APPENDIX J

Grapnel Collections of Submersed Macrophytes

Submersed Macrophyte Grapnel Data, JUNE, 1983

Note: 1. (-) indicates missing data
2. (*) indicates < 0.100 g/m2

RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	STAG	1	309033	497382	14.0	No Plants Present			1600	850	-	-
		2	309024	497381	12.0	No Plants Present			3500	2400	2.5	1.3
		3	309041	497386	32.0	No Plants Present			3400	1400	-	-
		4	309034	497386	15.0	No Plants Present			4000	2500	2.7	2.5
		5	309024	497387	8.0	No Plants Present			3000	2600	2.6	2.3
		6	309043	497392	24.0	No Plants Present			2400	1400	-	-
		7	309036	497392	13.0	No Plants Present			4100	2100	2.1	1.7
		8	309025	497391	4.0	No Plants Present			3400	2900	2.6	2.5
		9	309051	497395	32.0	No Plants Present			4000	1100	-	-
		10	309040	497397	13.0	No Plants Present			4200	2100	1.7	1.5
		11	309027	497395	2.0	No Plants Present			4100	4000	2.0	2.0
		12	309054	497404	20.0	No Plants Present			3800	2100	2.0	1.0
		13	309042	497403	10.0	MYRIO. SPICATUM	98	4500	4000	2100	1.5	0.6
						CHARA SPP.	1					
						ELODEA CANADENS	1					
		14	309034	497399	2.0	No Plants Present			4200	4100	0.6	0.2
		15	309056	497408	20.0	No Plants Present			4000	1300	2.2	2.2
		16	309057	497410	18.0	POT. NARROW	50	10	4100	2100	2.5	2.4
						CHARA SPP.	25					
						NITELLA HYALINA	25					
		17	309045	497410	16.0	MYRIO. SPICATUM	100	1800	4100	720	0.6	0.3
		18	309037	497406	2.0	No Plants Present			4000	3900	0.3	0.3
		19	309062	497413	23.0	CHARA SPP.	70	5	4100	1700	2.4	2.1
						POT. NARROW	30					
		20	309057	497416	14.0	POT. CRISPUS	97	80	4000	1700	1.0	0.3
						POT. GRAMINEUS	1					
						CHARA SPP.	1					
						ELODEA CANADENS	1					
		21	309049	497414	3.0	POT. NARROW	95	50	4500	4100	0.3	0.3
						ELODEA CANADENS	4					
						CHARA SPP.	1					

22	309075	497423	31.0	No Plants Present			2600	1100	-	-
23	309068	497421	9.0	POT. NARROW	100	10	4100	2400	1.3	1.0
24	309080	497427	33.0	No Plants Present			3200	1300	-	-
25	309075	497427	5.0	No Plants Present			4000	3000	1.9	1.8
26	309085	497434	34.0	No Plants Present			3000	1200	-	-

Submersed Macrophyte Grapnel Data, JUNE, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR FAWN		1	309573	498255	8.5	POT. GRAMINEUS	100	160	1600	110	-	-
		2	309566	498255	15.0	CHARA SPP.	100	5	2000	1300	1.9	1.5
		3	309592	498252	13.0	POT. NARROW	85	180	1900	850	0.9	0.2
						CHARA SPP.	10					
						ELODEA CANADENS	5					
		4	309570	498259	15.0	CHARA SPP.	100	10	2100	1200	2.1	1.7
		5	309602	498257	36.0	CHARA SPP.	100	5	2000	800	1.2	0.7
		6	309593	498258	24.0	CHARA SPP.	100	5	2100	980	1.1	1.5
		7	309572	498263	12.0	POT. GRAMINEUS	60	20	2000	1000	1.6	1.1
						CHARA SPP.	40					
		8	309603	496265	24.0	No Plants Present			450	310	-	-
		9	309604	498261	21.0	No Plants Present			1900	630	1.3	0.4
		10	309595	498264	9.0	CHARA SPP.	60	10	2000	870	1.8	1.0
						POT. GRAMINEUS	25					
						POT. NARROW	15					
		11	309575	498266	6.0	CHARA SPP.	70	20	2400	950	2.0	0.9
						POT. GRAMINEUS	30					
		12	309610	498268	27.5	No Plants Present			830	300	-	-
		13	309604	498269	28.0	No Plants Present			1800	860	1.5	0.7
		14	309594	498272	2.0	CHARA SPP.	100	5	2000	1500	1.2	1.2
		15	309578	498274	4.0	CHARA SPP.	80	20	2400	1700	1.9	0.8
						POT. NARROW	20					
		16	309633	498287	36.0	No Plants Present			1500	420	-	-
		17	309622	498283	30.0	No Plants Present			2000	830	1.3	1.3
		18	309604	498273	2.0	No Plants Present			2000	1400	1.6	1.2
		19	309626	498280	34.0	No Plants Present			1500	430	-	-
		20	309622	498287	4.0	CHARA SPP.	90	5	2100	1500	1.0	0.5
						POT. GRAMINEUS	10					

Submersed Macrophyte Grapnel Data, JUNE, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	RUSSELL	1	309953	498653	32.0	No Plants Present			2800	2600	-	-
		2	309947	498647	24.0	No Plants Present			2500	210	2.9	2.4
		3	309939	498648	10.0	POT. NARROW	90	100	2300	620	2.1	0.8
						CHARA SPP.	10					
		4	309988	498653	33.0	No Plants Present			3600	2100	-	-
		5	309965	498655	25.0	No Plants Present			2100	43	2.9	2.7
		6	309955	498656	11.2	CHARA SPP.	100	40	2800	500	1.5	1.3
		7	309948	498655	7.7	POT. NARROW	70	60	2800	600	2.1	0.2
						POT. GRAMINEUS	20					
						CHARA SPP.	10					
		8	309929	498658	32.0	No Plants Present			3300	2300	-	-
		9	309976	498662	3.5	CHARA SPP.	80	120	4000	700	2.5	2.5
						ELODEA CANADENS	20					
		10	309966	498663	4.5	CHARA SPP.	60	80	5000	2000	0.9	0.2
						POT. NARROW	30					
						POT. GRAMINEUS	10					
		11	309956	498664	3.5	CHARA SPP.	100	40	3000	2000	1.1	0.9
		12	309947	498665	5.0	CHARA SPP.	100	30	3000	1500	1.3	0.5
		13	309927	498663	32.0	No Plants Present			3500	700	-	-
		14	309953	498670	5.0	POT. NARROW	45	37	3600	2500	-	-
						POT. GRAMINEUS	45					
						CHARA SPP.	10					

