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

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	CRANBERRY BOG POND	Lake Area (ha):	5.26
Town:	COLUMBIA	Maximum depth (m):	1.3
County:	Coos	Mean depth (m):	0.5
River Basin:	Connecticut	Volume (m^3):	27500
Latitude:	44°47'26" N	Relative depth:	0.5
Longitude:	71°25'57" W	Shore configuration:	---
Elevation (ft):	1824	Areal water load (m/yr):	34.76
Shore length (m):	600	Flushing rate (yr^{-1}):	66.50
Watershed area (ha):	248.6	P retention coeff.:	0.41
% watershed ponded:	0.0	Lake type:	natural

BIOLOGICAL:			4 August 1994
DOM. PHYTOPLANKTON (% TOTAL)	#1		SYNURA 35%
	#2		(ALL PHYTOPLANKTON
	#3		WERE SPARSE)
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			2.70
DOM. ZOOPLANKTON (% TOTAL)	#1		CODONELLA 67%
	#2		CYCLOPOID COPEPOD 33%
	#3		(ZOOPLANKTON SPARSE)
ROTIFERS/LITER			<1
MICROCRUSTACEA/LITER			31
ZOOPLANKTON ABUNDANCE (#/L)			93
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			1.2 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)			7.7
BACTERIA (E. coli, #/100 ml)	#1		2
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

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

CHEMICAL:

Lake: CRANBERRY BOG POND
Town: COLUMBIA

			4 August 1994		
DEPTH (m)			0.5		
pH (units)			6.9		
A.N.C. (Alkalinity)			19.3		
NITRATE NITROGEN			0.06		
TOTAL KJELDAHL NITROGEN			0.43		
TOTAL PHOSPHORUS			0.015		
CONDUCTIVITY (µmhos/cm)			30.2		
APPARENT COLOR (cpu)					
MAGNESIUM			0.62		
CALCIUM			3.7		
SODIUM			1.0		
POTASSIUM			0.44		
CHLORIDE			< 2		
SULFATE			2		
TN : TP			33		
CALCITE SATURATION INDEX			2.5		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1994

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	1	0	4	Oligo.

