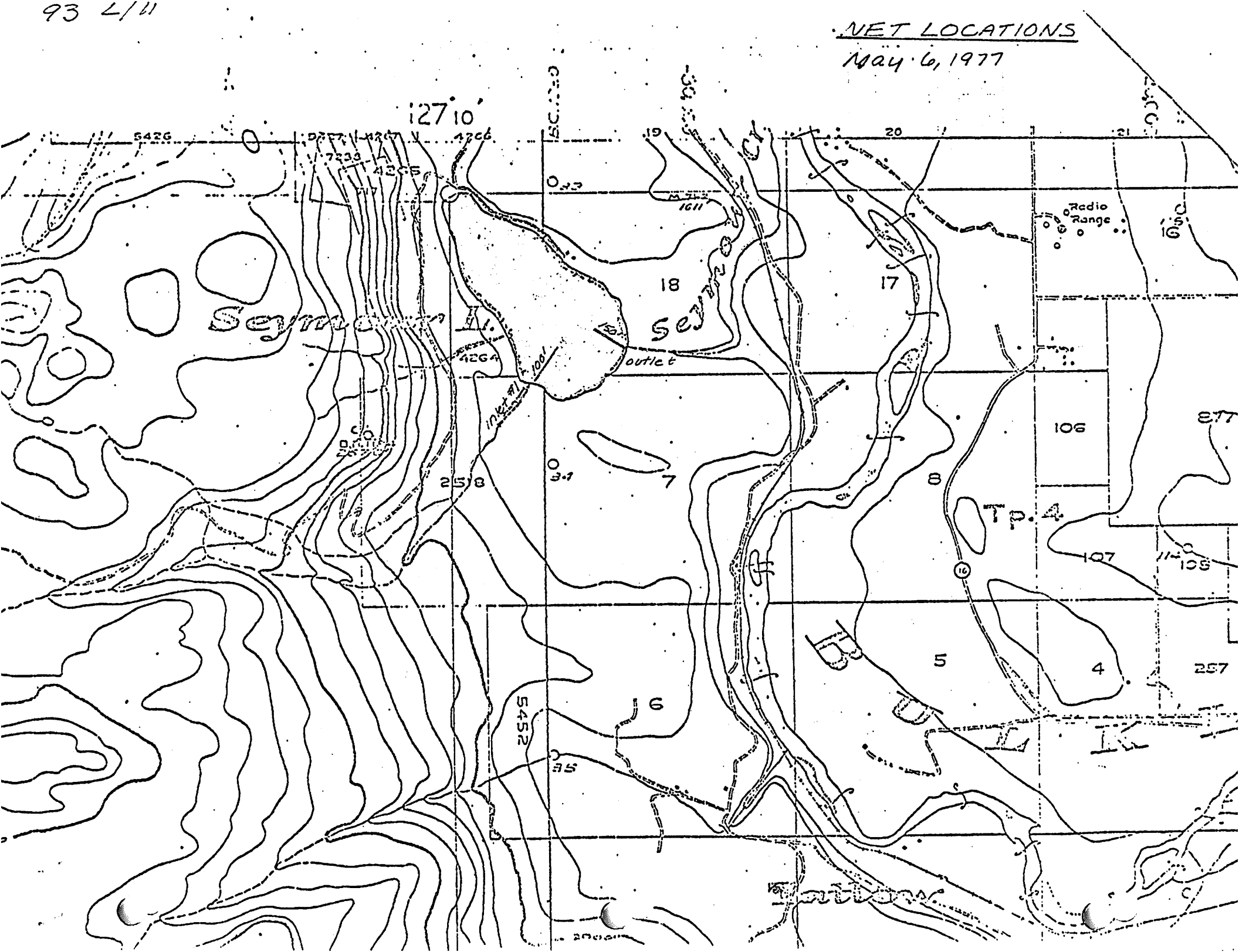
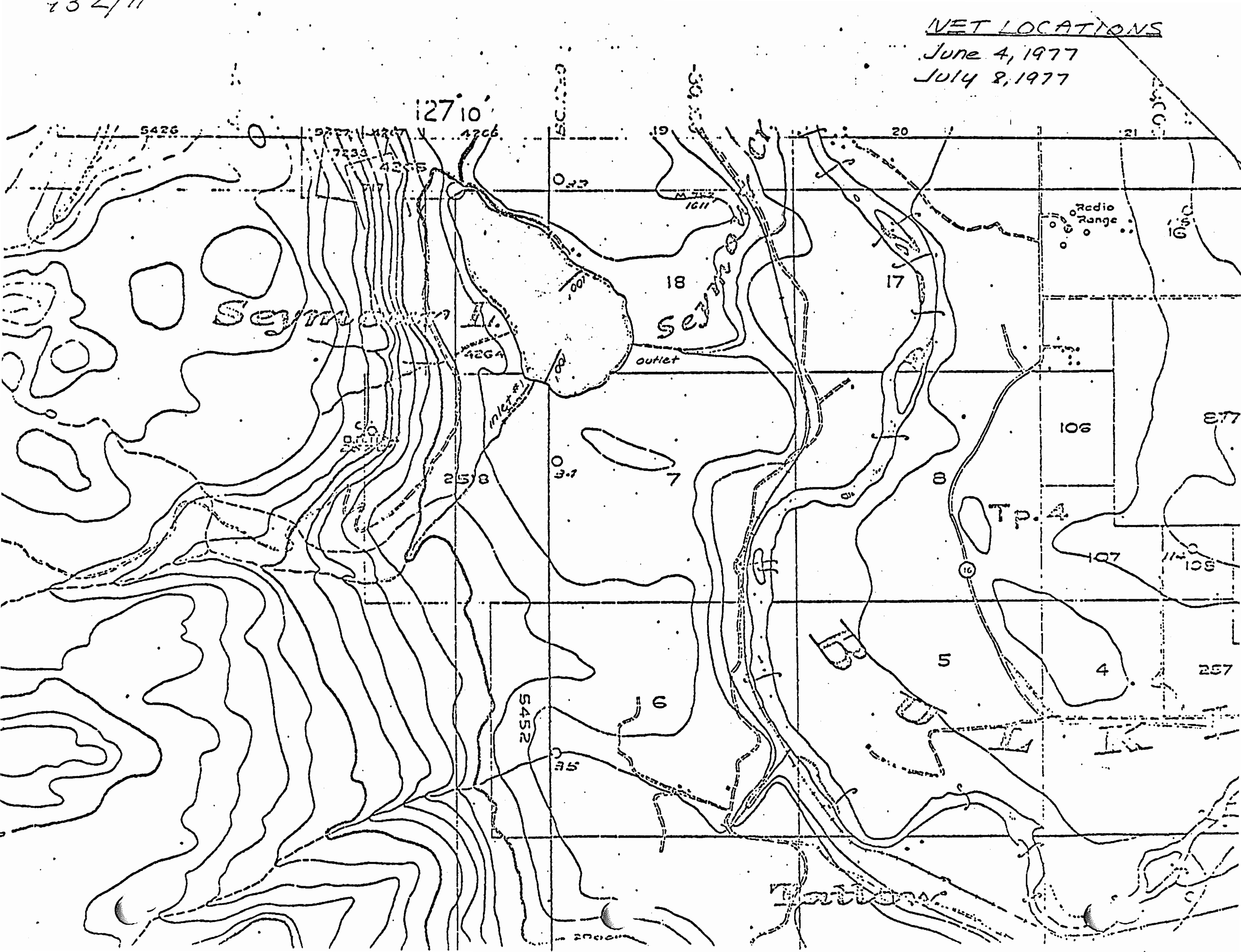
