

Standard Aquatic Vegetation Summary Sheet

Lake Name: **Hardwood Lake** Ogemaw County
 Survey Date: **14-Sep-06** # AVAS 38
 Surveyors: **Paul Hausler**



Code #	Plant Name	Occurrence per Density Category				Relative Density Calculations				Relative Density for Entire Littoral Zone		Code #	Plant Name
		a	b	c	d	(a x 1)	(b x 10)	(c x 40)	(d x 80)	Sum	%		
1	E. Milfoil	2		1		0	20	40	0	60	1.6	1	E. Milfoil
2	Curlyleaf pndwd		2			0	20	0	0	20	0.5	2	Curlyleaf pndwd
3	Chara					0	0	0	0	0	0.0	3	Chara
4	Thinleaf pndwd	2	20	7		2	200	280	0	482	12.7	4	Thinleaf pndwd
5	Flatstem pndwd					0	0	0	0	0	0.0	5	Flatstem pndwd
6	Robbins pndwd					0	0	0	0	0	0.0	6	Robbins pndwd
7	Variable pndwd					0	0	0	0	0	0.0	7	Variable pndwd
8	Whitestem pndwd					0	0	0	0	0	0.0	8	Whitestem pndwd
9	Richardsons pndwd					0	0	0	0	0	0.0	9	Richardsons pndwd
10	Illinois pndwd					0	0	0	0	0	0.0	10	Illinois pndwd
11	Largeleaf pndwd		4	2		0	40	80	0	120	3.2	11	Largeleaf pndwd
12	American pndwd	1	1			1	10	0	0	11	0.3	12	American pndwd
13	Floating leaf pndwd					0	0	0	0	0	0.0	13	Floating leaf pndwd
14	Water stargrass					0	0	0	0	0	0.0	14	Water stargrass
15	Wild celery	1	17	7		1	170	280	0	451	11.9	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	1		0	10	40	0	50	1.3	20	Coontail
21	Elodea					0	0	0	0	0	0.0	21	Elodea
22	Utricularia vulgaris					0	0	0	0	0	0.0	22	Utricularia vulgaris
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	Southern naiad					0	0	0	0	0	0.0	25	Southern naiad
26	Brittle naiad					0	0	0	0	0	0.0	26	Brittle naiad
27	Polygonum sp.					0	0	0	0	0	0.0	27	Polygonum sp.
28						0	0	0	0	0	0.0	28	
29						0	0	0	0	0	0.0	29	
30	Nymphaea	2	16	19		2	160	760	0	922	24.3	30	Nymphaea
31	Nuphar					0	0	0	0	0	0.0	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					0	0	0	0	0	0.0	35	Watermeal
36	Arrowhead					0	0	0	0	0	0.0	36	Arrowhead
37	Pickerelweed		4	4		0	40	160	0	200	5.3	37	Pickerelweed
38	Arrow arum					0	0	0	0	0	0.0	38	Arrow arum
39	Cattail		10	2		0	100	80	0	180	4.7	39	Cattail
40	Bulrush		12	6		0	120	240	0	360	9.5	40	Bulrush
41	Iris					0	0	0	0	0	0.0	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										75.2			

ZEBRA MUSSELS?