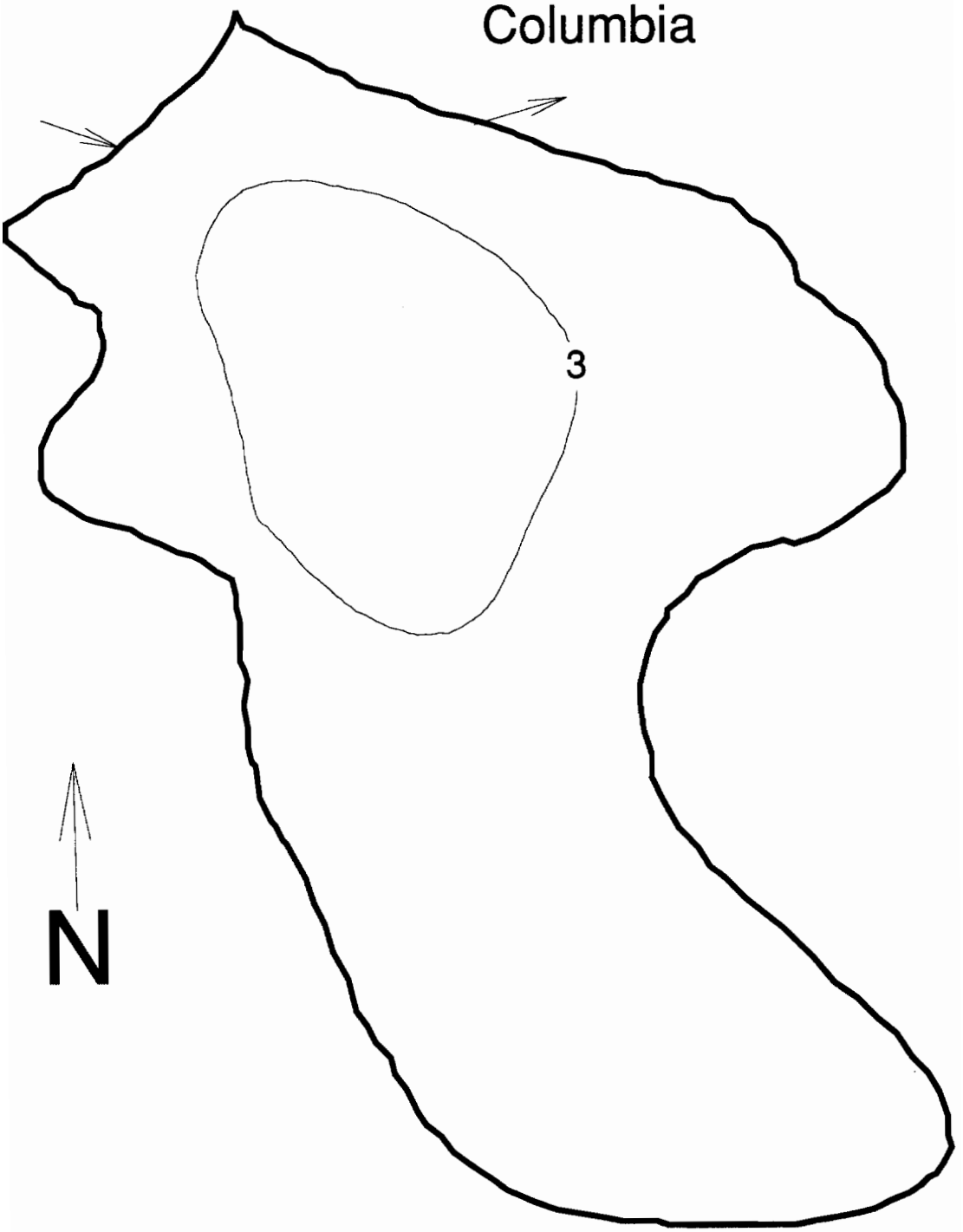
COMMENTS:

1. This is a remote pond that was surveyed jointly with the NH Fish and Game Department. It was not sampled during the winter months.

2. Cranberry Bog has been sampled by helicopter since 1992 as part of the cooperative DES/F&G effort to monitor acid rain parameters in remote trout ponds.

