 59 73	114.6 42.2 78.7 44.3 13.2 140.0	479 45 99 70 21 151	100.6 40.9 76.2 37.9 11.3 109.0	420 44 96 60 18 117	may we jun wd jun we jul wd jul we aus wd

0.59

1503

total

177.5

1015

208.5

886

1977 BAKER'S POINT sauser

stratum	#fish	std error	Comment of the company	no./a-h
may wd	Ø	0.0	96	0.00
May We	ã	й.й	873	0.00
jun wd	Ž	6. ĕ	147	0.05
jun we	Ø	0.0	128	0.00
jul wd	Ø	0.0	100	0.00
jul we	Ø	0.0	59	0.00
owa wd	0	0.0	73	0.00
gha me	Ø	ë . 0	27	0.00
what don't defer each age, who were larve	State most brest over lasge	Marie about court. Mari massa pener stone probe	nione obtain group	make these space space while sends and soul
total	7	6.8	1503	0.00

1977 BAKER'S POINT pike

stratum	#fish	std error	a-h	no./a-h
major red	Gi	ଉ ଜ	ಂದ	a គេក ·
may We	11	8.9	873	ē.ēī
jun wd	Ø	0.0	147	0.00
jun we	0	0.0	128	0.00
jul wd	Ø	0.0	100	0.00
jul we	Ø	0.0	59	0.00
aua wd	0	0.0	73 ·	0.90
ana me	Ø	0.0	27	0.00
whole said mile may have your	galla Verre name igner oppos	space types space and space and space added wearth	Speak depter depter	FIRST NAMES AND PROPERTY STATES
total	11	8.9	1503	0.01

1977 BAKER'S POINT perch

stratum	#fish	std error	a-h	no./a-h
SPANIC MISSE MADE SAME WANT NAME AGAIN.	fields after when excite spage	1979 wast- 20-16 Miles 20-14 East Miles Miles	feets many board	MIN'S MILITE SHIPE MARRY 2000 VALUE SAINE
may wd	Ø	0.0	96	0.00
May We	. O	0.0	873	0.00
jun wd	Ø	0.0	147	0.00
jun we	0	0.0	128	0.00
jul wd	Ø	0.0	100	0.00
jul we	9	0.0	59	0.00
ana mq	Ø	0.0	73	0.00
ona me	0	Ø.Ø	27	0.00
Security design proper private part a page.	seen most sees total	Series 19445 conserve tourist and in Media 20035 training	static marks appear	habit Befor water stage 68000 trials 11500.
total	0	0.0	1503	0.00

1977 LEPERRE'S walleye

stratum	#fish	std error	wt(1b)	approx. s.e.	o-h	no. /o-r
may wd	974	5.0	1109	5.7	1522	0.64
May We	2881	1056.0	3282	1203.1	6503	0.44
jun wd	1470	516.7	1518	533.6	4566	0.32
jun we	845	340.3	873	351.4	3137	0.27
jul wd	904	186.4	1055	217.5	1956	0.46
jul we	410	92.1	478	197.4	1552	0.26
aua wd	1001	353.8	1285	454.3	1981	0.51
ana me	306	132.3	393	169.9	1086	0. 28
sep wd	1318	267.7	2176	442.0	3434	0.38
sep we	507	148.3	868	254.1	2441	0.21
done seem when yield hitter come your !	Aperi Minir strips appet typis	March 1996 than 1988 April 5496 Style MARK	meet seep spare toping seems upon	special fields and white white design deem water lawed angue		Marine deller brakk offens delter tepley debug
total	10614	1333.2	13037	1552.4	28178	Ø.38

1977 LEPERRE'S sauser

stratum	#fish	std error	a-h	no.∕a-h
Martin (6.00) 24300 Master SMCC1 Auditor SmcC1	these spent store store state	with stery most	WITH ANTE APROP	should reveal models bridge many combin develop
may wd	22	9,9	1522	0.01
May We	35	0.0	6503	0.01
jun wd	53	17.9	4566	0.01
4	A 127	10.0	2400	6.61
jul wd	ē	0.0	1956	ē.00
jul we	11	8.8	1552	0.01
aua wd	4	3.1	1981	0.00
aua we	Ø	0.0	1036	0.00
sep wd	Ø	0.0	3434	0.00
ser We	15	4.9	2441	0.01
-MARK Sormer Making Apprils makket , undert	chees which were reducing	mann an de nidde - made mallen ladden sville agues	******	More over being upon when our come
total	185	26.9	28178	0.01

