

BIGELOW LAKE CREEL CENSUS  
DECEMBER 1984 TO MARCH 1985

by  
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## INTRODUCTION

Bigelow Lake is a small (11 hectare) lake located about 3 km south of Smithers, just off the ski hill road. It was stocked with 2,000 brook trout in 1983 and 10,000 brook trout in 1984. It was closed to angling until the month of December, 1984, at which time the sport fishery was opened. Presently, the lake is closed to angling from April 1 to November 30. Maximum daily catch limits are 5 fish per day, with a possession quota of 10 fish.

In order to help determine future stocking rates and management strategies, a creel census was conducted on Bigelow Lake starting in December, 1984 and concluding in mid-March, 1985.

## METHODS

Anglers were interviewed by Smithers fisheries staff according to a pre-determined creel census schedule. The information obtained was tabulated on a creel census form, a sample of which is appended. Generally, interview sessions lasted about one hour. In December, the opening month, there were two interview sessions for each creel census day. For the rest of the months, only one interview session was done for each creel day.

The fish were generally quite coloured, and in the earlier part of the season were sometimes gravid. They ranged in length from 15 cm to about 40 cm; with the average length around 25 to 30 cm.

#### DISCUSSION

The bulk of the fishery occurred in December. This is probably because it was the opening month, there were more statutory and school holidays. Many people were able to catch their limit easily in December, while in January and February people commented that it was more difficult to catch fish. Also, the fishery was somewhat of a novelty, and perhaps by late January or early February people began to tire of ice fishing. During our first three checks in March, we failed to find any anglers. As the ice was beginning to look questionable, the creel survey was terminated in mid-month.

Despite the colouration and condition of the fish, most people seemed happy just to be able to get out and catch fish. Some anglers appeared more fussy and indicated that they wouldn't come out again. Many people offered praise to the Branch for establishing this type of fishery close to Smithers, and hoped that we would continue stocking. Others hoped that we could establish a similar type fishery in other nearby lakes as well.

RESULTS

A total of 149 anglers (of which 64 or 43% were children) were interviewed. They killed 262 fish. Table 1 presents the actual figures obtained during the creel census, along with projected figures for total anglers, and total fish killed for the 1984-85 winter fishery. The projected figures were calculated as follows:

Example: December weekdays-

- 40 anglers were interviewed over 6 days
- interviews were conducted twice daily and were of about one hour duration
- assume each day provided 6 hours of angling time (10:00 a.m to 4:00 p.m.)
- each day sampled represents 2/6 of total daily angling time available
- there were 21 weekdays in December
- projected number of anglers for month of December is

$$\frac{21}{6} \times \frac{6}{2} \times 40 = 420$$

The projections indicate that Bigelow Lake provided a winter fishery of about 1,800 angler days and a total kill of nearly 2,900 brook trout. Each angler interviewed was deemed to represent one angler day. In fact, the average angler spent .98 hours fishing in Bigelow Lake. The average catch per angler day was 1.9 fish (killed only).

People used a variety of bait to catch fish. The most popular was corn and shrimp, followed by roe, ice flies, cheese, canned mushrooms, bacon, meat, and worms.

Table 1. Actual and projected numbers of anglers and numbers of fish killed during the Bigelow Lake Creel Census, 1984-85

A. <u>Week Days</u>						
	No. of days	No. of census days	ACTUAL		PROJECTED	
			No. of anglers	No. of fish killed	No. of anglers	No. of fish killed
Dec.	21	6	40	70	420	735
Jan.	23	3	1	2	46	92
Feb.	20	4	0	0	0	0
Mar.	21	2	0	0	0	0
Week Day Totals			41	72	466	827

  

B. <u>Week-end Days</u>						
	No. of days	No. of census days	ACTUAL		PROJECTED	
			No. of anglers	No. of fish killed	No. of anglers	No. of fish killed
Dec.	10	4	83	166	623	1245
Jan.	8	2	21	15	504	360
Feb.	8	4	4	9	192	432
Mar.	10	1	0	0	0	0
Week-end Day Totals			94	180	1151	1917

  

Total A & B			149	262	1785	2864
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Some complaints heard were: residents didn't like increased traffic to "their" lake, trespassing on their property, debris deposited on the lake (for fires), not enough enforcement- some people were killing their limit, taking it to their vehicle, then returning to the lake to catch "another" limit.

#### CONCLUSIONS

The establishment of the Bigelow Lake winter brook trout fishery appears to have been very successful. With an estimated annual catch of 2,864 fish, it would appear that an annual stocking rate of 5,000 is adequate to meet this demand. In fact, the stocking could even be reduced to the optimum theoretical rate of 4,000 at 330/kg.

The angling regulations currently in effect appear to be adequate for now.

#### RECOMMENDATIONS

1. Bigelow Lake should be maintained as a winter fishery open December 1 to March 31.
2. It should be stocked annually at a rate of 4,000 at 330/kg.
3. Catch regulations currently in effect are adequate.
4. A request should be made to C.O. Services for periodic enforcement checks, especially in early December.

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FIG. 1

CREEL CENSUS FORM

LAKE \_\_\_\_\_ DATE \_\_\_\_\_ WEATHER \_\_\_\_\_ RECORDERS \_\_\_\_\_

SURFACE WATER CONDITIONS \_\_\_\_\_ COMMENTS \_\_\_\_\_

No. of Children	No. of Adult Anglers	Time of Interview	Residence	No. of hours angled	Target species	No. & Species of Fish		Primary Tackle
						Killed	Released	
	3							