Cranberry Bog Pond

Columbia



3 foot depth contour

0 0.1

Km

FIELD DATA SHEET

LAKE: CRANBERRY BOG POND TOWN: COLUMBIA
DATE: 08/04/94 WEATHER: SUNNY & BREEZY

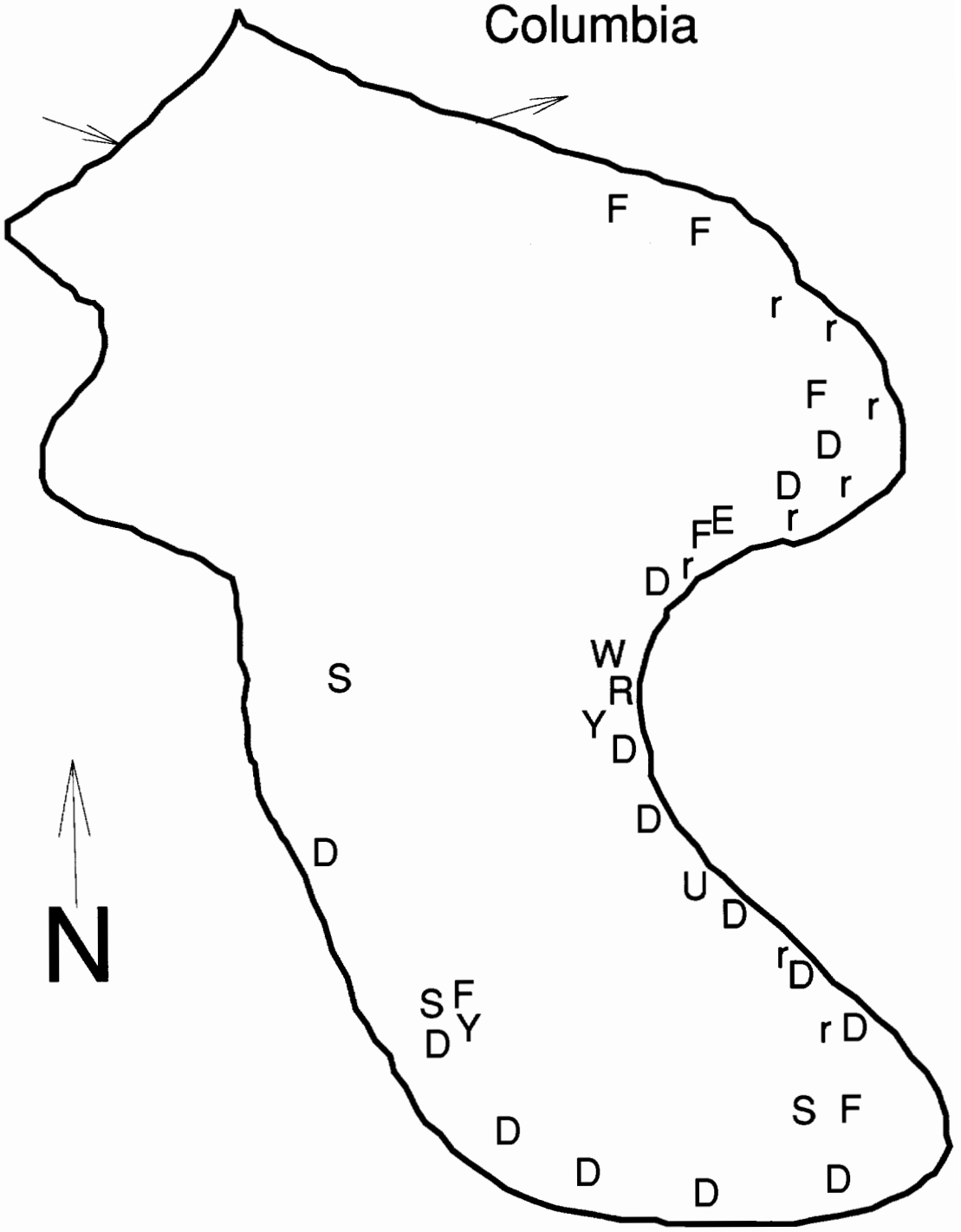
	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	21.5	7.8	86 %
	0.5	21.5	7.3	81 %
	1.0	21.0	7.7	85 %

SECCHI DISK (m): 1.2 VOB COMMENTS:
BOTTOM DEPTH (m): 1.2
TIME: 1030

*Dissolved oxygen values are in mg/L

Cranberry Bog Pond

Columbia



0 0.1

Km

AQUATIC PLANT SURVEY

LAKE: CRANBERRY BOG POND TOWN: COLUMBIA DATE: 08/04/94

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
r	Drosera	Sundew	Scattered
F	Nymphoides cordatum	Floating heart	Scattered
E	Eriocaulon septangulare	Pipewort	Scattered
D	Decodon verticillatus	Swamp loosestrife	Scat/Common
S	Sparganium	Bur reed	Scattered
R	Sarracenia purpurea	Pitcher-plant	Sparse
W	Potamogeton	Pondweed	Scattered
Y	Nuphar	Yellow water lily	Scattered
U	Utricularia	Bladderwort	Scattered

OVERALL ABUNDANCE: Scattered

GENERAL OBSERVATIONS:

1. This pond was completely surrounded by sphagnum and other bog plants, with numerous floating mats.
2. Many dead trees and stumps were present, especially in the southern end.
3. A currently-maintained beaver dam was present.