1977 LEPERRE'S pike

stratum	#fish	std error	a-h	no.∕a-h
passe tract which could listed lates were	highly profit draft prints prints	diffed partic square . Souther secure supply appeal, training	ATTAC MANAGE (ATTACK)	Made place shart gange throw code diplo-
may wd	11	9.9	1522	0.01
May We	532	343.1	6503	0.08
jun wd	378	177.0	4566	0.08
jun we	237	91.9	3137	0.08
jul wd	60	23.2	1956	0.03
jul we	17	8.4	1552	0.01
aus wd	33	21.0	1981	0.02
aug we	51	20.9	1986	0.05
sep wd	42	13.4	3434	0.01
SEP WE	21	6.5	2441	0.01
Story about team mates we've gater acres	pipe himm nime their signi	mare plant hater byder wedle abide bleaf area-	STORY NOTE: Alley	Move dance area spage week were taken
total	1382	399.1	28178	0.05

1977 LEPERRE'S perc	1977	LE	P	E	RR	E	: 5	PE	ro	ŀ
---------------------	------	----	---	---	----	---	-----	----	----	---

stratum	#fish	std error	0	no./a-h
may wd may we jun wd jun we jul wd jul we aus wd	11 109 57 27 72 66 66	0.0 26.6 24.9 15.2 23.0 24.0 27.4	1522 6503 4566 3137 1956 1552 1981	0.01 0.02 0.01 0.01 0.04 0.04
aua we sep wd sep we	51 42 51	4.9 20.4 20.9	1086 3434 2441	0.05 0.01 0.02
total	551	65.5	28178	0.02

1977 NORTH STAR N walleve

stratum	#fish	std error	wt(1b)	approx. S	s.e. a-h	no.∠a-h
their most varie spring miled more cause	takes with which parts campy	Mark Steel width Mark when which steel with	Most time time wher their sheet	Mary 1000 Mary 1000 1000 1000 1000 1000	NOTE OF THE PART NAME AND	course before bejond blinch under Meder States.
Mux wä	555	521.3		المعلو إلحاد المعلم المرية المالية الأ	المناس	us up green us as the teach
MOY WE	2482	902.2	2827	1027.9	3077	0.81
jun wd	440	206.6	454	213.4	1482	0.30
jun we	272	101.7	281	105.0	1387	0.20
jul wd	276	122.5	322	143.0	614	0.45
jul we	308	161.5	359	188.4	1936	0.16
aus wd	352	84.0	452	107.9	1339	0.26
aus we	313	110.8	402	142.3	929	0.34
sep wd	1281	307.1	2115	507.1	2103	0.61
sep we	1536	477.0	2631	817.1	3354	0.46
white state your paper work word plane	harden manne blocke redeal belleds	More prior plans. Nove years prior trape More	SPEED MAKES SHAPE SAMES SPEED VACAN	Name of the ballots where server better strate or	only with the same and	manuse Address marries and an account resident
total	7947	1279.1	10627	1621.0	16816	0.47

1977 NORTH STAR N sauger

stratum	#fish	std error	() (°)	no./d-h
may wd	Ø	0.0	595	0.00
May we	4	3.0	3077	0.00
jun wd	8	0.0	1482	0.00
jun we	3	2.1	1387	0.00
jul wd	ø	ē.ē	614	0.00
jul we	Ø	0.0	1936	0.00
aua wd	. 0	0.0	1339	ø.øø
aua we	2	1.7	Pažė	0.00
sep Wd	Ø	0.0	2103	ø.öö
sep we	3	2.4	3354	0.00
•		e e		
Ment mass being their train traps area	STATE WATER MARKS AND A TAKEN	etype collect degree	AMAL release sound	proper reader places throat prets dends
total	1 1	4.7	1 6 616	0.00

1977 NORTH STAR N pike

Strutum	# (1 5)	std error	(*) ***** ****************************	no./a-h
may wd may we jun wd jul wd jul we aus wd aus we sep wd	33 144 61 115 96 84 61 50 47	19.9 32.5 22.1 22.0 83.1 17.4 24.9 19.1 42.5 54.1	595 3077 1482 1387 614 1936 1339 929 2103 3354	0.06 0.05 0.08 0.08 0.05 0.05 0.02
total		123.9	16816	9. 05

1977 NORTH STAR N perch

stratum	#fish	std error	a-h	no./a-h
		water about year) lives speed regar tongs about	. didne order state	name was give proc over two was
was red	r*s	eme em	Offere and genin	
275.000.000	"hee" heery	Contraction Contraction	의 기교	M. 90
May We	r ^r	0.0	3077	0.00
jun wd	5	5.0	1482	0.00
jun we	3	2.1		
jul wd			1387	0.00
	0	0.0	614	0.00
jul we	Ø	0.0	1936	0.00
aug wd	22	14.1	1339	
· · · · · · · · · · · · · · · · · · ·				0.02
ona me	1 1	6.3	929	0.01
sep wd	21	13.4	2103	0.01
SEP We	12	6.5		
	di ku	(_m) a _{ku} !	3354	0.80
MINN area to on Assa meta upon narya	SMED MARK MAN 19915 GREAT	where have (0.1) ables have were these areas	19874 Applys Julius	when deline would prosp make power street
total	81	22.1	16816	Or Cross