Submersed Macrophyte Grapnel Data, JUNE, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	BELLE	1	312760	499947	4.0	POT. NARROW	50	320	3500	43	-	-
						POT. RICHARDSONI	45					
						POT. CRISPUS	3					
						MYRIO. SPICATUM	1					
						ELODEA CANADENS	1					
		2	312753	499945	6.0	POT. RICHARDSONI	99	80	3700	66	-	-
						CHARA SPP.	1					
		3	312772	499961	7.0	POT. CRISPUS	90	620	3500	360	-	-
						POT. RICHARDSONI	9					
						POT. NARROW	1					
		4	312753	499951	13.0	No Plants Present			3600	15	-	-
		5	312773	499964	15.0	No Plants Present			3400	36	-	-
		6	312751	499957	30.0	No Plants Present			3900	6	-	-
		7	312779	499968	8.0	POT. CRISPUS	80	140	2500	150	-	-
						POT. NARROW	15					
						CHARA SPP.	5					
		8	312781	499969	18.5	No Plants Present			3700	14	-	-
		9	312770	499967	34.5	No Plants Present			3600	15	-	-
		10	312790	499975	12.0	No Plants Present			3400	20	-	-
		11	312777	499973	35.0	No Plants Present			3600	13	-	-
		12	312803	499983	7.5	POT. RICHARDSONI	80	40	3400	15	-	-
						CHARA SPP.	15					
						POT. NARROW	5					
		13	312786	499978	34.0	No Plants Present			3500	22	-	-
		14	312859	499995	3.0	CHARA SPP.	95	5	3000	1600	-	-
		15	312848	499993	3.5	CHARA SPP.	75	20	3700	1000	-	-
						VALLISNERIA AMER	25					
		16	312838	499994	4.0	CHARA SPP.	85	60	3700	320	-	-
						VALLISNERIA AMER	15					
		17	312828	499993	2.0	CHARA SPP.	100	330	3400	410	-	-
		18	312813	499988	6.0	CHARA SPP.	100	5	3400	12	-	-
		19	312801	499987	24.0	No Plants Present			2500	15	-	-
		20	312860	500000	21.0	No Plants Present			3600	5	-	-

21	312849	499999	16.0	No Plants Present	3700	7	-	-
22	312840	499998	13.5	No Plants Present	3700	15	-	-
23	312830	499997	33.0	No Plants Present	3600	18	-	-
24	312814	499993	34.0	No Plants Present	3200	15	-	-

Submersed Macrophyte Grapnel Data, JUNE, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	HENNEPIN	1	314077	500675	31.0	No Plants Present			3300	360	0.9	0.8
		2	314065	500673	5.0	POT. NARROW	100	80	3500	1400	0.2	0.0
		3	314079	500680	24.0	No Plants Present			3500	360	0.8	0.7
		4	314070	500679	4.0	POT. NARROW	100	120	3100	1700	0.2	0.1
		5	314063	500678	8.0	POT. RICHARDSONI	100	80	3000	850	0.7	0.4
		6	314081	500685	6.0	POT. NARROW	100	70	3300	1500	0.7	0.3
		7	314073	500684	6.0	POT. NARROW	100	180	3200	1100	0.2	0.1
		8	314065	500684	9.0	POT. RICHARDSONI	90	5	3000	550	0.9	0.7
						POT. NARROW	10					
		9	314096	500694	33.0	No Plants Present			3200	480	1.1	0.8
		10	314087	500692	7.0	POT. NARROW	90	100	3300	1100	0.1	0.1
						NITELLA HYALINA	10					
		11	314076	500690	6.0	POT. NARROW	100	10	3800	1100	0.4	0.3
		12	314066	500691	31.0	No Plants Present			3500	600	1.5	1.3
		13	314096	500696	34.0	No Plants Present			3400	510	1.4	0.9
		14	314089	500693	7.0	NITELLA HYALINA	60	60	3300	1600	0.2	0.1
						POT. NARROW	40					
		15	314080	500697	4.0	POT. NARROW	65	30	3600	1800	0.5	0.2
						NITELLA HYALINA	35					
		16	314671	500698	28.0	No Plants Present			3500	320	1.0	0.7
		17	314101	500705	32.0	No Plants Present			3400	570	0.7	0.1
		18	314093	500704	7.0	NITELLA HYALINA	100	65	3100	1300	0.3	0.2
		19	314082	500702	6.0	NITELLA HYALINA	60	60	4400	2100	0.0	0.0
						POT. NARROW	40					
		20	314074	500703	27.0	No Plants Present			3000	660	0.9	0.3
		21	314104	500711	31.0	No Plants Present			3200	480	1.4	0.6
		22	314095	500710	5.0	POT. NARROW	100	10	3000	1800	0.3	0.2
		23	314086	500709	5.0	POT. NARROW	100	60	3500	2000	0.6	0.4
		24	314077	500709	34.0	No Plants Present			3300	450	1.0	1.0

25	314107	500719	31.0	No Plants Present			3500	440	0.7	0.3
26	314100	500718	7.0	POT. NARROW	70	110	3000	1300	0.2	0.2
				NITELLA HYALINA	29					
				MYRIO. EXALBESC	1					
27	314090	500716	4.0	POT. NARROW	85	200	3400	1100	0.2	0.0
				POT. CRISPUS	15					
28	314082	500715	32.0	No Plants Present			3600	500	1.2	0.5
29	314108	500723	29.0	No Plants Present			3300	380	1.8	0.5
30	314104	500725	6.0	POT. NARROW	80	205	3000	1200	0.2	0.1
				NITELLA HYALINA	20					
31	314093	500722	6.0	POT. NARROW	80	160	3500	1400	0.3	0.1
				NITELLA HYALINA	20					
32	314085	500725	34.0	No Plants Present			3300	830	0.9	0.8
33	314107	500733	9.0	POT. NARROW	100	55	3400	1100	0.1	0.1
34	314097	500731	12.0	POT. NARROW	100	10	3600	500	0.8	0.6
35	314089	500730	33.0	No Plants Present			3600	590	1.0	0.9
36	314110	500741	9.0	POT. NARROW	98	25	3000	870	0.5	0.2
				VALLISNERIA AMER	2					
37	314102	500739	37.0	No Plants Present			3600	740	0.7	0.6
38	314096	500740	32.0	No Plants Present			3400	550	1.5	1.1
39	314111	500745	13.0	No Plants Present			2500	270	0.6	0.3
40	314110	500752	34.0	No Plants Present			3700	830	1.1	0.9

Submersed Macrophyte Grapnel Data, JUNE, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	STONEY	1	314229	500974	9.0	POT. NARROW	100	100	4100	510	1.3	1.0
		2	314216	500973	9.0	POT. NARROW	100	80	3900	660	0.8	0.4
		3	314205	500974	8.0	POT. NARROW	100	30	4300	1100	0.8	0.5
		4	314193	500973	8.8	MYRIO. SPICATUM	60	20	4000	750	0.4	0.1
						POT. NARROW	40					
		5	314183	500972	17.0	No Plants Present			4000	310	0.8	0.6
		6	314236	500982	12.0	POT. NARROW	100	40	3800	190	1.2	0.8
		7	314222	500982	7.0	POT. NARROW	100	100	3600	340	1.4	0.7
		8	314212	500981	4.0	VALLISNERIA AMER	45	5	3500	2000	0.4	0.1
						POT. NARROW	45					
						POT. CRISPUS	10					
		9	314199	500980	3.0	No Plants Present			4000	500	0.0	0.0
		10	314189	500979	10.0	No Plants Present			4000	410	0.2	0.1
		11	314244	500992	10.0	No Plants Present			4200	530	1.7	1.1
		12	314232	500991	4.0	POT. CRISPUS	100	2500	3500	130	0.0	0.0
		13	314220	500991	3.0	POT. CRISPUS	100	2700	3500	15	0.0	0.0
		14	314264	501004	11.0	No Plants Present			3100	360	2.6	2.0
		15	314252	501000	7.0	No Plants Present			4100	830	1.8	1.6
		16	314241	500999	2.0	POT. CRISPUS	100	80	3600	2100	0.8	0.8
		17	314229	500999	0.5	TYPHA ANGUSTIFOL	100	*	3500	3400	0.2	0.0
		18	314273	501012	10.0	No Plants Present			3600	300	2.4	0.7
		19	314201	501010	6.0	No Plants Present			3000	650	2.1	0.7
		20	314279	501020	8.0	No Plants Present			3500	400	2.5	1.5

