

Standard Aquatic Vegetation Summary Sheet



Lake Name: **Hardwood Lake**
 County: Ogemaw County
 Surveyor: Paul Hausler, Garrett Groves
 Total Number of AVAS Sites: 49

Survey Date: 19-Aug-09

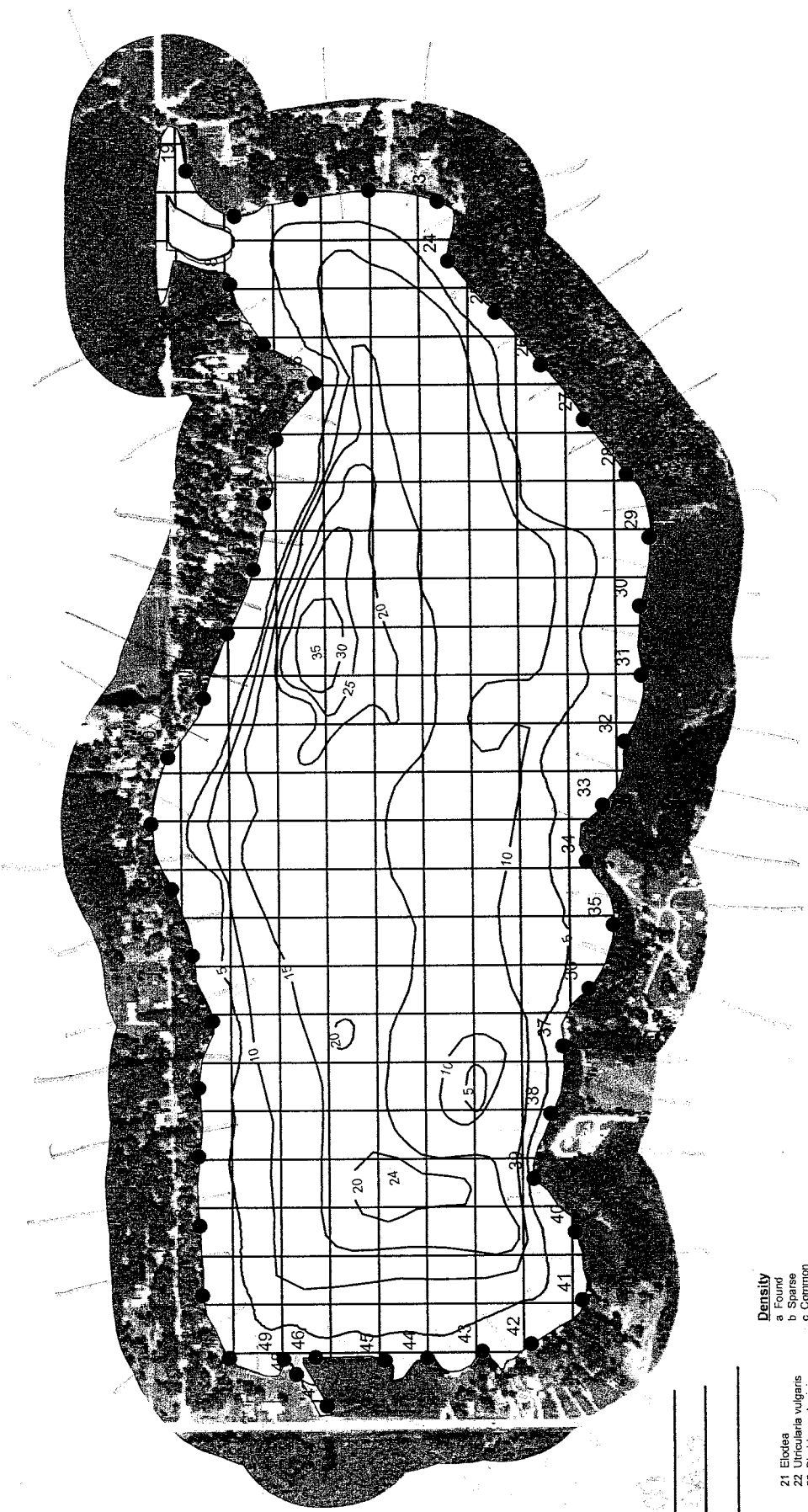
Code No	Plant Name	Occurrence per Density Category				Relative Density Calculations				Relative Density for Entire Littoral Zone		Code No	Plant Name
		A	B	C	D	A x 1	B x10	C x 40	D x 80	Sum	%		
1	Eurasian milfoil					0	0	0	0	0	0.0	1	Eurasian milfoil
2	Curly leaf pondweed	1				1	0	0	0	1	0.0	2	Curly leaf pondweed
3	Chara		1			0	10	0	0	10	0.2	3	Chara
4	Thinleaf pondweed		13	21	1	0	130	840	80	1050	21.4	4	Thinleaf pondweed
5	Flatstem pondweed		5	6		0	50	240	0	290	5.9	5	Flatstem pondweed
6	Robbins pondweed					0	0	0	0	0	0.0	6	Robbins pondweed
7	Variable pondweed					0	0	0	0	0	0.0	7	Variable pondweed
8	Whitestem pondweed					0	0	0	0	0	0.0	8	Whitestem pondweed
9	Richardson's pondweed					0	0	0	0	0	0.0	9	Richardson's pondweed
10	Illinois pondweed		1			0	10	0	0	10	0.2	10	Illinois pondweed
11	Large leaf pondweed		5	9	1	0	50	360	80	490	10.0	11	Large leaf pondweed
12	American pondweed					0	0	0	0	0	0.0	12	American pondweed
13	Floating leaf pondweed		1			0	10	0	0	10	0.2	13	Floating leaf pondweed
14	Water stargrass	1	5	17	2	1	50	680	160	891	18.2	14	Water stargrass
15	Wild celery	1	11	5	1	1	110	200	80	391	8.0	15	Wild celery
16	Sagittaria					0	0	0	0	0	0.0	16	Sagittaria
17	Northern milfoil					0	0	0	0	0	0.0	17	Northern milfoil
18	M. verticillatum					0	0	0	0	0	0.0	18	M. verticillatum
19	M. heterophyllum					0	0	0	0	0	0.0	19	M. heterophyllum
20	Coontail	1	3	2		1	30	80	0	111	2.3	20	Coontail
21	Elodea					0	0	0	0	0	0.0	21	Elodea
22	Utricularia spp.		2			0	20	0	0	20	0.4	22	Utricularia spp.
23	Bladderwort-mini					0	0	0	0	0	0.0	23	Bladderwort-mini
24	Buttercup					0	0	0	0	0	0.0	24	Buttercup
25	Najas spp.		5	2		0	50	80	0	130	2.7	25	Najas spp.
26	Brittle naiad					0	0	0	0	0	0.0	26	Brittle naiad
27	Swamp milkweed		3	1		0	30	40	0	70	1.4	27	Swamp milkweed
28	Jewel weed	1	3	2		1	30	80	0	111	2.3	28	Jewel weed
29	Carex lacustris		3	4		0	30	160	0	190	3.9	29	Carex lacustris
30	Nymphaea		18	27		0	180	1,080	0	1260	25.7	30	Nymphaea
31	Nuphar		2	17		0	20	680	0	700	14.3	31	Nuphar
32	Brasenia					0	0	0	0	0	0.0	32	Brasenia
33	Lemna minor					0	0	0	0	0	0.0	33	Lemna minor
34	Spirodella					0	0	0	0	0	0.0	34	Spirodella
35	Watermeal					0	0	0	0	0	0.0	35	Watermeal
36	Arrowhead					0	0	0	0	0	0.0	36	Arrowhead
37	Pickerelweed		3	7		0	30	280	0	310	6.3	37	Pickerelweed
38	Arrow arum					0	0	0	0	0	0.0	38	Arrow arum
39	Cattails		8	7		0	80	280	0	360	7.3	39	Cattails
40	Bulrushes	1	13	9	1	1	130	360	80	571	11.7	40	Bulrushes
41	Iris					0	0	0	0	0	0.0	41	Iris
42	Swamp loosestrife		7	1		0	70	40	0	110	2.2	42	Swamp loosestrife
43	Purple loosestrife					0	0	0	0	0	0.0	43	Purple loosestrife
44						0	0	0	0	0	0.0	44	
45						0	0	0	0	0	0.0	45	