1977 SKOWNAN walleye

stratum	# + 1 = +1	std error	ut(1b)	approx. s.e.	17. mars 10.	no./a-h
may wd may we jun we jul wd jul we ous wd aus wd sep wd sep we	710 1631 182 232 52 93 114 111 152 263	283.6 307.6 118.4 72.9 32.7 26.0 57.2 39.4 79.9	808 1858 187 240 61 96 147 143 251 451	323.1 350.5 122.3 75.3 38.1 30.3 73.4 50.6 132.0 32.6	509 4249 1331 615 326 400 497 230 263 741	1.39 0.38 0.14 0.16 0.16 0.21 0.23 0.48 0.58
total	Been made made their been and a series of the series of th		4242	526.0	9150	

1977 SKOWNAN sauser

1977 SKOW	INAM sause	F"		
stratum	#fish	std error	a-h	no./a-h
may wd may we jun wd jun we jul wd jul we aus wd aus we sep wd	0 17 11 0 3 0 0	0.0 9.5 2.1 0.0 2.2 0.0 0.0	509 4249 1331 615 326 400 497 230 263 741	0.00 0.01 0.01 0.02 0.00 0.00 0.00
total	39	10.0	9160	0.00
1977 SKOW		std error	a-h	na zalk
25 G 1 U. G U414	77 1 £ 12-11		W I I	FULL SOLUTION OF THE SECOND
may wd may we jun wd jun we jul wd jul we aus wd aus we sep we	94 634 403 28 102 5 6 0	54.7 186.4 219.0 14.0 15.1 46.3 15.7 4.9 0.0 5.0	509 4249 1331 615 326 400 497 230 263 741	0.18 0.15 0.30 0.07 0.09 0.25 0.12 0.03 0.00
total	1384	297.6	9160	0.15
1977 SKOW stratum	NAN perch #fish	std error	a-h	no.∕a-t
may wd may we jun wd jun we jul wd jul we aug wd aug we sep wd	. 11 6 0 8 6 0 0 0	0.0 3.0 5.0 0.0 6.9 4.4 0.0 0.0	509 4249 1331 615 326 400 497 230 263 741	0.00 0.00 0.00 0.00 0.02 0.01 0.00

30

10.Ö

0.00

9160

Appendix 3. Individual Access Points Production Estimates, 1978

1978 LEPERRE'S walleye

stratum	#fish	std error	wt(1b)	approx. s.e.	ah	no./a-h
Merc while which have when some should	labele Made Santo Santo 1994)	Marin their ryald Miller visus areas agent blocks	define course servey couple before paper	more perch speed more state could drive meet more more more	Address Section Sections	police agence proprie televis police proprie proprie
may wd	580	98.2	Ø	0.0	424	1.37
May We	2276	119.4	Ø	0.0	2451	0.93
jun wd	1360	413.6	Ø	0.0	2594	0.52
jun we	538	212.1	8	0.0	1493	0.36
jul wd	260	175.3	Ø	0.0	890	0.29
jul we	1441	1034.8	Ð	0.0	2857	0.50
aus wd	1005	702.7	Ð	0.0	1111	0.90
aua we	639	145.9	Ð	0.0	1139	0.56
sep wd	973	340.4	Ø	0.0	1737	0.56
sep we	393	189.2	9	0.0	1835	0.21
oct wd	641	389.5	Ø	0.0	840	0.76
oct we	250	133,4	Ü	0.0	270	0.93
PETER MAIN MAYON TAKAN BETER WHATE SELECT	**************************************	Delta deput conti	WHEN MADE STORE MADE ASSES	MALE SPICE A LIE STITE STATE STATE STATE STATE		THE PARTY SAME WHILE MADE AND MADE
total	10356	1475.7	0 .	0.0	17640	0.59

1978 LEPERRE'S sauger

stratum	#fish	std error	13. mm	no./a-h
may wd	3	2.2	424	0.01
May We	1	0.4	2451	0.00
jun wd	4	3.9	2594	0.00
jun we	8	3.3	1493	0.01
jul wd	7	6.1	890	0.01
jul we	:	5.0	2857	0.00
aue wd	Ø	0.0	1111	0.00
aus we	Ø	0.0	1139	0.00
sep wd	ė	0.0	1737	0.00
sep We	0	0.0	1835	0.00
oct wd	ä	0.0	840	0.00
oct we	Ø	0.0	270	0.00
Seen seen stay jump their stay store		Money county winey delight bloom topped bloom seath	MMTS] cONFO addres	prior gong coup galgy them wass sond
total	28	9.7	17640	0.00

