

**Standard Aquatic Vegetation Summary Sheet**

Lake Name: Long Lake  
 County: Cheboygan  
 Surveyor: Paul Hausler  
 Total Number of AVAS Sites: 98  
 Survey Date: 24-Aug-18

Code No	Plant Name	Occurrence per Density Category				Relative Density Calculations				Relative Density for Entire Littoral Zone		Code No	Plant Name
		A	B	C	D	A x 1	B x10	C x 40	D x 80	Sum	%		
1	Eurasian milfoil	2	1			2	10	0	0	12	0.1	1	<i>Myriophyllum spicatum</i>
2	Curly leaf pondweed		1			0	10	0	0	10	0.1	2	<i>Potamogeton crispus</i>
3	Chara	1	66	5		1	660	200	0	861	8.8	3	<i>Chara sp.</i>
4	Thinleaf pondweed	3	21	12		3	210	480	0	693	7.1	4	<i>Potamogeton sp.</i>
5	Flatstem pondweed					0	0	0	0	0	0.0	5	<i>Potamogeton zosteriformis</i>
6	Robbins pondweed					0	0	0	0	0	0.0	6	<i>Potamogeton robbinsii</i>
7	Variable pondweed					0	0	0	0	0	0.0	7	<i>Potamogeton gramineus</i>
8	Whitestem pondweed					0	0	0	0	0	0.0	8	<i>Potamogeton praelongus</i>
9	Richardsons pondweed		13	10		0	130	400	0	530	5.4	9	<i>Potamogeton richardsonii</i>
10	Illinois pondweed		56	9		0	560	360	0	920	9.4	10	<i>Potamogeton illinoensis</i>
11	Large leaf pondweed		13	9		0	130	360	0	490	5.0	11	<i>Potamogeton amplifolius</i>
12	American pondweed					0	0	0	0	0	0.0	12	<i>Potamogeton americanus</i>
13	Floating leaf pondweed	1	15			1	150	0	0	151	1.5	13	<i>Potamogeton natans</i>
14	Water stargrass					0	0	0	0	0	0.0	14	<i>Heteranthera dubia</i>
15	Wild celery		50	2		0	500	80	0	580	5.9	15	<i>Vallisneria americana</i>
16	Sagittaria		1			0	10	0	0	10	0.1	16	<i>Sagittaria sp.</i>
17	Northern milfoil					0	0	0	0	0	0.0	17	<i>Myriophyllum sibiricum</i>
18	M. verticillatum		1			0	10	0	0	10	0.1	18	<i>Myriophyllum verticillatum</i>
19	M. heterophyllum					0	0	0	0	0	0.0	19	<i>Myriophyllum heterophyllum</i>
20	Coontail		2			0	20	0	0	20	0.2	20	<i>Ceratophyllum demersum</i>
21	Elodea					0	0	0	0	0	0.0	21	<i>Elodea canadensis</i>
22	Utricularia spp.					0	0	0	0	0	0.0	22	<i>Utricularia vulgaris</i>
23	Bladderwort-mini					0	0	0	0	0	0.0	23	<i>Utricularia minor</i>
24	Buttercup		2			0	20	0	0	20	0.2	24	<i>Ranunculus sp.</i>
25	Najas flexilis		45	24		0	450	960	0	1,410	14.4	25	<i>Najas flexilis</i>
26	Brittle naiad					0	0	0	0	0	0.0	26	<i>Najas minor</i>
27	Sago pondweed					0	0	0	0	0	0.0	27	<i>Stuckenia pectinata</i>
28						0	0	0	0	0	0.0	28	
29						0	0	0	0	0	0.0	29	
30	Nymphaea		6	5		0	60	200	0	260	2.7	30	<i>Nymphaea odorata</i>
31	Nuphar		5	2		0	50	80	0	130	1.3	31	<i>Nuphar sp.</i>
32	Brasenia		4			0	40	0	0	40	0.4	32	<i>Brasenia schreberi</i>
33	Lemna minor					0	0	0	0	0	0.0	33	<i>Lemna minor</i>
34	Spirodella					0	0	0	0	0	0.0	34	<i>Spirodela polyrhiza</i>
35	Watermeal		1			0	10	0	0	10	0.1	35	<i>Wolffia punctata</i>
36	Arrowhead					0	0	0	0	0	0.0	36	<i>Sagittaria latifolia</i>
37	Pickereelweed					0	0	0	0	0	0.0	37	<i>Pontederia cordata</i>
38	Arrow arum					0	0	0	0	0	0.0	38	<i>Peltandra virginica</i>
39	Cattails		8	1		0	80	40	0	120	1.2	39	<i>Typha sp.</i>
40	Bulrushes		9	3		0	90	120	0	210	2.1	40	<i>Scirpus sp.</i>
41	Iris					0	0	0	0	0	0.0	41	<i>Iris sp.</i>
42	Swamp loosestrife		4	6		0	40	240	0	280	2.9	42	<i>Decodon verticillatus</i>
43	Purple loosestrife					0	0	0	0	0	0.0	43	<i>Lythrum salicaria</i>
59	Submersed bulrush		1			0	10	0	0	10	0.1	59	<i>Schoenoplectus subterminalis</i>
61	Lake sedge		8			0	80	0	0	80	0.8	61	<i>Carex lacustris</i>