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	STAG	1	309034	497381	14.0	No Plants Present			1000	400	2.9	2.7
		2	309019	497380	15.0	No Plants Present			1100	900	2.6	2.4
		3	309042	497382	32.0	No Plants Present			500	200	2.1	2.0
		4	309036	497386	15.0	No Plants Present			1000	600	2.9	2.8
		5	309021	497384	15.0	No Plants Present			1000	700	2.4	2.0
		6	309046	497389	24.0	No Plants Present			400	200	2.8	2.6
		7	309037	497391	14.6	No Plants Present			1000	900	1.9	1.6
		8	309024	497390	6.0	No Plants Present			800	500	2.6	2.4
		9	309056	497396	22.0	No Plants Present			500	100	1.9	1.6
		10	309038	497397	12.2	No Plants Present			900	300	1.9	1.7
		11	309026	497395	3.1	CHARA SPP.	100	*	700	500	1.4	1.1
		12	309053	497395	20.0	No Plants Present			500	200	2.4	2.2
		13	309042	497404	15.0	ELODEA CANADENS	90	20	900	500	0.5	0.5
						POT. NARROW	5					
						NITELLA HYALINA	5					
		14	309037	497405	2.0	POT. CRISPUS	80	3700	4000	90	0.2	0.2
						POT. RICHARDSONI	17					
						ELODEA CANADENS	2					
						NITELLA HYALINA	1					
		15	309070	497404	20.0	No Plants Present			500	200	2.1	2.0
		16	309053	497405	18.0	No Plants Present			650	200	2.3	2.1
		17	309046	497412	15.0	ELODEA CANADENS	60	1150	500	100	0.6	0.5
						POT. RICHARDSONI	35					
						MYRIO. SPICATUM	5					
		18	309041	497411	4.5	CHARA SPP.	85	400	440	2500	0.4	0.3
						POT. CRISPUS	10					
						POT. NARROW	5					
		19	309071	497409	23.0	No Plants Present			500	200	1.9	1.8
		20	309055	497412	15.0	POT. RICHARDSONI	50	20	600	200	0.7	0.5
						CHARA SPP.	50					
		21	309046	497413	3.4	CHARA SPP.	95	140	500	180	0.5	0.4
						POT. RICHARDSONI	4					

				MYRIO. SPICATUM	1						
22	309077	497421	31.0	No Plants Present			600	200	2.6	2.3
23	309070	497420	9.0	POT. NARROW	80	100	550	200	0.9	0.6
				POT. GRAMINEUS	20					
24	309080	497427	33.0	No Plants Present			400	200	3.4	3.1
25	309072	497426	6.0	CHARA SPP.	70	80	440	110	1.2	0.4
				POT. GRAMINEUS	30					
26	309086	497434	34.0	No Plants Present			500	200	3.1	2.8

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1983

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2. (*) indicates < 0.100 g/m2

RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	FAWN	1	309573	498243	12.0	No Plants Present			2000	340	2.4	2.1
		2	309566	498247	12.0	POT. NARROW	100	*	2300	440	1.1	0.5
		3	309580	498253	12.0	CHARA SPP.	100	5	2500	350	2.9	1.8
		4	309568	498253	12.0	POT. NARROW	100	340	2500	1000	1.1	0.3
		5	309592	498250	24.0	No Plants Present			2800	500	1.9	1.1
		6	309584	498259	9.1	ELODEA CANADENS	50	660	2200	450	0.2	0.0
						POT. RICHARDSONI	50					
		7	309573	498259	8.7	POT. GRAMINEUS	95	80	3200	1600	1.0	0.7
						CHARA SPP.	5					
		8	309619	498263	34.0	No Plants Present			3000	500	2.0	1.4
		9	309600	498263	12.0	CHARA SPP.	100	5	2400	900	2.4	2.3
		10	309587	498265	4.5	CHARA SPP.	95	20	2200	700	1.0	0.4
						POT. NARROW	5					
		11	309576	498265	5.1	CHARA SPP.	100	40	3300	2000	0.5	0.2
		12	309623	498271	28.0	No Plants Present			2700	600	2.5	2.2
		13	309602	498270	6.2	POT. GRAMINEUS	90	40	2000	980	1.0	0.5
						CHARA SPP.	10					
		14	309590	498269	3.0	CHARA SPP.	100	10	2200	1800	0.6	0.6
		15	309582	498263	4.0	CHARA SPP.	100	10	2500	2300	0.8	0.3
		16	309643	498284	36.0	No Plants Present			3000	200	3.0	2.4
		17	309622	498280	14.0	No Plants Present			2700	800	2.5	1.8
		18	309606	498278	2.5	CHARA SPP.	100	10	1900	1600	0.5	0.3
		19	309629	498284	33.0	No Plants Present			3000	500	2.5	2.0
		20	309620	498285	5.9	CHARA SPP.	100	10	2500	1100	0.9	0.5

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1983

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2. (*) indicates < 0.100 g/m2

RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	RUSSELL	1	309951	498651	32.0	No Plants Present			2500	120	3.8	1.1
		2	309943	498649	24.0	No Plants Present			2800	180	3.5	2.8
		3	309927	498650	31.0	No Plants Present			2800	260	2.2	1.3
		4	309983	498658	52.0	No Plants Present			3800	150	2.6	1.9
		5	309969	498657	34.0	No Plants Present			3400	280	2.6	2.2
		6	309952	498656	13.0	CHARA SPP.	100	5	3500	1200	3.2	3.1
		7	309944	498655	8.0	POT. GRAMINEUS	75	1100	3400	1400	2.7	2.6
						CHARA SPP.	25					
		8	309929	498654	32.0	No Plants Present			3300	1500	2.7	2.3
		9	309987	498663	40.0	No Plants Present			3300	240	3.3	0.3
		10	309973	498662	11.0	ELODEA CANADENS	90	1020	3400	410	1.6	0.3
						POT. RICHARDSONI	10					
		11	309954	498662	4.0	CHARA SPP.	100	10	3500	1400	2.8	0.2
		12	309943	498662	6.0	CHARA SPP.	50	20	3400	510	2.2	0.6
						POT. GRAMINEUS	50					
		13	309925	498660	33.0	No Plants Present			3700	710	2.0	1.8
		14	309953	498670	5.0	POT. GRAMINEUS	80	550	3400	210	2.0	1.7
						CHARA SPP.	20					