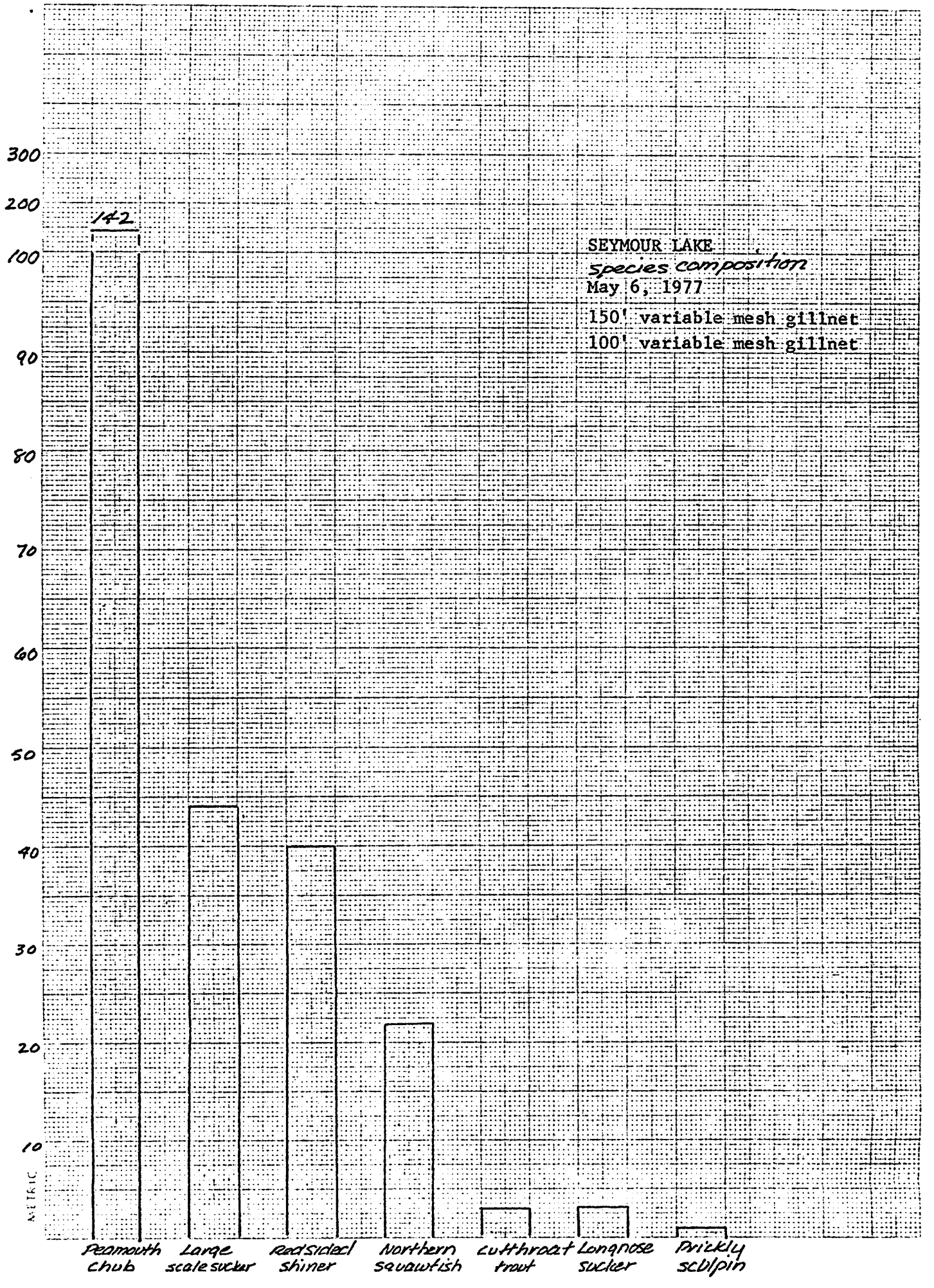
SEYMOUR LAKE