Total: 70.0

Plant Survey Data Sheet

Date: 8-24-18

Lake: LONG

County: CHEBOYGAN

59 ~~21~~ S. SUBTERMINALS

Sheet 1 of 2

Crew: POIT

61 ~~55~~ LANE SEDGE

H<sub>2</sub>O = ~~73~~ °F  
75

Row #	Point #	Species and Density										Row #	Point #	Species and Density									
		1	2	3	4	5	6	7	8	9	10			1	2	3	4	5	6	7	8	9	10
1		4c	10b	3b	25b							26		9c	25c	3b	10b	4b					
2		4c	10c	3b	25c	39b						27		9c	25c	4c							
3		3b	25c	15b	4b	10b	9b					28		1b	9c	10b	11b	25c					
4		3b	10c	9b	25b	15b	11b					29		9c	10b	25c	3b						
5		3b	15b	9c	11b	4b						30		40b	4c	11c	25b	15b					
6		3b	11c	15b	25b	4b						31		15b	10b	11c	25c	4b					
7		10b	11b	3b	15b	<del>3b</del>	25b					32		30b	9b	4b	<del>11c</del>	15b	11c				
8	61	<del>10b</del>	10c	15b	40b	4c						33		10c	10c	11c	4c	25b					
9		4c	25c	10b	3b	11b	15b					34		11c	15b	25b	3b	4b			59		
10		3b	25c	4c	15b	13b	32b	30b	42b			35		11c	10b	10c	3b	25c	15b	<del>25b</del>			
11		3b	30c	42c	39c	15b	32b					36		3c	11c	10b	15b	25b					
12		42c	30c	3b	32b	15b	20b					37		25b	3b	11b	15b	10b					
13		13b	31b	30b	42c	10b	20b	15b				38		15b	10b	25b	13b	11c					
14		31b	42b	15b	25c	10c						39		15b	25b	10b	11b	9b					
15		10c	4b	25b	3b	15b	31b	42b	39b	9b		40		3b	25b								
16		31c	42b	39b	3b	25b	13b	<del>30b</del>	9b			41		42c	31b	30b	10b	15b					
17		4c	9c	10b	<del>30b</del>	24b	39b	31b	40b	32b		42		30c	42c	31b	25b	<del>3b</del>	3c	10b	15b	11b	
18		9c	25c	11b	3b	40b	30b					43		25c	15b	10b	24b	10b	39b	40b			
19		9c	25c	4b	30b	13b	10b					44		15b	10b	3b	25b	13b	4b				
20		<del>10b</del>	25c	15b	13b							45		4b	15b	3b	25b						
21		<del>10b</del>	25c	3b	10b							46		10b	25b	11b	3b	15b					
22		<del>10b</del>	39b	4c	10b	3b						47		15b	3b	10b	25b						
23		3b	<del>10b</del>	25c	10c							48		3b	15b	4b							
24		3b	15b	25b	9b							49		42c	30c	31c	4b	15b	10b	16b	9b		
25		30c	40b	25c	15b	<del>3b</del>	4c	9c				50		25b	10b	9b	15b						