Total: 144.6

Point #	Species and Density										Point #	Species and Density																												
	1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10																			
26	15c	31c	30b	14c	4c																																			
27	30c	31c	4b	25b	15b																																			
28	30c	31c	5b	11b	25b																																			
29	40c	14c	11c	31c	30b	42b	37c																																	
30	40d	30c	31c	11c	14c																																			
31	30c	31c	42c	37c	40c																																			
32	31c	30b	37b	42b	4b	5b																																		
33	37c	31c	4b	14c	30c	20b																																		
34	40c	31c	39b	37c	4b	14b																																		
35	4c	40c	30c	31c	11b	14b																																		
36	14c	31c	30c	5b	4c																																			
37	4c	14c	5c	11c	15b	30c																																		
38	40c	30c	4c	11c	14c																																			
39	410c	15b	4c	30c	11b																																			
40	30c	40c	13b	4b																																				
41	30c	30c	37c	5c	14c	39c	22c	40b	41b																															
42	4c	30b	5b	11c	14c	27b	40c																																	
43	28c	11c	10b	4b	30c	39c	42b																																	
44	30c	31b	4c	5c	40b	14b																																		
45	30c	37c	11c	39c	28c	5c																																		
46	30c	37b	30c	31b	11b																																			
47	30c	14c	5c	31c	39b	42b																																		
48	30c	14c	5c	31c	39b	42b																																		
49	4c	14c	11b	30b																																				

HARDWOOD LAKE AQUATIC PLANT SURVEY MAP 182 ACRES

□ = 1 ACRE



Date: _____
Crew: _____
Weather: _____

Density

- a Found
- b Sparse
- c Common
- d Dense

Plant Names

- 1 E. Milfoil
- 2 Curly leaf pondw
- 3 Chara
- 4 Smartweed
- 5 Spatterdock
- 6 Robins pondw
- 7 Variable pondw
- 8 Rattlesnake pondw
- 9 Illinois pondw
- 10 Large leaf pondw
- 11 American pondw
- 12 Floating leaf pondw
- 13 Water stargrass
- 14 Wild celery
- 15 Sagittaria
- 16 Northern milfoil
- 17 M. verticillatum
- 18 M. heterophyllum
- 19 Coontail
- 21 Elodea
- 22 Utricularia vulgaris
- 23 Bladderwort mini
- 24 Bladder cup
- 25 Bladder
- 26 Brittle naiad
- 30 Nymphaea
- 31 Nuphar
- 32 Brasenia
- 33 Lemna minor
- 34 Spirodella
- 35 Watermeal
- 36 Arrowhead
- 37 Pickerelweed
- 38 Arrow arum
- 39 Cattails
- 40 Bulrushes
- 41 Iris
- 42 Swamp loosestrife
- 43 Purple loosestrife

Notes:



1 inch = 700 feet

ProgressiveAE
1811 1/2 Mile Road, NE
Grand Rapids, Michigan 49525-2442
V: 616/361-2664 F: 616/361-1463
www.progressiveae.com