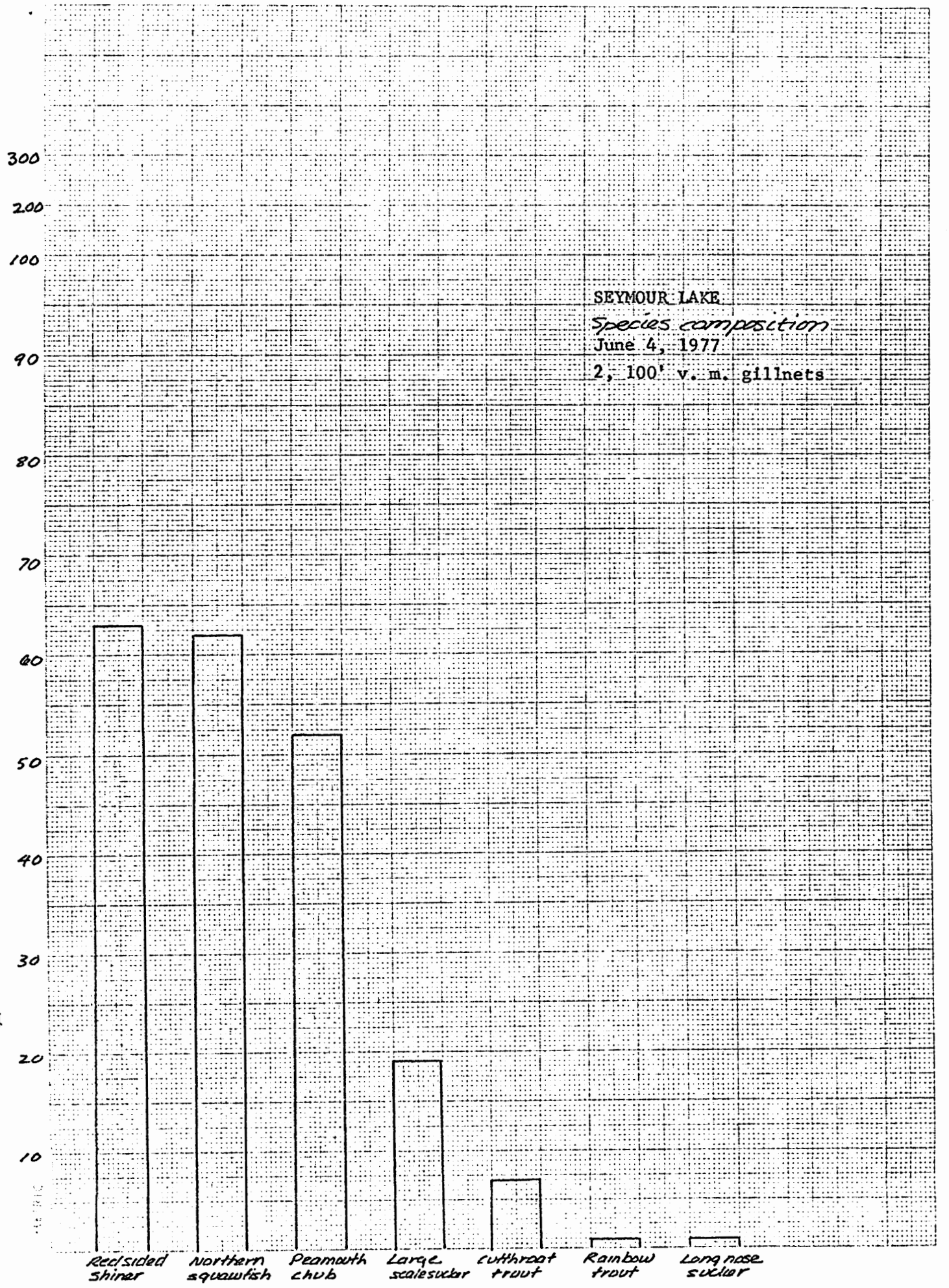
93 L/11

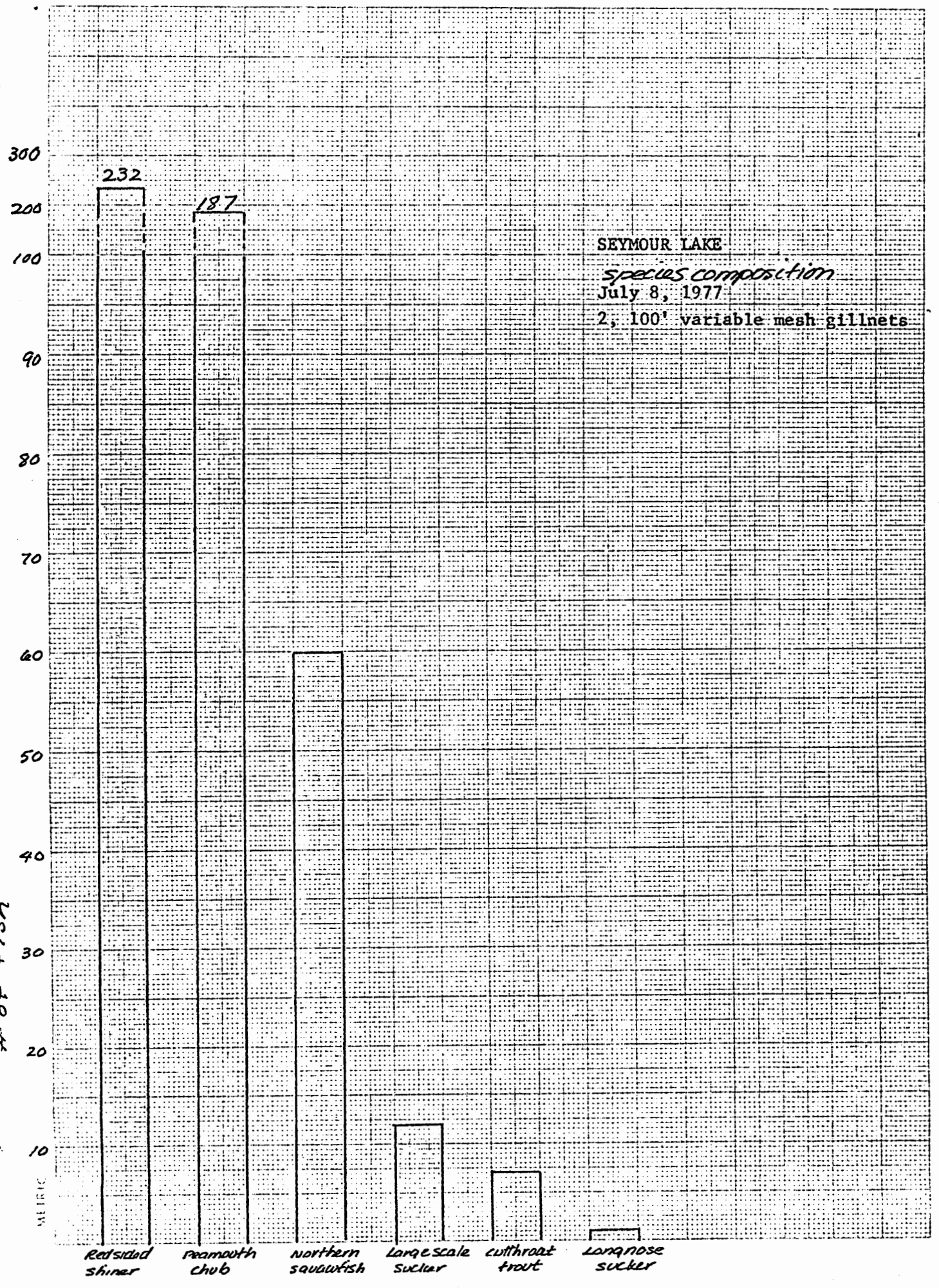
NET LOCATIONS
May 6, 1977

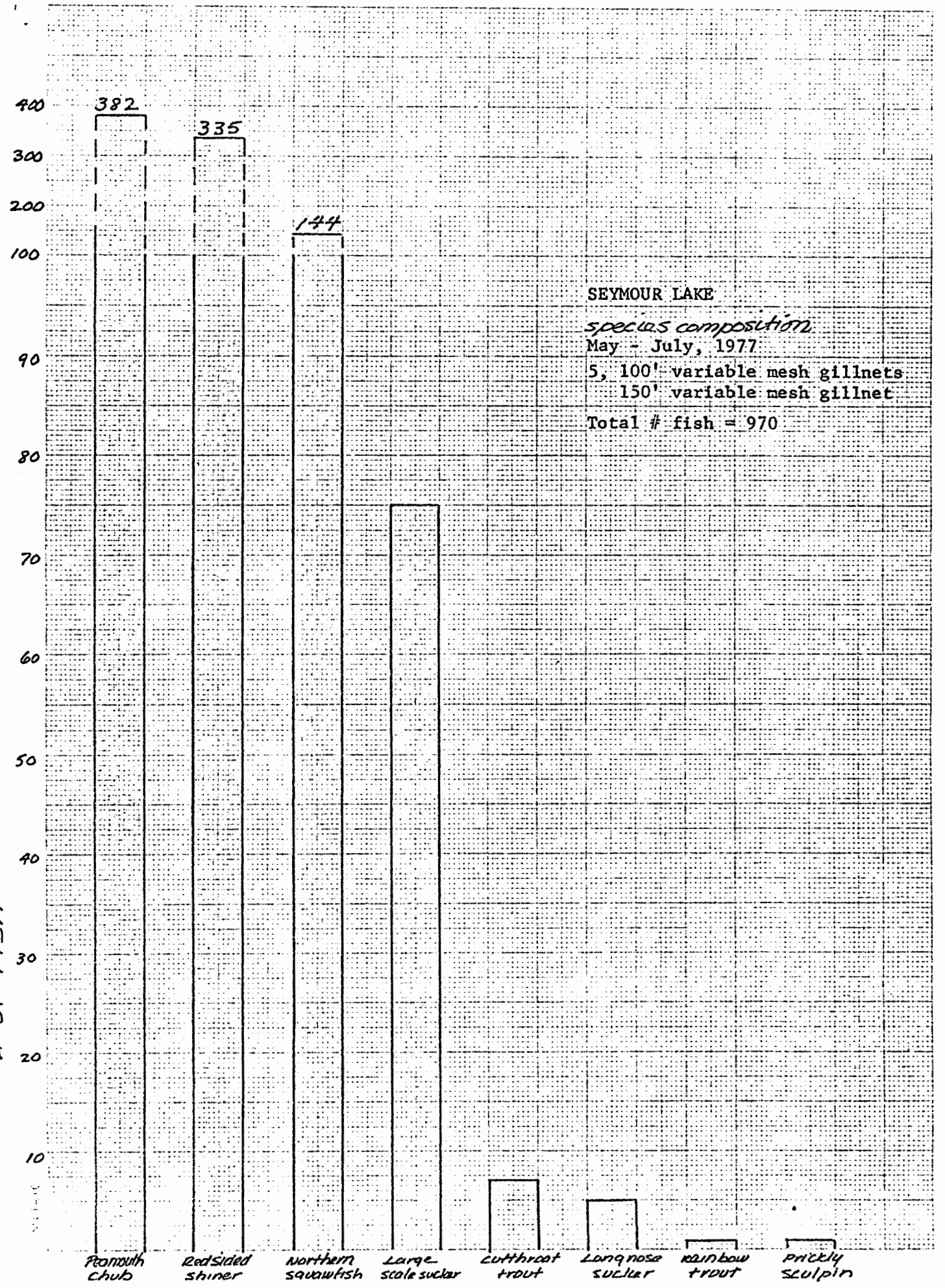



WET LOCATIONS
June 4, 1977
July 8, 1977
127°10'
Seymour L.
Seymour Cr.
inlet #1
outlet
18
17
7
8
6
5
4
Tp. 4
Radio Range
106
107
19
20
21
5452
5426
4264
4266
1611
257


SEYMOUR LAKE
species composition
May 6, 1977
150' variable mesh gillnet
100' variable mesh gillnet
142
300
200
100
90
80
70
60
50
40
30
20
10
# of fish
METRIC
Peamouth chub
Large scale sucker
Redsided shiner
Northern squawfish
cutthroat trout
Longnose sucker
Prickly sculpin


SEYMOUR LAKE
Species composition
June 4, 1977
2, 100' v. m. gillnets
300
200
100
90
80
70
60
50
40
30
20
10
# of fish
Redsided shiner
Northern squawfish
Peamouth chub
Large scalesucker
cutthroat trout
Rainbow trout
Long nose sucker


SEYMOUR LAKE
species composition
July 8, 1977
2, 100' variable mesh gillnets
300
200
100
90
80
70
60
50
40
30
20
10
# of fish
METRIC
232
187
Redsided shiner
Peamouth chub
Northern squawfish
Largescale sucker
Cutthroat trout
Longnose sucker


SEYMOUR LAKE