H<sub>2</sub>O = 75°F

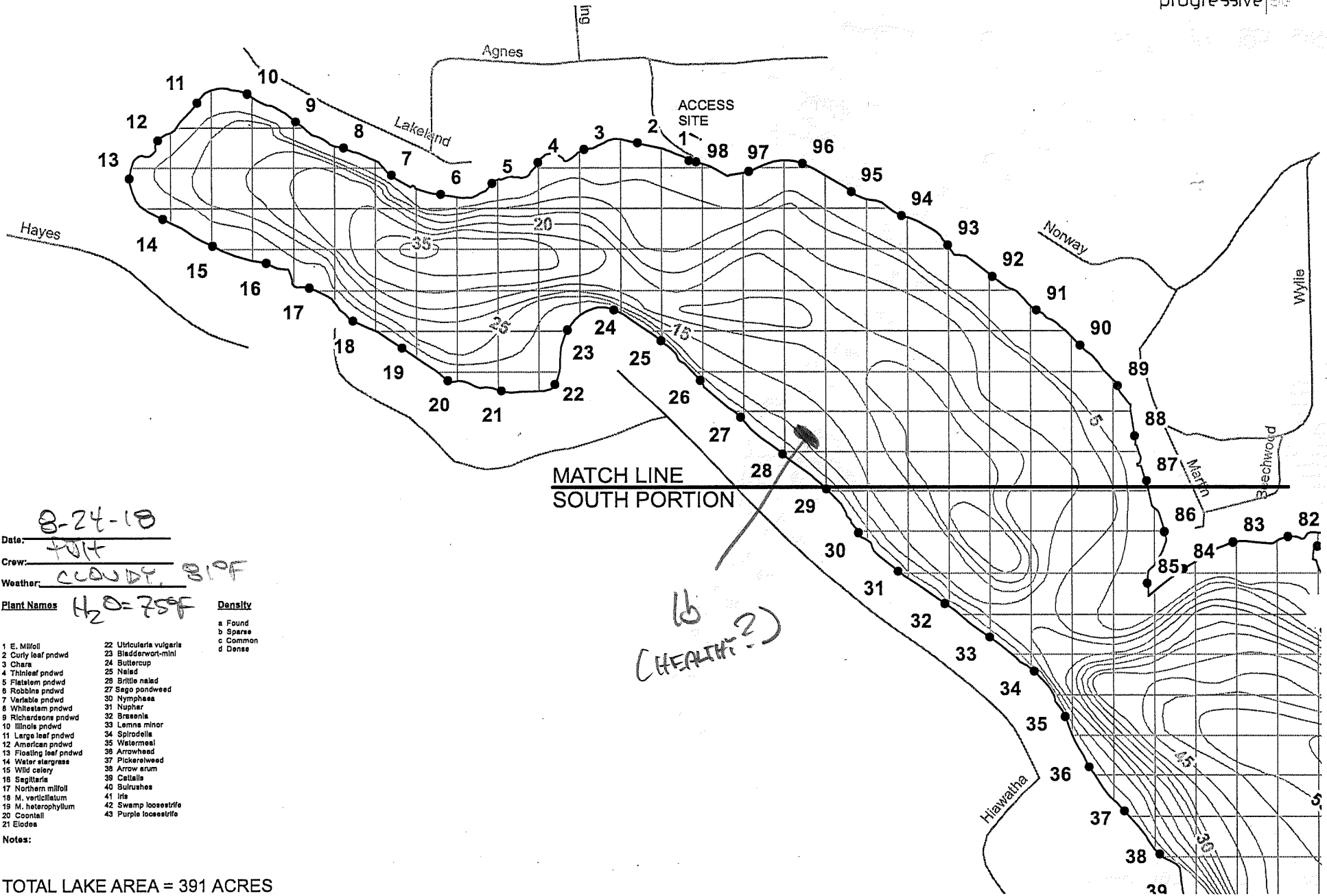
Row #	Point #	Species and Density										Row #	Point #	Species and Density									
	#	1	2	3	4	5	6	7	8	9	10		#	1	2	3	4	5	6	7	8	9	10
51		4b	10b	25b	9b							76		10b	25b								
52		15b	25c	3b	6b							77		3b	4a	10b							
53		4b	25c	11b	10b	15c						78		3b	25b	10b							
54		15c	4c	10b	3b							79		<del>10b</del>	40c	3b							
55		4c	25c	15b	3b	10b						80		10b	3b	25b							
56		3b	10b	25b	13b							81		4b	3b	10b	<del>5b</del>						
57		13b	3b	10b	25b	11b						82		30a	10b	15b							
58		3b	10b									83		15b	25b	3b	10b						
59		3c	15b	10b								84		3b	10b								
60		3b	10b									85		NONE									
61		40c	3b	10b	15b	25b						86		10c	4b	3b	25b	30b	15b				
62		40b	<del>10b</del>	3c	15b	10b	30a					87		15b	10b	3c	13b						
63		3b	25b	15b	9c	12b						88		3b	10b								
64		3b	25b	4c	15b							89		3b	25b	10b	15b						
65		3b	25c	15b	10b							90		3b	10b	25b	9b						
66		40b	25b									91		25c	3b	4b							
67	--	3b	25b	12b								92		25b	3b	10c	15b	9b					
68		3b	25b									93		3b	15b	10b	25b	13b					
69		3b	4a									94		13b	10b	2b	25b						
70		40b	3b									95		4b	3b	10b	25c	11b					
71		3b	25b	4b	9b							96		10b	3b	25b							
72		10b	15b	25b	3b							97		4b	25b	2b							
73		3b	10b	25b								98		3b	10b								
74		25b										99											
75		2b										100											

