DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	LARY POND	Lake Area (ha):	12.54
Town:	CANAAN	Maximum depth (m):	3.0
County:	Grafton	Mean depth (m):	1.1
River Basin:	Connecticut	Volume (m^3):	140000
Latitude:	43°42'30" N	Relative depth:	0.7
Longitude:	72°00'10" W	Shore configuration:	2.71
Elevation (ft):	1178	Areal water load (m/yr):	31.70
Shore length (m):	3400	Flushing rate (yr^{-1}):	28.30
Watershed area (ha):	915.7	P retention coeff.:	0.42
% watershed ponded:	0.0	Lake type:	natural w/dam

BIOLOGICAL:	28 December 1988	7 July 1988
DOM. PHYTOPLANKTON (% TOTAL) #1	SYNURA 90%	NET PLANKTON SPARSE
#2		
#3		SYNEDRA (75%)
PHYTOPLANKTON ABUNDANCE (cells/mL)		3210.0
CHLOROPHYLL-A (ug/L)		6.27
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 45%	KERATELLA 96%
#2	DAPHNIA 30%	
#3	NAUPLIUS LARVA 20%	
ROTIFERS/LITER	22	2894
MICROCRUSTACEA/LITER	22	131
ZOOPLANKTON ABUNDANCE (#/L)	44	3025
VASCULAR PLANT ABUNDANCE		Abundant
SECCHI DISK TRANSPARENCY (m)		2.0
BOTTOM DISSOLVED OXYGEN (mg/L)	9.5	7.2
BACTERIA (fecal col., #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): 1.4
Hypolimnion volume (m^3): None

CHEMICAL:

Lake: LARY POND
Town: CANAAN

	28 December 1988		7 July 1988		
DEPTH (m)	1.0	2.0	1.0		2.5
pH (units)	6.1	6.1	6.6		6.6
A.N.C. (Alkalinity)	6.4	6.2	4.1		3.8
NITRATE NITROGEN	0.09	0.06	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.17	0.18			
TOTAL PHOSPHORUS	0.014	0.009	0.009		0.024
CONDUCTIVITY (µ mhos/cm)	39.1	37.0	27.9		27.4
APPARENT COLOR (cpu)	22	21	31		33
MAGNESIUM			0.49		
CALCIUM			2.7		
SODIUM			1.4		
POTASSIUM			0.30		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE	8	8	6		6
TN : TP	19	27			
CALCITE SATURATION INDEX			3.6		