1978 LEFERRE'S pike

stratum	#fish	std error	a-h	no./a-h
and the same and the same and the same	\$700 MPH 1500 MMH 1884	Manus parmy (same wheth blanc manus quage bloom	10000 reason	Medical Tricins coding assert Mirrie (Minor cross)
may wd	6	4,4	424	0.01
May We	86	14.7	2451	0.04
jun wd	141	47.2	2594	ā.a5
jun we	114	42.0	1493	0.08
jul wd	20	10.6	890	0.02
jul we	165	69.6	2857	0.06
೦೧೩ ಗಳ	15	6.8	1111	9.9I
0.U9 WE	42	23.4	1139	0.04
sep Wd	* 7	6.1	1737	0.00
sep we	17	10.1	1835	0.01
oct wd	11.	10.0	849	0.01
oct we	10	8.4	279	0.04
	Mindy (with miney taking page)	makin gamin benyi pindo masa nanjal mosa napa	wifer come come	other state was page thing gaps goog
total	632	100.5	17640	0.04

1978 LEPERRE'S perch

stratum	#fish	std error	Comment of Comments	no./o-h
may wd	. 8	2.2	d Ti d	eria entre
MOY WE	20		424	0.02
		2.0	2451	0.0i
jun wd	9	4.7	2594	0.00
jun we	12	5.4	1493	0.01
jul wd	13	12.3	890	ē.ēi
jul we	55	29.8	2857	0.02
aua wd	81	37.9	1111	0.07
aua we	15	4.9	1139	0.01
sep wd	Ø	0.0	1737	0.00
SEP WE	10	9.4	1835	ø.ôi
oct wd	0	0.0	840	0.00
oct we	9	0.0	270	0.00
Section could nation parties section during below-	dents model waste take worth	model maps arene prove many copie bangs because	PREF SHIPS MINGS	ment were upon upon defer areas again
total	223	51.3	12640	5 61

1	97	2.0	NSN	1 660	1	1	po vy	p.

stratum	#fish	std error	wt(lb)	opprox ₄ Sata	alife days when	no.Zo-h
may wd	253	91.1	Ø	0.0	266	0.95
May We	658	248.0	ē	0.0	715	0.92
jun wd	501	218.8	ē	0.0	1942	0.26
jun we	368	150.7	ē	0.0	1481	0.25
jul wd	20	19.0	è	0.0	230	0.09
jul we	254	161.8	ē	0.0	1021	0.26
aus wd	252	176.4	ē	. 0.0	1580	0.16
+ sep wd	Bress and Britis					
aus we	72	0.0	9	0.0	693	0.10
sep we	769	21,1	Ŷ	0.0	2407	0.32
oct We	155	62.1	Ø	0.0	675	0.23
the new wast page 1950 above 1966	State many dates when which	need phone serve hand once other pasts fame	Mare Make State Apple Walt woman	shed place wider floor coor press ready	many passe pare	A STATE COURSE SPECIAL COURSE COURSE MARRIED
total	3303	449.9	0	0.0	11010	0.36

1978 NSN sauser

stratum	#fish	std error	a-h	no.∕a-h
Miller spine asked, basing dress screen short	MARK BASIC WASH WHEN STATE	many were your while rear speed shall street	Codett alluna typedor	name officer threat delta linear delay made
may wd may we	0 0	0.0 0.0	266 715	0.00 0.00
jun wd jun we	9 9	0.0 0.0 0.0	1942 1481 230	0.88 0.88 0.88
jul wd jul we aug wd	ย ผิ ผิ	0.0 0.0 0.0	1021 1580	0.00 0.00
+ sep wd aus we sep we oct we	0 13 0	0.0 2.8 0.0	693 2407 675	0.88 0.81 0.88
+ c+ c l	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2.8	11010	0.00

1	9	7	8	NSN	pike

stratum	#fish	std error	ah	no./o-h
may wd	15	12.5	266	0.06
WOA MS	16	12.3	715	0.02
jun wd	88	36.3	1942	0.05
jun we	80	25.4	1481	0.05
jul wd	0	0.0	230	0.00
jul we	103	57.9	1021	0.10
aus wd	95	66.0	1580	0.06
+ sep wd				
aus we	99	63.5	693	0.14
sep we	43	10.1	2407	0.02
oct we	0	0.0	675	ā.08
9990 Name + 40-30	grave seem start, water taken	NAME AND ADDRESS OF THE PARTY AND ADDRESS OF THE PARTY ADDRESS OF THE PA	Freily seeding garage	THE PERSON NAME AND POST OF THE PARTY PARTY.
tota1	538	118.8	11010	0.05