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	BELLE	1	312760	499950	4.0	POT. ZOSTERIFORM	80	180	4500	600	0.6	0.4
						VALLISNERIA AMER	19					
						MYRIO. SPICATUM	1					
		2	312754	499950	12.0	POT. NARROW	100	20	4600	750	2.0	0.3
		3	312766	499959	9.0	VALLISNERIA AMER	50	50	4500	500	0.1	0.1
						POT. NARROW	45					
						CHARA SPP.	5					
		4	312757	499957	24.0	No Plants Present			4700	150	2.5	2.0
		5	312772	499967	15.0	No Plants Present			3200	130	2.6	1.8
		6	312759	499962	30.0	No Plants Present			3300	100	2.8	2.2
		7	312779	499966	2.0	POT. RICHARDSONI	80	1350	4500	3500	0.2	0.2
						POT. NARROW	8					
						POT. CRISPUS	5					
						VALLISNERIA AMER	5					
						CHARA SPP.	2					
		8	312781	499971	18.5	No Plants Present			3000	130	2.6	1.9
		9	312774	499973	35.0	No Plants Present			3000	110	2.7	2.0
		10	312796	499978	3.0	CHARA SPP.	100	10	4600	900	0.2	0.2
		11	312779	499974	35.0	No Plants Present			3100	130	2.8	2.0
		12	312807	499985	10.0	POT. GRAMINEUS	60	70	4900	500	1.2	0.9
						CHARA SPP.	38					
						VALLISNERIA AMER	2					
						NITELLOP. OBTUSA	<1					
						NAJAS FLEXILIS	<1					
		13	312795	499982	34.0	No Plants Present			3300	120	2.3	1.4
		14	312857	499995	2.5	CHARA SPP.	98	60	4300	4000	0.2	0.2
						NITELLOP. OBTUSA	2					
		15	312849	499994	2.0	CHARA SPP.	55	20	4000	3100	0.2	0.2
						NITELLOP. OBTUSA	15					
						VALLISNERIA AMER	15					
						MYRIO. SPICATUM	15					
		16	312839	499993	3.0	CHARA SPP.	90	250	4300	2500	0.3	0.3
						VALLISNERIA AMER	5					
						NITELLOP. OBTUSA	3					
						NAJAS FLEXILIS	2					
						POT. ZOSTERIFORM	<1					

17	312829	499993	1.5	CHARA SPP.	100	110	4600	3600	0.3	0.3
18	312822	499991	12.0	POT. RICHARDSONI	45	440	5000	150	1.1	0.8
				POT. GRAMINEUS	45					
				CHARA SPP.	5					
				VALLISNERIA AMER	5					
				POT. ZOSTERIFORM	<1					
				POT. NARROW	<1					
19	312806	499989	26.0	No Plants Present			3900	120	2.0	1.4
20	312859	500002	26.0	No Plants Present			3400	160	1.6	1.5
21	312851	500000	25.0	No Plants Present			3400	200	1.6	1.6
22	312839	499997	33.0	No Plants Present			3700	200	1.7	1.5
23	312829	499996	32.0	No Plants Present			4300	200	2.1	2.0
24	312823	499996	34.0	No Plants Present			4200	220	2.8	2.5

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	HENNEPIN	1	314072	500666	31.0	No Plants Present			2700	120	0.5	0.5
		2	314059	500666	7.0	VALLISNERIA AMER	70	1040	3800	100	0.1	0.1
						POT. NARROW	30					
		3	314079	500675	33.0	No Plants Present			1200	32	0.6	0.3
		4	314063	500673	8.0	POT. NARROW	90	1210	3800	270	0.3	0.1
						VALLISNERIA AMER	10					
		5	314050	500669	32.0	No Plants Present			3400	130	2.2	2.0
		6	314079	500680	10.0	VALLISNERIA AMER	100	120	5100	830	0.4	0.2
		7	314068	500679	7.0	POT. NARROW	100	1320	4000	240	0.2	0.1
		8	314054	500677	31.0	No Plants Present			4300	150	2.0	1.6
		9	314094	500689	30.0	No Plants Present			3600	110	1.3	0.5
		10	314082	500687	10.0	VALLISNERIA AMER	100	160	4700	270	0.2	0.2
		11	314072	500685	6.0	VALLISNERIA AMER	100	140	4000	230	0.3	0.2
		12	314060	500684	31.0	No Plants Present			1500	50	2.1	1.6
		13	314100	500696	29.0	No Plants Present			4200	9	0.9	0.8
		14	314086	500693	11.0	VALLISNERIA AMER	60	40	1900	800	0.5	0.4
						NITELLOP. OBTUSA	40					
		15	314076	500692	6.5	VALLISNERIA AMER	100	60	4500	400	0.4	0.3
		16	314066	500690	31.0	No Plants Present			4700	170	1.6	1.2
		17	314105	500702	25.0	No Plants Present			4000	100	1.3	0.5
		18	314091	500700	11.0	VALLISNERIA AMER	100	100	5000	1000	0.1	0.1
		19	314081	500699	5.5	VALLISNERIA AMER	75	40	4800	100	0.1	0.1
						CHARA SPP.	25					
		20	314070	500697	30.0	No Plants Present			4600	130	1.6	1.5
		21	314108	500709	27.0	No Plants Present			4200	110	1.1	1.0
		22	314095	500707	11.0	VALLISNERIA AMER	90	40	5100	360	0.6	0.4
						POT. NARROW	10					
		23	314084	500706	5.0	VALLISNERIA AMER	98	180	4000	110	0.3	0.2
						CHARA SPP.	2					

24	314074	500705	30.0	No Plants Present			4000	180	1.9	1.9
25	314112	500715	23.0	No Plants Present			3900	100	1.0	0.8
26	314099	500714	15.0	VALLISNERIA AMER	100	40	4300	100	0.3	0.2
27	314089	500712	6.0	VALLISNERIA AMER	90	20	3900	220	0.4	0.2
				CHARA SPP.	10					
28	314078	500711	31.0	No Plants Present			4800	190	2.0	2.0
29	314114	500721	24.0	No Plants Present			3800	9	1.1	0.4
30	314102	500719	13.0	CHARA SPP.	80	60	4800	320	0.4	0.1
				VALLISNERIA AMER	20					
31	314094	500719	7.0	VALLISNERIA AMER	98	80	3500	150	0.3	0.2
				MYRIO. SPICATUM	2					
32	314082	500719	31.0	No Plants Present			1500	50	2.4	2.0
33	314107	500727	22.0	No Plants Present			3800	9	0.2	0.0
34	314098	500726	7.0	VALLISNERIA AMER	100	240	4000	100	0.2	0.1
35	314087	500726	30.0	No Plants Present			4700	53	2.0	1.8
36	314111	500733	17.0	No Plants Present			3300	110	0.4	0.3
37	314103	500733	8.5	VALLISNERIA AMER	100	200	4000	50	0.5	0.3
38	314093	500733	30.0	No Plants Present			2800	120	2.0	1.6
39	314115	500740	22.0	No Plants Present			3400	110	1.3	1.1
40	314109	500742	15.0	No Plants Present			3800	260	1.5	1.1