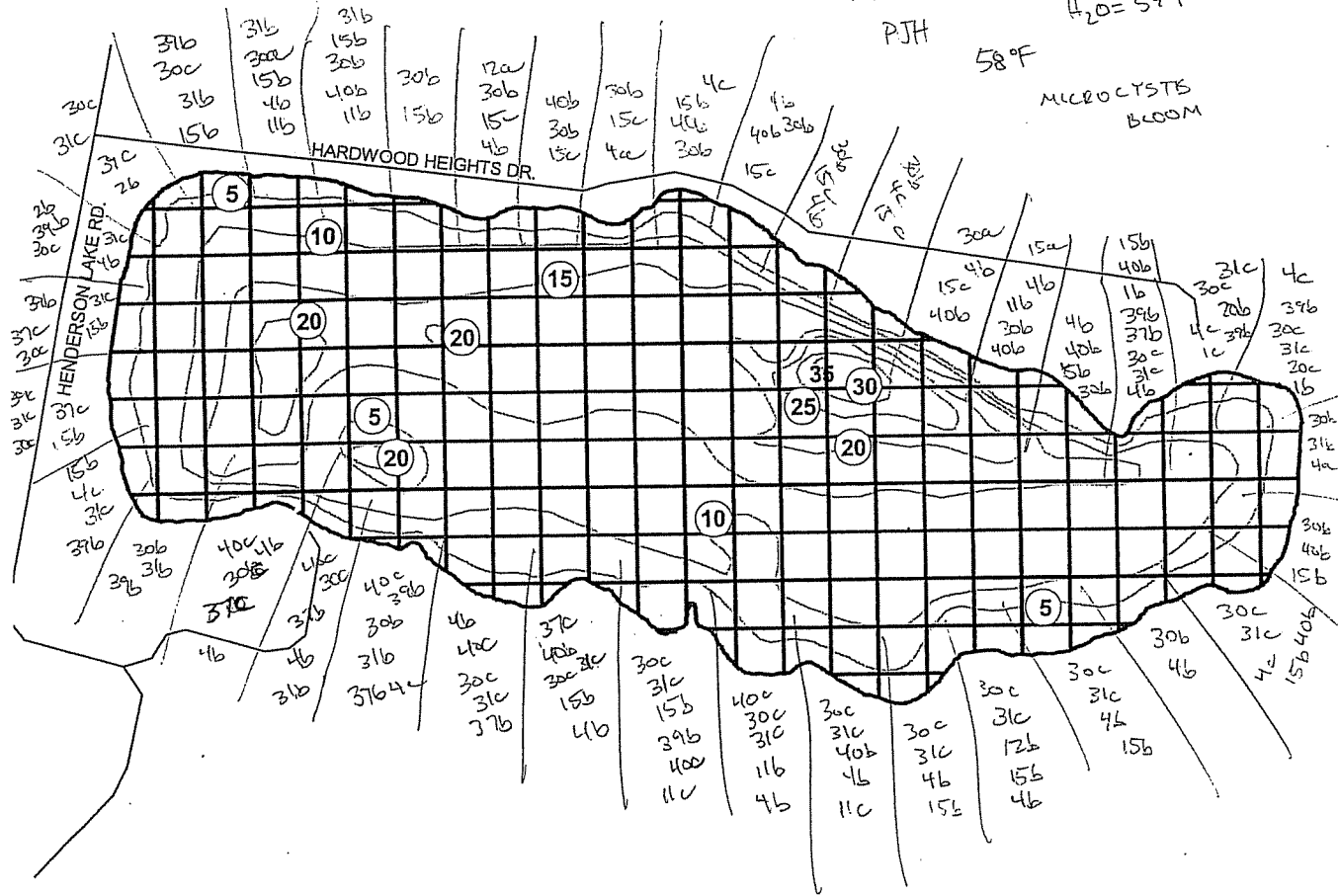
9-14-06

PJH

H₂O = 59°F

58°F

MICROCYSTS BLOOM



Plant Names

- | | |
|---------------------|-------------------------|
| 1 E. Milfoil | 21 Elodea |
| 2 Curlyleaf pndwd | 22 Utricularia vulgaris |
| 3 Chara | 23 Bladderwort-mini |
| 4 Thinleaf pndwd | 24 Buttercup |
| 5 Flatstem pndwd | 25 Southern naiad |
| 6 Robbins pndwd | 26 Brittle naiad |
| 7 Variable pndwd | 30 Nymphaea |
| 8 Whitestem pndwd | 31 Nuphar |
| 9 Richardson pndwd | 32 Brasenia |
| 10 Illinois pndwd | 33 Lemna minor |
| 11 Largeleaf pndwd | 34 Spirodella |
| 12 American pndwd | 35 Watermeal |
| 13 Float 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 |

Density

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

SECCHI: 1.75'

JESSICA KOERNER
06-98-0457-0

DEPTH CONTOURS GIVEN IN FEET



1" = 700' FEET

☐ = 1 ACRE

**HARDWOOD LAKE
AQUATIC PLANT SURVEY MAP**

OGEMAW COUNTY, MICHIGAN

ProgressiveE

1811 4 Mile Road, NE
Grand Rapids, Michigan 49525-2442
V: 616/361-2664 F: 616/361-1493
www.progressivee.com