1978 HSN perch

stratum	#fish	std error	ŋ h	no./a-h
	and man mail -14th	many clear trees were week clear from white	MARIN 2005) 10100	delet broke drive pappy more blan tapes
may wd	4	3.1	266	0.01
MOY WE	2	1.8	715	0.00
jun wd	Ø	0.0	1942	0.90
jun we	Ø	0.0	1481	0.00
jul wd	Ø	Ø.Ø	230	0.00
jul we	9	0.0	1021	0.00
oue wd	21	11.5	1588	0.01
+ sep wd				N
aua we	0	0.0	693	0.00
ser we	7	2.8	2407	0.00
oct we	Ø	ë, ë	675	0.00
fided. What where among mobile attack pages	Maria escol form people rapp	amount langua galanga tabaha ambana pangang banasa	DAM AND VINC	serial mass spirit pasts steep party spars
total	34	12.4	11010	គ គគ

1978 SKOWNAN walleye

stratum	#fish	std error	ut(1b)	approx. s.e.	17,	no./a-h
may wd	50	44.8	0	0.0	176	0.28
May We	1194	158.8	Ø	0.0	1492	0.80
jun Wd	198	119.8	Ø	0.0	352	0.56
jun we	206	40.4	Ø	0.0	701	0.29
jul wd	20	18.4	0	0.0	200	0.10
jul we	17	14.9	9	ម.ម	66	0.25
aus wd	37	34.1	Ø	Ø.Ø	73	0.50
aus we	ē	១. ១	Ø	0.0	41	0.00
sep wd	45 0	426.9	Ø	0.0	920	0.49
sep we	1	observation(s)				
oct wd	32	30.0	Ø	0.0	347	0.09
oct we	0	0.0	e	0.0	7	0.00
March School Street Street Street, Street, Street,	MANY WOOL SHAPE SAFEE WAS	white makes have a speed paper develor about versely	-	Mand James States aren't worke Marie Sange		where spiret bridge strong states and to describ
total	2204	477.6	0	0.0	4374	0.50

1978 SKOWMAN walleye

strotum	#fish	std error	ut(1b)	opprox. S.e.	ah	no./a-h
may Wd	50	44.8	ව	0.0	176	0.28
may we	1194	158.8	Ø	0.0	1492	0.80
jun Wd	198	119.8	Ø	9.0	352	0.56
jun we	206	40.4	Û	0.0	701	0.29
jul wd	20	18.4	e g	0.0	200	0.10
jul we	17	14.9	Ø	0.0	66	0.25
aua Mq	37	34.1	Ö	0.0	73	0.50
.due we	63	58.1	Ō	0.0	222	0.29
+ sep we						
sep Wd	450	426.9	9	0.0	920	0.49
oct Wd	32	30.0	Ø	0.0	347	0.09
oct We	ē	0.9	Ø	0.0	7	0.00
	pagag 650PF JADOS PSSP4 PRP24	deniar marks conter parties brink denote digital 1999s	phone before oppose afficial relative recom-	Market Specific Septide Market Addition and Associate Addition and Associate Addition of the Ass		server survey strange belong period control bustine
total	2266	481.1	Ø	0.0	4555	0.50

1978 SKOWMAN souser

stratum	#fish	std error	ü H	no./a-h
Home page upon party which never print	umbi 1660 etaki Minir tetik	grad mean about Model mines took flags there	PORT CAN'T HARE	MARK oppos good wheely broke serve dries
may wd	0	9.9	176	0.00
may we	Ø	0.0	1492	0.00
jun wd	Ø	0.0	352	0.00
jun we	0	0.0	70i	0.00
jul wd	0	0.0	200	0.00
jul we	0	0.0	66	0.00
aus wd	0	0.0	· 73	0.00
aus we	Ø	0.0	222	0.00
+ sep we				
sep Wd	Ø	0.0	920	0.00
oct wd	9 9	0.0	347	0.00
oct we	Ø	0.0	7	0.00
•				
Street states regard appear cobist depart names		abote vicini anno	formet bevoor vague	ment have note more filled proce filter.
total	0	0.0	4555	0.00

1978 SKOWNAN pike

stratum	#fish	std error	a-h	no./a-h
about ming made more most when many	agong which region must page	most state drapt . Mead their regard debut theme	THE MAKE WERE	hand draw many make about about
may wd	Ø	0.0	176	0.00
may we	86	37.0	1492	0.06
jun wd	7	6.8	352	0.02
jun we	40	7.7	701	0.06
jul wd	Ø	0.0	200	0.00
jul we	Ø	0.0	56	0.00
aug wd	Ø	0.0	73	0.00
ona me	É	5.8	222	0.03
+ sep we				
sep wd	Ø	0.0	920	0.00
oct wd	53	49.9	347	0.15
oct we	9	0.0	7	0.00
diden sampe gassi ample dendi erase state	2000 Mais Amer were 1864.	debte packs balance 1966s Addres topics bydag (AMI)	METALF INNERS	trade ander water adapt with these trans
total	192	63.2	4555	0.04