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	STONEY	1	314229	500974	9.5	VALLISNERIA AMER	90	180	3500	55	1.5	1.3
						POT. ZOSTERIFORM	10					
		2	314218	500974	8.0	POT. NARROW	90	2000	2100	120	0.9	0.5
						VALLISNERIA AMER	10					
						POT. RICHARDSONI	<1					
		3	314209	500973	7.0	VALLISNERIA AMER	100	620	1700	100	1.4	0.7
		4	314200	500972	9.0	VALLISNERIA AMER	98	80	2500	95	0.5	0.4
						POT. NARROW	2					
		5	314191	500972	9.0	POT. NARROW	85	60	3500	280	0.6	0.3
						ELODEA CANADENS	8					
						POT. CRISPUS	7					
		6	314232	500979	6.0	VALLISNERIA AMER	99	200	3500	70	1.0	0.7
						POT. ZOSTERIFORM	1					
		7	314223	500980	7.0	POT. NARROW	80	1720	4600	350	1.0	0.7
						VALLISNERIA AMER	20					
		8	314209	500979	2.0	No Plants Present			2500	250	1.9	1.4
		9	314200	500977	2.0	VALLISNERIA AMER	90	140	2500	450	1.5	0.8
						HETERANTHERA DUB	10					
		10	314192	500977	10.0	No Plants Present			2300	200	0.3	0.2
		11	314239	500986	7.0	No Plants Present			1200	100	1.2	1.1
		12	314228	500988	3.0	MYRIO. SPICATUM	33	1480	3000	520	0.3	0.2
						ELODEA CANADENS	33					
						HETERANTHERA DUB	33					
		13	314220	500988	3.0	HETERANTHERA DUB	98	680	4500	1500	0.0	0.0
						ELODEA CANADENS	2					
						BUTOMUS UMBELLAT	<1					
		14	314254	500994	11.0	No Plants Present			3500	120	2.6	2.2
		15	314244	500993	5.0	VALLISNERIA AMER	100	340	1400	110	1.6	1.0
		16	314236	500994	3.0	MYRIO. SPICATUM	100	120	4400	2200	0.6	0.6
		17	314229	500994	2.0	HETERANTHERA DUB	100	350	2100	1500	0.4	0.2
		18	314261	501001	11.0	No Plants Present			4100	330	2.7	1.7
		19	314251	501001	3.0	MYRIO. SPICATUM	80	140	3600	1100	1.5	0.5
						HETERANTHERA DUB	10					
						VALLISNERIA AMER	10					

20	314267	501009	11.0	No Plants Present	4000	240	2.5	2.3

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	STAG	1	309030	497375	31.5	No Plants Present			140	110	2.9	2.5
		2	309018	497375	14.0	No Plants Present			140	100	2.9	2.1
		3	309045	497383	35.0	No Plants Present			150	100	2.6	2.2
		4	309031	497380	12.5	No Plants Present			150	100	3.0	2.5
		5	309021	497381	10.0	No Plants Present			130	100	2.4	2.0
		6	309046	497388	34.0	No Plants Present			150	110	2.4	2.3
		7	309034	497385	12.0	No Plants Present			130	100	1.9	1.9
		8	309024	497386	5.5	No Plants Present			120	100	2.3	2.3
		9	309048	497393	32.0	No Plants Present			190	140	2.7	2.5
		10	309038	497392	11.5	No Plants Present			100	70	1.8	1.6
		11	309027	497392	2.0	No Plants Present			100	98	1.0	0.9
		12	309051	497399	16.5	No Plants Present			220	170	1.8	1.7
		13	309039	497398	5.5	CHARA SPP.	75	160	70	50	0.9	0.5
						POT. GRAMINEUS	25					
		14	309033	497398	2.0	CHARA SPP.	70	100	60	59	1.0	0.9
						POT. GRAMINEUS	30					
		15	309063	497404	33.0	No Plants Present			200	170	2.8	2.7
		16	309054	497405	16.0	No Plants Present			220	160	2.1	2.1
		17	309043	497405	11.0	POT. NARROW	80	910	60	10	0.8	0.2
						POT. RICHARDSONI	20					
		18	309036	497404	2.0	CHARA SPP.	100	10	57	56	0.9	0.8
		19	309063	497410	24.0	No Plants Present			200	150	2.0	2.0
		20	309059	497411	14.0	POT. RICHARDSONI	95	170	170	110	0.6	0.4
						VALLISNERIA AMER	5					
		21	309044	497410	3.5	CHARA SPP.	85	260	70	50	0.6	0.5
						POT. GRAMINEUS	10					
						POT. RICHARDSONI	4					
						ELODEA CANADENS	1					
		22	309073	497416	33.0	No Plants Present			270	200	2.8	2.8
		23	309066	497416	16.0	CHARA SPP.	100	20	210	120	1.5	0.6

24	309079	497424	33.0	No Plants Present				290	200	3.2	2.6
25	309069	497421	3.0	CHARA SPP.	100		5	390	350	1.1	1.1
26	309087	497436	34.0	No Plants Present				230	220	3.1	2.8

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	FAWN	1	309576	498257	25.0	No Plants Present			2900	670	2.0	1.9
		2	309566	498246	16.0	POT. NARROW	65	232	3300	730	2.1	1.1
						CHARA SPP.	25					
						ELODEA CANADENS	7					
						POT. RICHARDSONI	3					
		3	309580	498249	22.5	No Plants Present			1800	500	2.5	2.3
		4	309569	498251	12.0	POT. NARROW	100	182	3200	1100	1.5	1.0
		5	309595	498257	24.0	No Plants Present			2100	580	2.8	2.6
		6	309584	498257	8.0	POT. GRAMINEUS	85	4830	1300	36	0.1	0.0
						POT. RICHARDSONI	5					
						POT. NARROW	5					
						CHARA SPP.	5					
		7	309572	498257	7.0	POT. GRAMINEUS	60	722	3500	2400	0.8	0.3
						CHARA SPP.	40					
		8	309609	498263	29.5	No Plants Present			3300	630	1.5	0.5
		9	309599	498262	27.0	No Plants Present			2300	570	2.6	2.1
		10	309587	498262	3.0	CHARA SPP.	100	51	1300	1000	1.0	0.7
		11	309575	498262	4.0	CHARA SPP.	60	82	3600	2500	0.8	0.6
						POT. RICHARDSONI	38					
						ELODEA CANADENS	2					
		12	309612	498269	27.0	No Plants Present			3000	780	2.5	1.9
		13	309601	498267	3.0	CHARA SPP.	90	162	2200	1600	0.5	0.3
						POT. GRAMINEUS	10					
		14	309590	498268	2.5	POT. GRAMINEUS	50	98	1000	900	0.5	0.3
						CHARA SPP.	50					
		15	309580	498268	3.0	CHARA SPP.	100	16	3800	3000	1.0	0.8
		16	309625	498275	39.0	No Plants Present			3500	1100	2.4	2.3
		17	309613	498275	15.0	POT. RICHARDSONI	40	142	2900	520	1.2	0.9
						VALLISNERIA AMER	30					
						NITELLA HYALINA	20					
						NITELLOP. OBTUSA	5					
						ELODEA CANADENS	5					
		18	309606	498276	2.2	CHARA SPP.	69	218	1800	510	0.3	0.0
						POT. GRAMINEUS	30					
						ELODEA CANADENS	1					