species composition
May - July, 1977
5, 100' variable mesh gillnets
150' variable mesh gillnet
Total # fish = 970
# of fish
400
300
200
100
90
80
70
60
50
40
30
20
10
382
335
144
Flathead chub
Redsided shiner
Northern squawfish
Large scale sucker
Cutthroat trout
Longnose sucker
Rainbow trout
Prickly sculpin

SEYMOUR LAKE

Inlet #1

Date surveyed - May 14, 1977

Area surveyed - from mouth to ~ 200 yds upstream

Flow - unable to determine

Description - the stream was riddled with beaver dams in the lower section and was flooded to 200 ft. wide or more (see photo #1). The substrate was predominately fine, organic debris.

Barriers - one of the beaver dams appeared to be a barrier (see photo #2)

Fish observed - none

Outlet

Date surveyed - May 14, June 19, 1977

Area surveyed - from the Telkwa Coal road to the outflow at Seymour Lake

Flow - May 14 - 16 c. f. s.
June 19 - 2 c. f. s.

Description - For approximately 1/2 mile upstream from the Telkwa Coal Road the creek runs through a recently cleared field. Beaver activity in this area has caused flooding in part of the field and blocked the culvert which passes under the railway tracks (see photos 3, 4, and 5). Fish movement upstream through this area would be difficult or impossible.

Above the field the stream runs through a ravine. Streamside vegetation here is thick. Where the creek could be observed it was 3 to 10 feet wide over a substrate of gravel, cobble and stone (see photos 6 & 7). The habitat is similar until the outflow is reached where extensive beaver activity has caused flooding. There are three major dams within the first 100 yds. downstream and several more below this. (see photo 8) On May 14 the stream was flooded to approximately 100 ft. in places.

Barriers - Beaver activity near the Telkwa Coal Road and near the outflow have resulted in several partial and/or complete barriers.

Fish observed - Fish were common throughout the stream. Peamouth chub in spawning condition were seen at the outflow (May 14) and coarse fish fry and juveniles were observed the length of the creek. Apparently lampreys use the stream for spawning, ascending at least as far as the Telkwa Coal Road.