1978 SKOWMAN perch

stratum	#fish	std error	0h	no./a-h
hells sheet a-th costs amon prior reser	may retry base person			
may wd	ø	0.0	176	0.60
MOLY WE	2	1.1	1492	0.00
jun wd	Ø	0.0	352	0.00
jun we	ā	0.0	791	0.00
jul wd	ē	0.0	200	0.00
jul we	ā	ë.ë	66	0.00
ana mq	ē	ā. ē	73	0.00
aus we	ĕ	0.0	22Ž	0.00
+ sep we	***			
sep wd	20	19.0	920	0.02
oct wd	ā	a.a	347	0.00
oct we	ğ	0.0		0.00
death above twose datas black years study	Mind- come budge comes compa	MANY STATE AND STATE OFFICE MANY TWO THAT	HARE WILL DAME.	were troop same qualit sales for a visite
to-al	22	19.0	4555	0.00

1978 DAUPHIN RIVER walleye

stratum	#fish	std error	wt(lb)	approx. s.e.	o. – h	no.∕a-h
may Wd	3295	1130.5	5941	2038.6	5599	0.59
may we	6281	787.9	11327	1420.8	12527	0.50
jun wd	4871	1542.5	6701	2121.9	8984	9.55
jun we	4224	1009.9	5811	1389.3	8019	0.53
jul wd	3670	1641,2	4151	1856.1	4670	0.79
jul we	4670	3089.4	5281	3494.0	5498	0.85
aus wd	Ø	ឋ.បី	0	0.0	903	0.00
QUE WE .	1013	356.8	1146	403.5	4845	0.21
+ sep we						
three most proof upda shill would sales.	raine there gives more made	Ment Jens Siells Meth State Medi Many Meny	appear and color place bear from	there demand upped lamber harms about another. After whole bender \$40.00	spens tradit dend	Three delives making angled angled comme charce
total .	28024	4202.8	40357	5331.4	50966	0.55

1978 DA	UPHIN	RIVER	sauger
---------	-------	-------	--------

1978 DHUP	HIM KIAFK	sauser		
stratum	#fish	std error	a - h	no./a-h
may wd may we jun wd jun we jul wd jul we aus wd aus we + sep we	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	0.0 0.0 0.0 0.0 0.0 0.0	5599 12527 8904 8019 4670 5498 903 4845	8.88 8.88 8.88 8.88 8.88 8.88
total	Ø	0.0	50 966	0.00
1978 DAUP	HIN RIVER	pike		
stratum	#fish	std error	0 †7	no./a-h
may wd may we jun wd jun we jul wd jul we aug wd aug we + sep we	696 1631 664 306 30 72 21 165	272.3 143.5 271.2 101.3 9.5 44.8 20.5 85.6	5599 12527 8904 8019 4670 5498 903 4845	0.12 0.13 0.07 0.04 0.01 0.01 0.02 0.03
total	3584	434.0	50966	0.07
1978 DAUF				
stratum	#fish	std error	a-h	no./a-h
may wd may we jun wd jun we jul wd jul we aug wd aug we + sep we	. 0 5 13 22 0 6 0 44	0.0 1.8 11.6 5.8 0.0 5.0 0.0 11.6	5599 12527 8904 8019 4670 5498 903 4845	0.00 0.00 0.00 0.00 0.00 0.00
total	90	18.2	50966	0.00

1978 FAIRFORD walleys

stratum	#fish	std error	wt(lb)	approx. s.e.	a-h	no.∕a-h
may wd	1595	340.1	2539	541.4	3326	Ø.48
jun wd jun we	1610 1221 750	152.2 273.9 81.0	2563 1943 1194	242.3 436.0 128.9	3060 4937 7293	0.53 0.25 0.10
bw lui + aus + bw ass +	1535	508.5	2442	809.3	9299	0.17
ona me inj me	336 36 5	44.8 11.9	534 580	71.3 19.0	3670 4771	0.09 0.08
total	. 7411	693.6	11795	1104.0	36356	0.20

1978 FAIRFORD sause.

stratum	#fish	std error	(I)	no./a-h
may wd	11	6.2	3326	0.00
May We	20	2.9	3060	0.01
jun wd	242	76.4	4937	0.05
jun we	158	54.1	7293	0.02
jul wd	31	17.3	9299	0.00
t aus wd				
+ sep wd				
jul we	66	49.7	3670	0.02
aus we	14	4.0	4771	0.00
ettern senso tense pacer tenter prose pours.	have been dide done spage	stand come which which some some stays mays	phone relati bases	dates mades before beinds makes advise advise
total	541	107.8	36356	0.01

4	i''', "'''	erre.	P***	ď.	T	r*,	! ~~	,***	F": "E":	:	١.	
1.	24 8	(3)	1	17	1	13	-	U	RD.	D 1	. К	300

stratum	#fish	atd error	Q	no./a-h
may wd may we jun wd jun we jul wd + aus wd	1216 1533 752 962 496	117.2 111.4 137.2 135.0 112.2	3326 3868 4937 7293 9299	0.37 0.50 0.15 0.13 0.05
t sep wd Jul we aua we	198 90	109.4 39.7	3670 4771	0.05 0.02
total	5246	298.9	36356	0.14