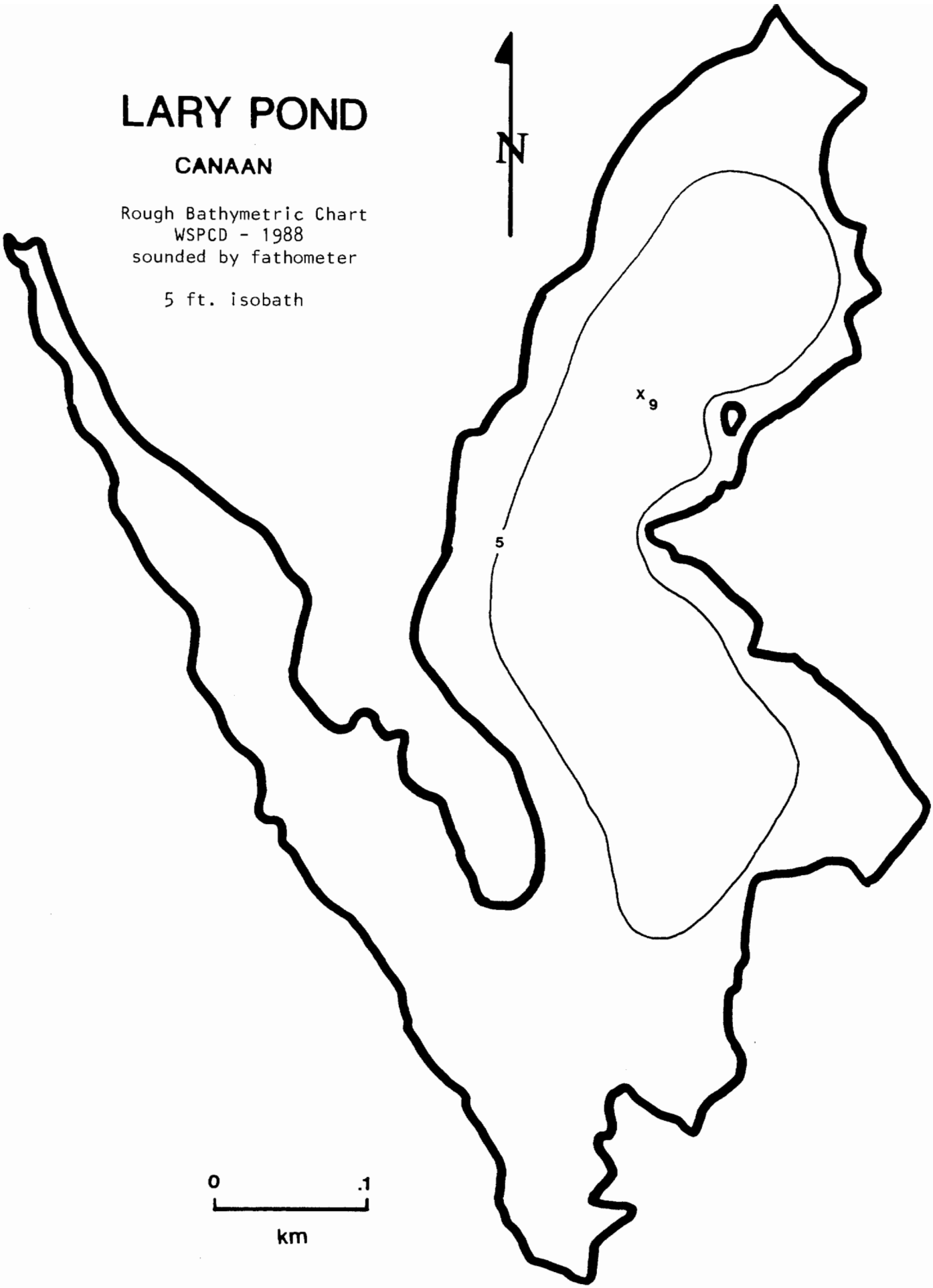
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1988

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	5	1	10	Eutro.

COMMENTS:

1. No real boat launch site; access was at the concrete dam (2 foot drop).
2. No cottages were observed around the pond.
3. Whole-water phytoplankton was abundant, with diatoms (35%) and green algae (25%) dominating. Synedra (25%), Merismopedia (15%), and Chrysochromulina (15%) were the dominant genera.


LARY POND
CANAAN
Rough Bathymetric Chart
WSPCD - 1988
sounded by fathometer
5 ft. isobath
N
9
5
0
.1
km

FIELD DATA SHEET

LAKE: LARY POND
DATE: 07/07/88

TOWN: CANAAN
WEATHER: OVERCAST. HOT. HAZY. HUMID

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	27.0	8.0	100 %
	1.0	24.8	7.8	91 %
	2.0	20.4	8.8	95 %
	2.5	19.5	7.2	77 %

