

Standard Aquatic Vegetation Summary Sheet



Lake Name: **Hardwood Lake**
 County: Ogemaw County
 Surveyor: Paul Hausler
 Total Number of AVAS Sites: 52

Survey Date: 16-Sep-10

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					0	0	0	0	0	0.0	2	Curly leaf pondweed
3	Chara					0	0	0	0	0	0.0	3	Chara
4	Thinleaf pondweed	1	4			1	40	0	0	41	0.8	4	Thinleaf pondweed
5	Flatstem pondweed					0	0	0	0	0	0.0	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					0	0	0	0	0	0.0	10	Illinois pondweed
11	Large leaf pondweed		5	4		0	50	160	0	210	4.0	11	Large leaf pondweed
12	American pondweed					0	0	0	0	0	0.0	12	American pondweed
13	Floating leaf pondweed		2			0	20	0	0	20	0.4	13	Floating leaf pondweed
14	Water stargrass					0	0	0	0	0	0.0	14	Water stargrass
15	Wild celery		14	4		0	140	160	0	300	5.8	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	2	3		1	20	120	0	141	2.7	20	Coontail
21	Elodea					0	0	0	0	0	0.0	21	Elodea
22	Utricularia spp.					0	0	0	0	0	0.0	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.					0	0	0	0	0	0.0	25	Najas spp.
26	Brittle naiad					0	0	0	0	0	0.0	26	Brittle naiad
27	Sago pondweed					0	0	0	0	0	0.0	27	Sago pondweed
28	Carex lacustris	1	8	1		1	80	40	0	121	2.3	28	Carex lacustris
29	Jewel weed		2			0	20	0	0	20	0.4	29	Jewel weed
30	Nymphaea	3	22	22		3	220	880	0	1103	21.2	30	Nymphaea
31	Nuphar		7	23		0	70	920	0	990	19.0	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		2	6		0	20	240	0	260	5.0	35	Watermeal
36	Arrowhead					0	0	0	0	0	0.0	36	Arrowhead
37	Pickerelweed		9	8		0	90	320	0	410	7.9	37	Pickerelweed
38	Arrow arum					0	0	0	0	0	0.0	38	Arrow arum
39	Cattails	1	12	6		1	120	240	0	361	6.9	39	Cattails
40	Bulrushes	2	13	7		2	130	280	0	412	7.9	40	Bulrushes
41	Iris	4	6	2		4	60	80	0	144	2.8	41	Iris
42	Swamp loosestrife					0	0	0	0	0	0.0	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: 87.2

Plant Survey Data Sheet

Lake: HARDWOOD

Sheet 1 of 2

Date: 9-16-10

County: OLDFARM

Crew: RSH

☁ 59°F H₂O = 64°F

28. CAREX LACUSTRIS
29. JEWEL WEED

50760102/002

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

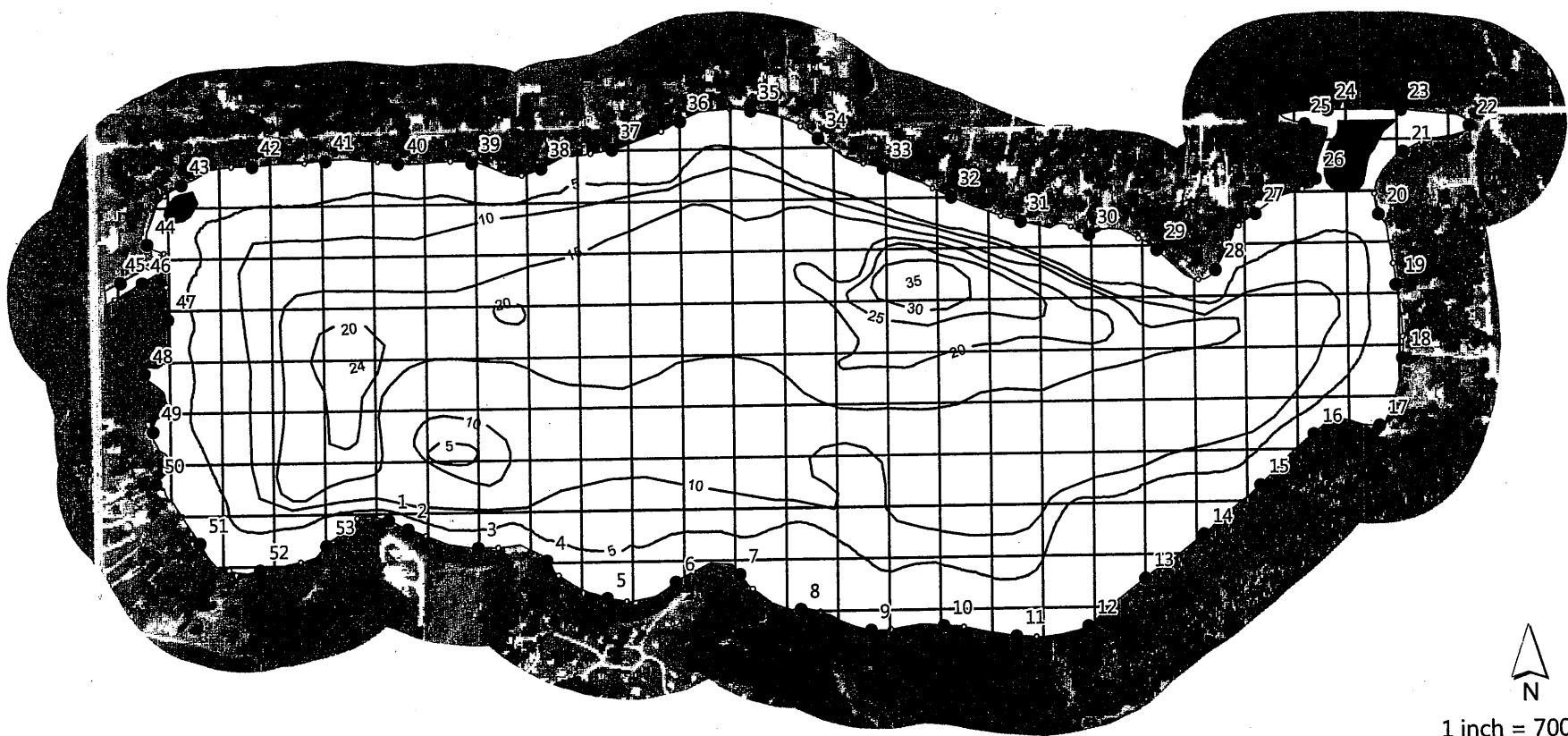
Date: 9-16-10
 Crew: RSH
 Weather: Cloudy, 65°F
H₂O = 65°F

HARDWOOD LAKE AQUATIC PLANT SURVEY MAP 182 ACRES

= 1 ACRE

Plant Names	Density
1 E. Milfoil	21 Elodea
2 Curly leaf pndwd	22 Utricularia vulgaris
3 Chara	23 Bladderwort-mini
4 Threelobed pndwd	24 Buttercup
5 Flatstem pndwd	25 Naiad
6 Robbins pndwd	26 Brittle naiad
7 Variable pndwd	30 Nymphaea
8 Whitesstem 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 Cattails
17 Northern milfoil	40 Bulrushes
18 M. verticillatum	41 Iris
19 M. heterophyllum	42 Swamp loosestrife
20 Coontail	43 Purple loosestrife

Notes:



1 inch = 700 feet

progressive|ae

1831 4 Mile Rd NE
 Grand Rapids, MI 49525
 616 361 2664 OFFICE
 616 361 1933 FAX
 www.progressiveae.com