19	309626	498279	34.0	No Plants Present			2300	1300	2.3	1.9
20	309619	498282	3.0	POT. RICHARDSONI	85	792	3600	2800	0.7	0.6
				CHARA SPP.	7					
				POT. GRAMINEUS	7					
				NAJAS FLEXILIS	1					

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	RUSSELL	1	309950	498649	27.0	No Plants Present			3500	800	3.1	3.1
		2	309941	498647	18.0	No Plants Present			550	370	2.6	2.3
		3	309930	498646	27.0	No Plants Present			3500	830	1.8	1.5
		4	309973	498651	42.0	No Plants Present			3600	760	2.9	2.8
		5	309961	498654	25.0	No Plants Present			3400	900	2.6	2.2
		6	309952	498654	6.0	POT. NARROW	90	3200	350	150	1.0	0.7
						POT. RICHARDSONI	10					
		7	309945	498653	4.0	POT. GRAMINEUS	50	1000	800	310	1.5	0.8
						POT. NARROW	40					
						CHARA SPP.	10					
		8	309932	498653	33.0	No Plants Present			3500	1000	2.3	2.0
		9	309980	498661	33.0	No Plants Present			3200	700	2.6	2.2
		10	309968	498661	4.0	CHARA SPP.	90	224	3500	2000	0.7	0.5
						POT. GRAMINEUS	10					
		11	309958	498660	3.5	POT. GRAMINEUS	80	85	2000	1900	1.2	0.7
						CHARA SPP.	18					
						NAJAS FLEXILIS	2					
		12	309947	498661	4.0	CHARA SPP.	60	20	2700	1500	0.5	0.4
						POT. GRAMINEUS	40					
		13	309936	498660	40.0	No Plants Present			3500	820	2.1	2.0
		14	309948	498668	34.0	No Plants Present			3400	840	2.4	2.3

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1983

Note: 1. (-) indicates missing data
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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	BELLE	1	312758	499948	7.0	POT. RICHARDSONI	50	4520	4000	280	0.7	0.4
						VALLISNERIA AMER	50					
		2	312752	499947	10.0	No Plants Present			3900	300	1.7	1.1
		3	312763	499955	8.0	No Plants Present			3600	400	2.0	1.5
		4	312755	499955	24.0	No Plants Present			4100	400	1.7	1.0
		5	312770	499961	12.0	No Plants Present			4000	270	2.1	1.4
		6	312758	499963	40.0	No Plants Present			1100	41	2.7	2.6
		7	312777	499963	5.0	POT. RICHARDSONI	80	3540	4000	700	0.3	0.0
						ELODEA CANADENS	10					
						VALLISNERIA AMER	7					
						CHARA SPP.	3					
		8	312784	499970	28.0	No Plants Present			3600	180	1.9	1.8
		9	312774	499971	36.0	No Plants Present			1400	75	3.1	3.0
		10	312794	499975	4.0	POT. RICHARDSONI	50	30	3800	1800	0.6	0.4
						NAJAS FLEXILIS	20					
						POT. NARROW	20					
						VALLISNERIA AMER	5					
						CHARA SPP.	5					
		11	312784	499978	37.0	No Plants Present			610	19	2.6	2.5
		12	312807	499982	11.0	VALLISNERIA AMER	100	50	3400	190	1.9	1.0
		13	312794	499979	33.0	No Plants Present			840	43	2.9	2.6
		14	312856	499992	3.0	CHARA SPP.	80	170	3000	1900	0.1	0.0
						NAJAS FLEXILIS	10					
						NITELLOP. OBTUSA	10					
		15	312847	499990	3.0	NITELLOP. OBTUSA	40	430	3300	2000	0.2	0.2
						CHARA SPP.	40					
						NAJAS FLEXILIS	10					
						MYRIO. SPICATUM	5					
						VALLISNERIA AMER	5					
		16	312837	499989	3.0	NAJAS FLEXILIS	40	450	3300	1300	0.5	0.1
						VALLISNERIA AMER	20					
						CHARA SPP.	20					
						ELODEA CANADENS	10					
						MYRIO. SPICATUM	5					
						NITELLOP. OBTUSA	5					
		17	312826	499989	3.0	CHARA SPP.	50	360	3100	2200	0.3	0.2

				NAJAS FLEXILIS	50					
18	312821	499989	11.0	CHARA SPP.	35	2600	3700	1200	0.3	0.0
				POT. GRAMINEUS	25					
				NAJAS FLEXILIS	15					
				POT. RICHARDSONI	10					
				NITELLOP. OBTUSA	5					
				ELODEA CANADENS	5					
				VALLISNERIA AMER	4					
				POT. CRISPUS	1					
19	312805	499987	35.0	No Plants Present			530	28	2.7	2.5
20	312860	499998	26.5	No Plants Present			1300	16	1.6	1.3
21	312849	499997	26.0	No Plants Present			820	13	1.8	1.7
22	312839	499994	21.0	No Plants Present			3900	48	1.5	1.5
23	312828	499994	34.0	No Plants Present			4300	49	2.3	1.7
24	312821	499992	32.0	No Plants Present			2100	34	1.8	2.0

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	HENNEPIN	1	314069	500667	33.0	No Plants Present			650	55	1.1	1.0
		2	314060	500663	7.0	VALLISNERIA AMER	97	562	3400	650	0.4	0.2
						POT. NARROW	3					
		3	314077	500671	35.5	No Plants Present			700	46	0.9	0.5
		4	314064	500673	6.5	VALLISNERIA AMER	100	268	3100	180	0.2	0.0
		5	314054	500673	36.0	No Plants Present			330	48	1.5	1.5
		6	314081	500678	33.0	No Plants Present			550	48	2.0	1.0
		7	314069	500678	6.0	VALLISNERIA AMER	99	894	3600	870	0.4	0.0
						RANUN. LONGIROST	1					
		8	314058	500679	35.0	No Plants Present			390	65	1.7	1.1
		9	314096	500689	25.0	No Plants Present			250	55	1.6	0.9
		10	314086	500687	7.0	VALLISNERIA AMER	99	352	2100	230	0.4	0.1
						NITELLOP. OBTUSA	1					
		11	314074	500684	6.0	VALLISNERIA AMER	94	275	3100	1200	0.3	0.3
						CHARA SPP.	3					
						ELODEA CANADENS	3					
		12	314063	500686	34.0	No Plants Present			200	55	1.8	1.2
		13	314100	500696	23.0	No Plants Present			180	63	1.7	0.8
		14	314089	500692	6.0	VALLISNERIA AMER	99	386	3200	490	0.1	0.1
						POT. NARROW	1					
		15	314079	500694	8.0	VALLISNERIA AMER	55	196	3000	490	0.2	0.1
						CHARA SPP.	40					
						MYRIO. SPICATUM	4					
						NITELLOP. OBTUSA	1					
		16	314066	500694	27.0	No Plants Present			300	70	1.5	1.0
		17	314104	500703	25.0	No Plants Present			650	50	1.1	0.7
		18	314093	500702	6.0	VALLISNERIA AMER	99	170	3400	880	0.2	0.1
						CHARA SPP.	1					
		19	314083	500701	7.0	VALLISNERIA AMER	60	558	3400	1600	0.3	0.1
						POT. RICHARDSONI	39					
						CHARA SPP.	1					
		20	314073	500702	25.0	No Plants Present			500	48	1.5	1.1