SECCHI DISK (m): 2.0

BOTTOM DEPTH (m): 3.0

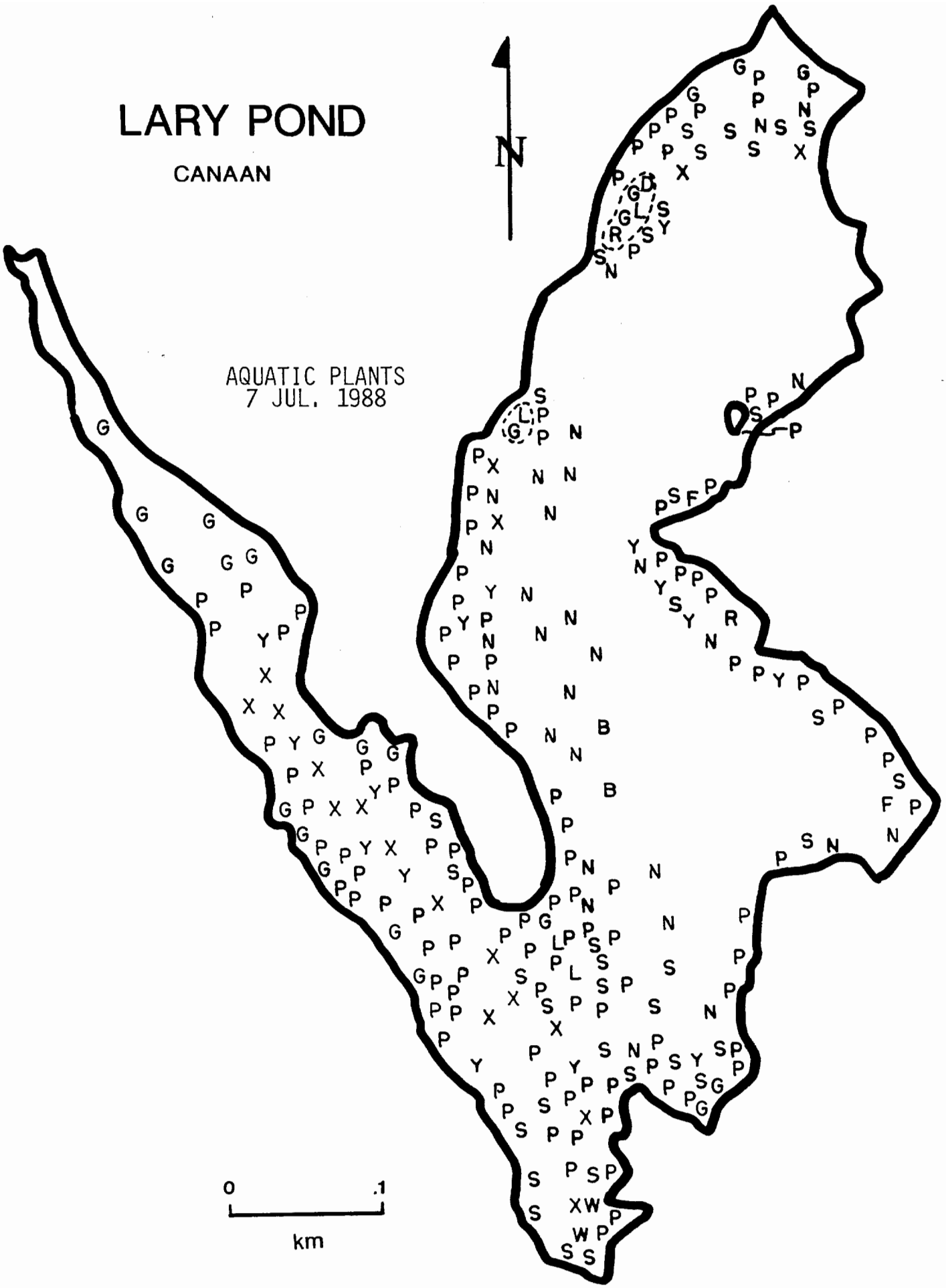
TIME: 1325

COMMENTS:

*Dissolved oxygen values are in mg/L

LARY POND

CANAAN



AQUATIC PLANT SURVEY

LAKE: LARY POND TOWN: CANAAN DATE: 07/07/88

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
P	Pontederia cordata	Pickerelweed	Very abundant
S	Sparganium	Bur reed	Very abundant
Y	Nuphar	Yellow water lily	Common
N	Nymphaea	White water lily	Common
F	Nymphoides cordatum	Floating heart	Sparse
R	Sarracenia purpurea	Pitcher-plant	Sparse
J	Juncus	Rush	Sparse
d	Dulichium arundinaceum	Three-way sedge	Sparse
X		Bottom growth	Abundant
G	Gramineae	Grass family	Common
L	Chamaedaphne calyculata	Leatherleaf	Sparse
D	Drosera	Sundew	Sparse
B	Brasenia schreberi	Water shield	Sparse
W	Potamogeton	Pondweed	Sparse

OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

1. At least 3 beaver huts were present.
2. Lots of fish were jumping.