1978 FAIRFORD perch

st atum	#fish	std error	11	no:/a-h
may wd	25	19.7	3326	0.01
may wa	11		2040	គ គគ
jun wd	7	4.0	4937	0.00
jun we	ġ	e.ē	7293	0.00
jul wd	31	17.3	9299	0.00
+ aus wd				
⇒ sep wd				
jul we	Ø	0.0	3670	0.00
aus we	9	0.0	4771	0.00
Meet denic makes migra extent makes compa	deligne totale savings saving security	APPART - POOR SANISE CELLS COUNTY SALES COURSE SERVICE	41090 12092 10000	A see moder varies values taken some virus
total	74	26 7	96956	គ គគ

1978 BIG ROCK walleye

stratum '	#fish	std error	ut (16)	opprox. S.e.	J 17	no./a-h
+ aua me + max me + max me	1890	1159.3	3008 .	1845.2	4620	0.41
total	1890	1159.3			4620	Ø. 41

1978 BIG	ROCK saus	≅∙ F		
stratum	#fish	std error	a-h	no./a-h
may wd + may we + jun we + aus we	Ð	Ø. Ø	4620	0.00
totål	0	0.0	4620	0.88
1978 BIG	ROCK pike			
stratum	#fish	std error	0	no./a-h
may wd + may we + jun we + aus we	380	132.3	4620	0.08
total	380	132.3	4620	0.08
1978 BIG	ROCK perch	Î		
stratum	##15/1	std error	(1)	no./a-h
may wd + may we + jun we + aug we	Ø	0.0	4620	0.99

0.0

4620

0.00

total

no./a-h

0.41

0.41

19	78	RI	17	ROCK	ua l	1	eye

stratum	#fish	std error	Wt. (15)	opprox. s.e.	a-h				
may wd + may we	2405	1492.9	3829	2376.3	5880				
t jun we t aus we	**								
total	2465	1492.9	3829	2376.3	5880				
	1978 BIG	ROCK sause)	,e						
	stratum	#fish	std error	a-h	no./o-h				
	bw yam we + may we + aus we	* 8	0.0	5880	0.00				
	total	<u>.</u>	0.0	5 880	0.00				
	1978 BIG ROCK pike								
	stratum	#fish	std error	[]	no./a-h				
•	may wd + may we + jun we + aus we	484	170.3	5830	ଥ.ପଃ				
	total	484	170.3	5880	0.08				
	1978 BIG F	20CK perch							
	stratum	#fish	std error	7	no./o-h				
	may wd + may we + jun we + aus we	0	0.0	5880	0.00				
To the Administration	total	E)	A. O	5080	0.00				

4	97	171	L.I.	SN		1	٦		
1.	21	o-	- 14	OH.	₩Q.	1	4.	F: 0	·

stratum	#fish	std error	wt(lb)	approx. s.e.	a-h	no.∕a-h
MATTER STORY STORY STORY MATTER STORY	WHILE CHEST INDEX MINUT JURIS	dense verte ougs . Howe blook there above Above Abbie	meanly upon their ready freds payer	Total while parts their easts and seign with their parts and repair	per al merca pagna	party opini think proof while bless while
may wd		91.1	Ø	0.0	266	0.95
May We	658	248.0	ē	ō.ŏ	715	0. 92
jun wd	501	218.8	g	0.0	1942	0.26
jun we	368	150.7	ě	ē.ē	1481	0.25
jul wd	20	19.0	ē	ē.ē	230	ā. <u>ā</u> 9
jul we	264	161.8	Ö	ē.ē	1021	0.26
aua wd	37	24.6	ē	0.0	675	0.05
aug we	72	0.0	Ø	0.0	693	0.10
sep wd	390	379.9	Ø	0.0	1363	0.29
⅓ + oct wd				-		
sep we	760	21.1	Ø	0.0	2407	0.32
oct we	155	62.1	Ø	9.0	580	0.27
Marke More search adding province spage Labour	spirit their about mode supply	steed many states where there there there there	MADE while takes been para-	NEWS STATE ADMIT SHAME SHAME SHAME SHAME SHAME SHAME SHAME	MANA PROFIT TRICKS	the same when sent who were well
total	3477	562.3	Ø	0.0	11372	0.31

1978 NSM sauger

stratum	#fish	std error	ah	no./a-h
	Marie artist marie marie marie	Miles where states . Miles service service service.	*****	effer white weeks stopped before second storms
may wd	9	0.0	266	0.00
May We	õ	0.0	715	0.00 0.00
	. Ø	0.0	1942	0.00
jun we	Ø	0.0	1 481	0.00
jul wd	Ø	0.0	230	0.00
jul we	Ø	0.0	1021	0.00
aua wd	9	0.0	675	0.00
aug we	Ø	0.0	693	0.00
sep wd	0	0.0	1363	0.00
+ oct wd '				
sep We	13	2.8	2407	0.01
oct we	9	0.0	580	0.00
			•	
What here were appropriate pour many	HORSE MICH MINE WAS ABOUT	based open about	SEASE OFFICE SPINE	print within them could print their spins
total	13	2.8	11372	0.00