LONG LAKE (NORTH PORTION)  
CHEBOYGAN COUNTY, MICHIGAN  
AQUATIC PLANT SURVEY MAP



1 in = 700 ft

progressive|sc



Date: 8-24-18  
Crew: FOH  
Weather: CLOUDY, 81°F

Plant Names: H<sub>2</sub>O = 75°F

- 1 E. Milfoil
- 2 Curly leaf pondweed
- 3 Chara
- 4 Thinleaf pondweed
- 5 Flatstem pondweed
- 6 Robbina pondweed
- 7 Variable pondweed
- 8 Whiteslam pondweed
- 9 Richardson's pondweed
- 10 Illinois pondweed
- 11 Large leaf pondweed
- 12 American pondweed
- 13 Floating leaf pondweed
- 14 Water stargrass
- 15 Wild celery
- 16 Sagittaria
- 17 Northern milfoil
- 18 M. verticillatum
- 19 M. heterophyllum
- 20 Coontail
- 21 Elodea

- 22 Utricularia vulgaris
- 23 Bladderwort-mini
- 24 Buttercup
- 25 Najas
- 26 Brittle naiad
- 27 Sage pondweed
- 28 Nymphaea
- 29 Nuphar
- 30 Brasenia
- 31 Lemna minor
- 32 Spirodella
- 33 Watermeal
- 34 Arrowhead
- 35 Pickerelweed
- 36 Arrow arum
- 37 Callitriche
- 38 Bulrushes
- 39 Iris
- 40 Swamp loosestrife
- 41 Purple loosestrife

Density  
a Found  
b Sparse  
c Common  
d Dense

Notes:

TOTAL LAKE AREA = 391 ACRES  
REVISION DATE: FEBRUARY 2018

LONG LAKE (SOUTH PORTION)  
CHEBOYGAN COUNTY, MICHIGAN  
AQUATIC PLANT SURVEY MAP

MATCH LINE  
NORTH PORTION

Date: 8-24-18

Crew: RTH

Weather: CLOUDY, 81°F

HS - 75°F

- | Plant Names            |                         | Density  |
|------------------------|-------------------------|----------|
| 1 E. Millfoil          | 22 Utricularia vulgaris | a Found  |
| 2 Curly leaf pndwd     | 23 Bladderwort-mini     | b Sparse |
| 3 Chara                | 24 Buttercup            | c Common |
| 4 Thinleaf pndwd       | 25 Naiad                | d Dense  |
| 5 Flatstem pndwd       | 26 Brittle naiad        |          |
| 6 Robbins pndwd        | 27 Sago pondweed        |          |
| 7 Variable pndwd       | 30 Nymphaea             |          |
| 8 Whitestem pndwd      | 31 Nuphar               |          |
| 9 Richardsons pndwd    | 32 Brasenia             |          |
| 10 Illinois pndwd      | 33 Lemna minor          |          |
| 11 Large leaf pndwd    | 34 Spirodella           |          |
| 12 American pndwd      | 35 Watermeal            |          |
| 13 Floating leaf pndwd | 36 Arrowhead            |          |
| 14 Water stargrass     | 37 Pickerelweed         |          |
| 15 Wild celery         | 38 Arrow arum           |          |
| 16 Sagittaria          | 39 Cattail              |          |
| 17 Northern milfoil    | 40 Bulrushes            |          |
| 18 M. verticillatum    | 41 Iris                 |          |
| 19 M. heterophyllum    | 42 Swamp loosestrife    |          |
| 20 Coontail            | 43 Purple loosestrife   |          |
| 21 Elodea              |                         |          |
- Notes:



1 in = 800 ft  
progressive

TOTAL LAKE AREA = 391 ACRES  
REVISION DATE: FEBRUARY 2018

DEPTH CONTOUR SOURCE - MICHIGAN CONSERVATION DEPARTMENT 1937.