Photo 1 - Inlet #1, looking towards the lake.

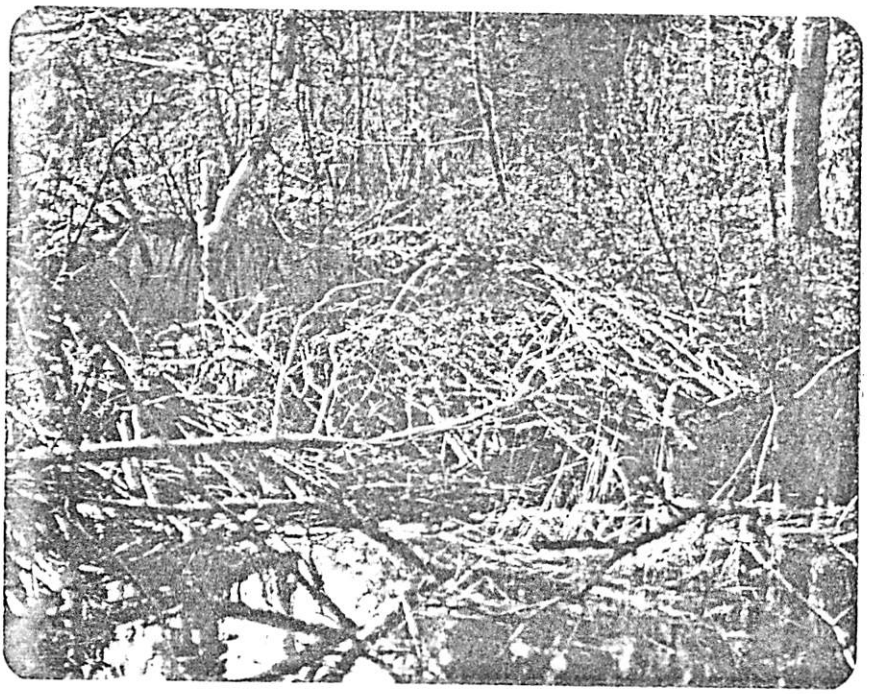


Photo 2 - The major beaver dam on the inlet.

Photo 3 - Seymour Lake outlet just above the railroad crossing.

Photo 4 - Flooded area above beaver dams.

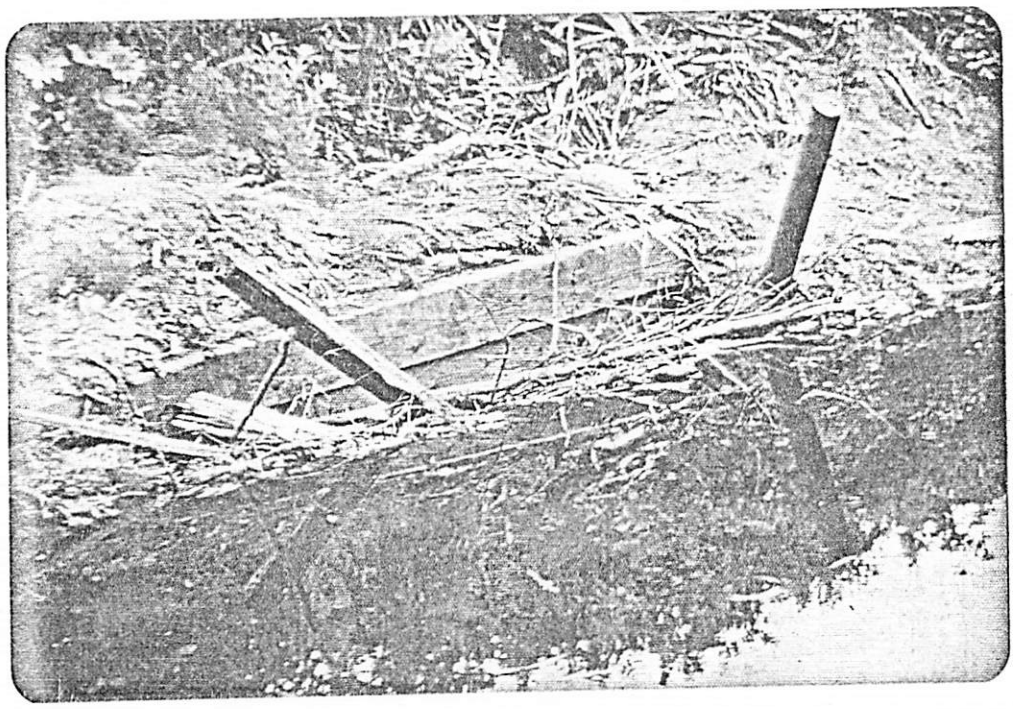


Photo 5 - Blocked culvert at railway crossing.