21	314108	500708	22.0	No Plants Present				750	140	0.9	0.8
22	314096	500708	7.0	CHARA SPP.	90		80	3300	630	0.2	0.1
				VALLISNERIA AMER	5						
				POT. NARROW	5						
23	314087	500706	6.0	VALLISNERIA AMER	70		60	3800	1100	0.2	0.0
				MYRIO. SPICATUM	10						
				POT. NARROW	10						
				CHARA SPP.	4						
				POT. NARROW	4						
				ELODEA CANADENS	2						
24	314076	500707	26.0	No Plants Present				1200	55	1.7	1.0
25	314111	500716	23.0	No Plants Present				600	100	0.7	0.6
26	314101	500714	12.0	VALLISNERIA AMER	95		302	3300	480	0.6	0.5
				POT. NARROW	25						
				CHARA SPP.	25						
27	314092	500712	6.0	VALLISNERIA AMER	60		46	2900	850	0.3	0.2
				CHARA SPP.	20						
				MYRIO. SPICATUM	20						
28	314080	500712	32.0	No Plants Present				450	71	2.1	1.1
29	314116	500726	13.0	No Plants Present				1200	75	0.9	0.5
30	314104	500722	25.0	No Plants Present				950	190	0.7	0.3
31	314096	500722	7.0	VALLISNERIA AMER	99		192	2700	590	0.3	0.1
				CHARA SPP.	1						
32	314086	500721	33.0	No Plants Present				480	48	2.3	0.9
33	314111	500729	27.0	No Plants Present				650	250	0.8	0.2
34	314101	500730	7.0	VALLISNERIA AMER	98		988	2700	260	0.2	0.1
				POT. RICHARDSONI	1						
				MYRIO. SPICATUM	1						
35	314092	500730	34.0	No Plants Present				550	45	2.0	1.0
36	314116	500737	27.0	No Plants Present				500	71	1.1	0.7
37	314106	500736	9.0	VALLISNERIA AMER	99		206	3000	240	0.2	0.2
				POT. NARROW	1						
38	314098	500737	33.0	No Plants Present				280	48	2.5	1.5
39	314120	500744	31.0	No Plants Present				1000	68	0.9	0.5
40	314113	500746	20.0	No Plants Present				1600	140	2.0	1.4

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1983

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	STONEY	1	314229	500974	7.0	VALLISNERIA AMER	100	582	1300	33	1.3	0.2
		2	314217	500972	8.0	VALLISNERIA AMER	95	1208	1000	130	0.2	0.1
						POT. NARROW	5					
		3	314208	500974	6.5	VALLISNERIA AMER	95	470	1000	130	0.4	0.1
						MYRIO. SPICATUM	5					
		4	314198	500973	9.0	VALLISNERIA AMER	100	1400	750	44	0.5	0.1
		5	314187	500972	9.0	VALLISNERIA AMER	55	738	480	35	0.5	0.2
						HETERANTHERA DUB	45					
		6	314233	500982	11.5	No Plants Present			1100	720	2.6	1.6
		7	314221	500979	6.0	VALLISNERIA AMER	60	1104	700	180	0.9	0.1
						HETERANTHERA DUB	40					
		8	314210	500978	13.0	VALLISNERIA AMER	50	78	650	34	1.8	0.9
						HETERANTHERA DUB	50					
		9	314200	500978	10.0	MYRIO. SPICATUM	80	80	500	240	0.4	0.2
						HETERANTHERA DUB	20					
		10	314190	500978	10.5	No Plants Present			480	50	0.4	0.0
		11	314237	500986	8.0	VALLISNERIA AMER	100	144	3400	370	1.6	0.4
		12	314227	500982	4.0	VALLISNERIA AMER	50	1214	2000	730	0.3	0.1
						HETERANTHERA DUB	50					
		13	314215	500987	2.0	HETERANTHERA DUB	70	1851	1100	630	0.1	0.0
						ELODEA CANADENS	30					
		14	314253	500995	9.0	No Plants Present			1800	110	2.9	1.4
		15	314242	500995	5.5	HETERANTHERA DUB	60	390	1700	320	0.5	0.1
						VALLISNERIA AMER	40					
		16	314232	500992	2.5	HETERANTHERA DUB	100	8148	320	1	0.0	0.0
		17	314219	500989	3.0	ELODEA CANADENS	65	568	1000	260	0.1	0.1
						MYRIO. SPICATUM	35					
		18	314257	500003	6.0	No Plants Present			1100	530	2.4	1.7
		19	314249	501002	2.0	HETERANTHERA DUB	75	74	2800	-0.	0.5	0.0
						VALLISNERIA AMER	25					
		20	314259	501008	5.0	VALLISNERIA AMER	100	20	840	280	2.2	2.0

Submersed Macrophyte Grapnel Data, JUNE, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	STAG	1	309032	497377	31.5	No Plants Present			1200	650	3.0	2.8
		2	309019	497378	12.0	No Plants Present			830	530	2.9	2.7
		3	309043	497387	34.0	No Plants Present			2100	1500	3.2	2.8
		4	309034	497385	13.5	No Plants Present			1100	690	3.1	2.9
		5	309022	497382	10.5	No Plants Present			510	340	3.2	2.9
		6	309044	497392	32.0	No Plants Present			2700	1200	3.0	2.9
		7	309036	497389	13.5	No Plants Present			1100	550	3.0	3.0
		8	309025	497388	5.5	No Plants Present			600	320	2.7	2.1
		9	309046	497397	14.5	No Plants Present			2200	1300	2.7	2.7
		10	309038	497396	13.5	No Plants Present			820	580	2.8	2.8
		11	309026	497393	3.0	No Plants Present			540	430	2.0	1.9
		12	309050	497402	15.5	No Plants Present			2200	1300	2.6	2.6
		13	309041	497403	7.5	POT. NARROW	100	140	1000	550	2.5	1.9
		14	309032	497401	3.0	POT. NARROW	100	1	2000	1500	0.0	0.0
		15	309058	497407	22.0	No Plants Present			2500	1400	3.0	2.9
		16	309053	497408	14.5	POT. NARROW	80	110	2100	1100	2.3	2.0
						POT. GRAMINEUS	20					
		17	309042	497408	18.0	POT. NARROW	95	30	730	490	1.4	1.2
						ELODEA CANADENS	5					
		18	309038	497409	2.0	CHARA SPP.	100	1	3500	2700	0.0	0.0
		19	309062	497413	23.0	No Plants Present			2700	1200	2.8	2.6
		20	309057	497413	12.0	NITELLA HYALINA	65	208	1900	750	1.9	1.8
						POT. NARROW	34					
						ELODEA CANADENS	1					
		21	309046	497413	4.0	CHARA SPP.	95	20	660	430	0.4	0.4
						ELODEA CANADENS	5					
		22	309073	497418	33.0	No Plants Present			2700	1200	3.8	3.6
		23	309064	497419	11.5	CHARA SPP.	100	5	2900	1300	2.4	2.3
		24	309077	497424	32.0	No Plants Present			2600	1400	3.7	3.4