4	970	ысы	perch	٠,
1	7 (0	14.514		1

stratum	#fish	Std error	Comment of the	noxzach
may wd may we jun wd jun we jul wd jul we aua wd aua we	4 2 9 9 9 15	3.1 1.8 0.0 0.0 0.0 0.0 0.0	266 715 1942 1481 230 1021 675 693	0.01 0.00 0.00 0.00 0.00 0.00
sep wd + oct wd	9	0.0 2.8	1363 2407	0.88 0.88
sep We oct We	์ ยี	0.0	580	9.00
total	27	8.2	11372	0,00

1978 NSN pike

stratum	#fish	std error	<u>a-h</u>	no./a-h
max wd may we jun wd jul wd jul we aus wd	15 16 88 80 0 103 51	12.5 12.3 36.3 25.4 0.0 57.9 47.7	266 715 1942 1481 230 1021	0.96 0.92 0.95 0.95 0.90 0.10
aus we sep wd + oct wd sep we oct we	99 62 43 Ø	63.5 20.0 10.1 0.0	693 1363 2407 580	0.14 0.05 0.02 0.00
cct we	 557	111.5	11372	9,95

1978 SKOWNAN walleys

stratum	#fish	std error	ut(1b)	approx. s.e.	a-h	no. Zoth
may wd may we jun wd jun we jul wd jul we aus wd aus we sep wd sep we + oct we	50 1194 198 206 20 17 37 0 450 50	44.8 158.8 119.8 40.4 18.4 14.9 34.1 0.0 426.9 44.7	2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	ତ. ମ ପ. ପ ପ. ପ ତ. ପ ତ. ପ ତ. ପ ତ. ପ ତ. ପ	176 1492 352 701 200 66 73 41 920 140	0.28 0.88 0.56 0.29 0.15 0.50 0.45 0.46
total	Access Company Property Company	479.6	<u></u> <u></u>	0.0	4560	0.45

1978 SKOWNAN sauser

stratum	#fish	std error	ah	no./a-h
may wd	Ø	0.0	176	0.00
May We	Ø	0.0	1492	0.00
jun Wd	0	0.0	352	0.00
jun we	Ø	0.0	701	0.00
jul wd	Ø	0.0	200	0.00
jul we	Ø	0.0	66	0.00
aus wd	Ø	0.0	73	0.00
ana me	Ø	0.0	41	0.00
sep wd	ē	0.0	920	0.00
sep we	Õ	0.0	140	0.00
+ oct we oct wd	8	0.0	399	0.00
Marie party from good war and about	ggopt within token 1004K MRSS	Market market, Andress orderst and the company of t	Manager address (Manager	name again from large MARE trans orders
+ - + - 1	ធ	Й. Й	4560	0.00

1978 SKOWNAN pike

stratum	#fish	std error	0	no./a-h
may wd may we jun wd jul wd jul we aus wd aus wd sep we + oct we oct wd	06700005000 3700005000 500055000	0.0 37.0 6.8 7.7 0.0 0.0 4.0 0.0	176 1492 352 701 200 66 73 41 920 140	0.00 0.06 0.02 0.05 0.00 0.00 0.11 0.00 0.13
total	190	63.1	456 0	0.04

1978 SKOWMAN perch

stratum	#fish	std error	a-h	no.∕a-h
THE STORE WASH STORE STORE CHARL SHARE	arigen Militim science belows rejour	Water Johns server beauty server company among	***************************************	gane send water dagge value areas some
may wd	. 0	ପ.ପ	176	0.00
may we	Ž	1.1	1492	0.00
jun ud	ä	0.0	352	0.00
jun we	ä	0.0	701	0.00
jul wd	ā	0.0	200	0.00
jul we	ā	Ø. Ø	66	0.00
aus wd	ē	0.0	73	0.00
ana me	ā	0.0	41	0.00
sep wd	20	19.0	920	0.02
sep we	ē	9.0	149	0.00
+ oct we				
oct wd	ğ	0.0	399	0.00
ments many edges depth sorry more strike	884-0 HATTE NAME (\$747-) Delte.	MAYS added serving smalls extrin solved dampy tolica	mant propa arries	men man many many ment many reside
+ -5 + -5]	22	19 0	4560	a ga

Submitted by:	
• 	Hugh Valiant Fisheries Biologist
	Trevor Smith Fisheries Technician
Approved by:	
	S. J. Williamson Regional Manager
Date:	

•