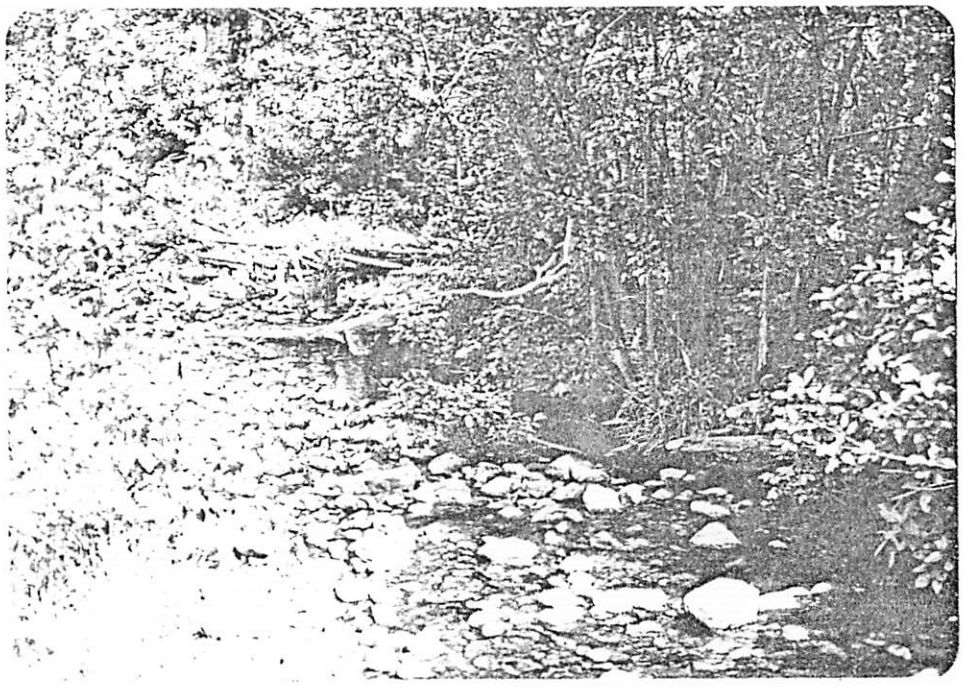


Photo 6 - The outlet in the ravine.

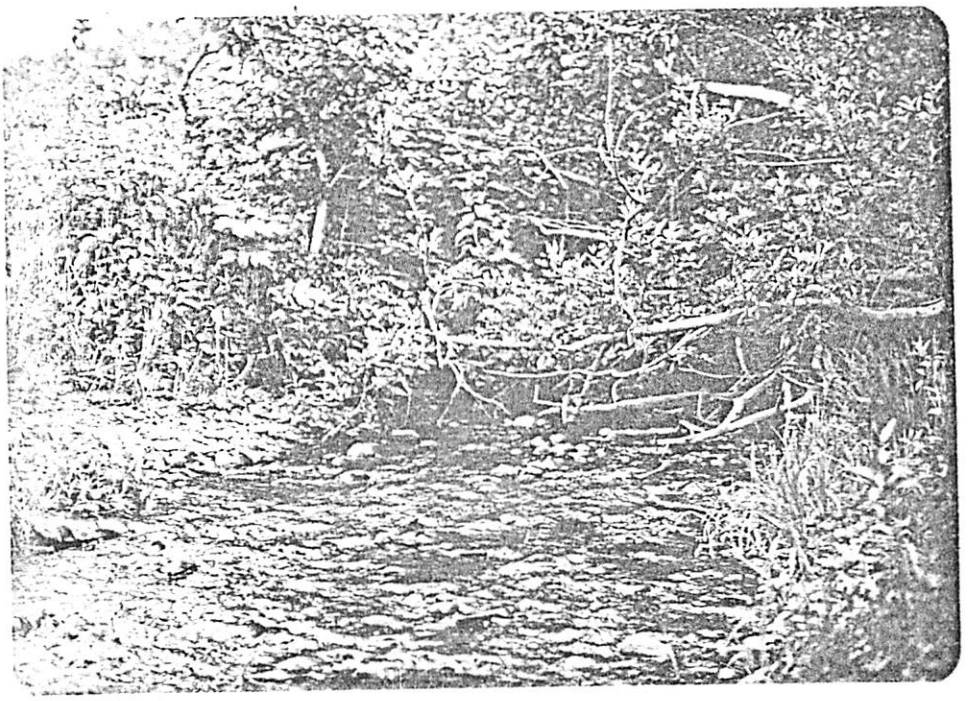


Photo 7 - The outlet above the ravine.

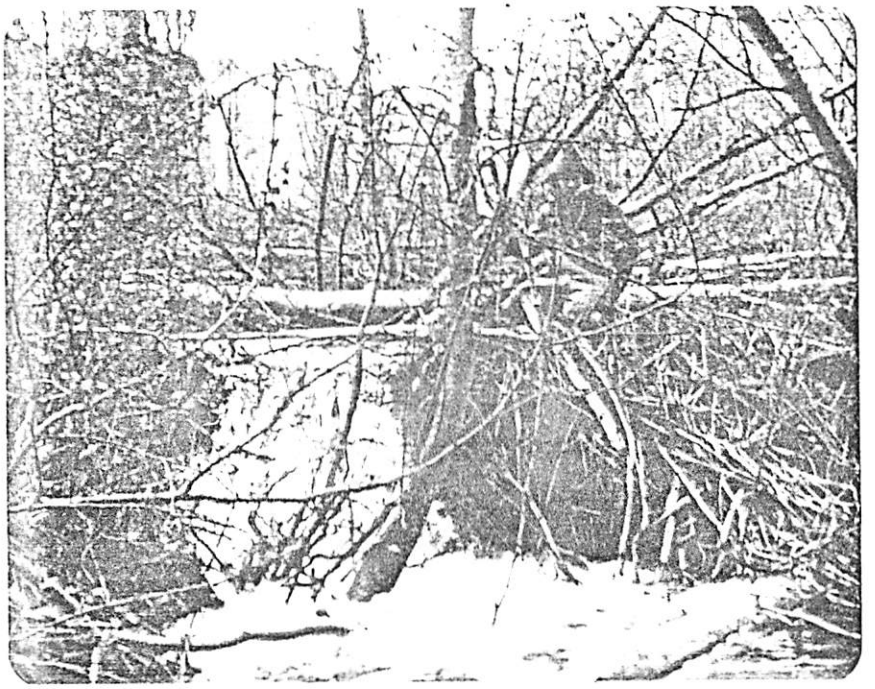


Photo 8 - One of the beaver dams near the outflow.

Recommendations

Only one rainbow trout was caught from a total of 650 ft. of gillnet, indicating that the stocking program on this lake has been a total failure. The resident cutthroat population is doing only slightly better; 17 were netted. Consequently the sports fishery on the lake is limited. During the five evenings and four mornings spent on the lake, only one angler was seen.

In contrast, the coarse fish population in the lake is tremendous. Nearly 1000 squawfish, shiners, suckers and chub were caught. It is clear that competition and/or predation by these fish is having detrimental effects on the trout population. The poor condition of the major inlet and the outlet could also be a contributing factor to the lack of substantial trout population.

We recommend a major rehabilitation project for this lake. The Smithers area really lacks a lake with decent fishing and this one is a perfect candidate due to its close proximity, easy access and relatively small size. The project should include chemical rehabilitation, improvement of the outlet and perhaps the major inlet. A barrier to coarse fish should be built on the outlet.

There are two alternatives for chemical rehabilitation. First the use of Squaline to remove just the squawfish. We feel that the squawfish are likely a major predator of juvenile trout in the lake and their removal would possibly be beneficial to the trout population. However, competion and/or predation by the other species of coarse fish may be as great, or a greater problem than the squawfish. Also, removal of the squawfish may merely lead to an increase in the population of other coarse fish and be of no ultimate benefit to the trout. Therefore we recommend that all fish species be removed and the lake restocked.

The ideal situation in this lake would be the establishment of a self-sustaining trout population. The outlet has sufficient flow during the summer to serve as a good spawning and rearing habitat, although a resident reported that the stream does dry up intermittently some summers. The beaver dams near the outflow present a major problem as they form impassable barriers to the upstream movement of fish. Removal of the dams could result in an excellent spawning and rearing stream.

An important part of the rehabilitation program would be the construction of a barrier to the upstream movement of coarse fish from the Bulkley River. Perhaps a good location for the barrier would be at the bottom of the ravine or near the Telkwa Coal Road crossing. This would provide a long section of stream as spawning and rearing habitat.

The fish to be stocked in the lake should be selected carefully. To date no stocking program in this area has been successful. Stocking with cutthroat trout is one possibility, although they tend to form stunted populations when alone in lakes (reference
Perhaps the best fish to stock would be rainbow trout from this area. These fish should be better adapted to local conditions than stock from the Kootenays.

If a rehabilitation program was carried out, we suggest the construction of a small boat launching facility and perhaps a 10 h.p. or less outboard engine restriction to keep large, noisey boats off the lake.

LOCALITY Seymour Lake · DATE summer 1977

DATE	SPECIES	LENGTH cm.	WEIGHT Gm.	SEX	COND.	AGE
May 6	cutthroat	28.9	250	?	imm	4
May 6	cutthroat	31.0	315	?	imm	4
May 6	cutthroat	24.5	160	♀	imm	3
June 4		28.5		♂	imm	
		31		♂		
		31		♂		
		28		♂		
		28		♂		
		28		♀		
		23		♂		
*	rainbow	32		♀		
July 7	cutthroat	32.5		♀	imm	
		31		♀	imm	
		24.5		(preserved)		
		31.5		(preserved)		
		24.5		♀	imm	
		31				
		31				

III. Seymour Lake (Rainbow Trout)

A. Stocking History

- pre 1968 periodic BVRG plants ca. 5,000
- 1970 15,000 700/lb.
- 1974 8,000 365/lb.
- 1976 5,000 approximately 100/lb.

B. Netting History

1968 (MRW) 4 cutts - late August
1974 (RF) 5 cutts - late June
1975 (JB) 1 cutt - mid-August

C. Recommendations

This lake was pinpointed by locals in 1961 as a good candidate for rehabilitation. Nothing ever came of their application to Fish and Wildlife Branch. Suggest we look at this one closely in 1978. Discontinue stocking.

IV. Vallee (Johnson) Lake (Rainbow Trout)

A. Stocking History

- pre 1968 BVRG 5 - 20,000 trout
- 1969 5,000 200/lb.
- 1970 20,000 700/lb.
- 1971 5,000 400/lb.
- 1972 none
- 1973 4,000 80/lb.
- 1974 none
1975 4,000 135/lb.
- 1976 none

B. Netting History

1959 (JAB) 6 cutts; 15 rainbows (6 - 11 in.) mid August
1968 (MRW) numerous cutts (some may have been rainbows)
1975 (JB) 120 cutts (some may have been rainbows)

C. Recommendations

Net once more, ascertain definitely ratio of cutts and rainbow. No other action required; maintain stocking.