25	309070	497424	4.5	No Plants Present	1800	960	2.7	1.9
26	309084	497433	34.0	No Plants Present	1800	1500	4.0	3.8

Submersed Macrophyte Grapnel Data, JUNE, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	FAWN	1	309572	498246	19.0	CHARA SPP.	100	10	1700	780	2.4	2.2
		2	309565	498250	15.0	POT. NARROW	100	10	820	520	2.6	2.3
		3	309576	498255	10.0	POT. NARROW	90	10	3400	1200	2.2	0.8
						CHARA SPP.	10					
		4	309569	498254	11.0	POT. GRAMINEUS	80	5	1600	910	2.8	2.3
						CHARA SPP.	20					
		5	309595	498264	26.0	No Plants Present			2800	1000	2.4	2.3
		6	309582	498262	5.0	CHARA SPP.	98	5	3500	2400	1.8	1.4
						POT. GRAMINEUS	2					
		7	309573	498259	7.0	POT. NARROW	100	5	1400	700	2.9	1.8
		8	309601	498265	28.0	No Plants Present			2900	1800	3.0	2.4
		9	309595	498267	20.0	CHARA SPP.	100	2	3700	1600	1.8	1.5
		10	309585	498266	3.0	CHARA SPP.	100	1	2500	2000	1.6	1.3
		11	309576	498264	4.0	CHARA SPP.	100	1	1700	1200	2.4	1.6
		12	309608	498272	29.0	No Plants Present			3000	1600	2.9	2.5
		13	309598	498272	3.0	CHARA SPP.	100	1	3100	2600	1.7	1.1
		14	309590	498272	2.5	CHARA SPP.	90	7	2400	1600	1.5	1.0
						POT. GRAMINEUS	10					
		15	309578	498272	3.0	CHARA SPP.	100	1	1500	1100	2.6	1.8
		16	309620	498274	33.0	No Plants Present			5100	1000	2.8	2.2
		17	309613	498276	15.0	POT. GRAMINEUS	100	2	3900	2600	1.4	1.0
		18	309607	498280	3.0	CHARA SPP.	100	30	3800	1500	0.9	0.8
		19	309630	498284	32.0	No Plants Present			3900	1500	2.8	2.2
		20	309620	498286	3.0	CHARA SPP.	100	10	3900	1500	0.9	0.5

Submersed Macrophyte Grapnel Data, JUNE, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	RUSSELL	1	309954	498651	30.0	No Plants Present			2500	1200	2.8	2.6
		2	309942	498647	27.0	No Plants Present			3200	1400	2.5	2.5
		3	309932	498642	17.0	POT. NARROW	100	1	3200	1600	2.7	2.5
		4	309980	498658	43.0	No Plants Present			3500	1900	3.1	2.9
		5	309972	498658	37.0	No Plants Present			3400	1900	2.8	2.7
		6	309954	498656	12.5	No Plants Present			2900	1000	2.7	1.5
		7	309945	498654	9.0	POT. GRAMINEUS	100	5	4200	1400	2.7	2.2
		8	309933	498655	33.0	No Plants Present			2800	1700	2.5	2.5
		9	309980	498661	34.0	No Plants Present			3200	1800	3.6	3.4
		10	309970	498662	7.0	POT. NARROW	70	15	3200	1000	2.2	1.5
						CHARA SPP.	30					
		11	309957	498661	3.5	CHARA SPP.	100	1	4300	2400	2.4	1.5
		12	309946	498661	4.5	CHARA SPP.	100	5	2400	2000	2.0	1.5
		13	309936	498662	37.0	No Plants Present			2900	1600	2.5	2.2
		14	309949	498670	35.0	No Plants Present			2900	1800	2.7	2.7

Submersed Macrophyte Grapnel Data, JUNE, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	BELLE	1	312759	499951	11.5	POT. NARROW	60	3	1800	480	0.3	0.2
						POT. CRISPUS	40					
		2	312754	499954	12.5	No Plants Present			4500	480	1.7	1.4
		3	312767	499960	8.0	POT. CRISPUS	100	3	1100	120	0.2	0.1
		4	312758	499962	23.0	No Plants Present			4500	74	2.6	1.6
		5	312772	499966	17.5	No Plants Present			3800	180	2.6	1.7
		6	312763	499967	33.0	No Plants Present			4200	18	2.5	1.9
		7	312780	499966	8.5	POT. CRISPUS	100	78	4100	1400	0.1	0.1
		8	312783	499973	26.5	No Plants Present			3500	11	2.1	1.5
		9	312772	499971	34.0	No Plants Present			2500	15	2.9	1.8
		10	312796	499978	8.0	POT. RICHARDSONI	100	1	3800	2900	0.1	0.0
		11	312786	499978	37.5	No Plants Present			2600	15	2.8	2.4
		12	312809	499984	11.0	CHARA SPP.	100	1	3800	230	1.5	1.3
		13	312795	500983	30.0	No Plants Present			1100	25	3.1	2.3
		14	312858	499994	3.5	CHARA SPP.	100	8	1300	1100	0.1	0.0
		15	312848	499991	3.5	CHARA SPP.	65	22	4100	2200	0.1	0.0
						MYRIO. SPICATUM	35					
		16	312838	499993	4.0	CHARA SPP.	96	80	1100	560	0.2	0.1
						MYRIO. SPICATUM	2					
						ELODEA CANADENS	1					
						VALLISNERIA AMER	1					
		17	312827	499990	3.5	CHARA SPP.	95	50	1200	820	0.1	0.1
						MYRIO. SPICATUM	5					
		18	312816	499989	12.5	CHARA SPP.	60	4	3500	410	0.5	0.0
						POT. NARROW	40					
		19	312812	500994	38.0	No Plants Present			460	4	2.7	2.5
		20	312859	500001	19.0	No Plants Present			3700	230	0.7	0.1
		21	312848	500000	18.5	No Plants Present			3600	280	1.1	1.0
		22	312840	499998	18.0	No Plants Present			3500	64	1.1	0.9
		23	312827	499995	30.0	No Plants Present			1500	35	1.6	1.1

24	312818	500995	35.0	No Plants Present	3000	20	3.0	2.0

Submersed Macrophyte Grapnel Data, JUNE, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	HENNEPIN	1	314073	500668	34.0	No Plants Present			3600	8	0.7	0.6
		2	314063	500667	6.5	POT. NARROW	100	178	4500	800	0.5	0.1
		3	314077	500676	34.5	No Plants Present			3400	6	1.0	0.8
		4	314067	500675	7.0	POT. NARROW	100	180	4300	400	0.3	0.2
		5	314058	500671	13.0	POT. RICHARDSONI	100	170	2600	330	1.4	0.9
		6	314081	500682	15.0	POT. NARROW	90	59	3500	610	0.6	0.4
						NITELLA HYALINA	10					
		7	314071	500683	7.0	POT. NARROW	100	150	3900	470	0.4	0.2
		8	314061	500678	12.0	No Plants Present			3500	450	1.8	0.8
		9	314094	500691	32.5	No Plants Present			3700	5	1.1	1.1
		10	314086	500690	7.0	CHARA SPP.	45	120	3200	1400	0.1	0.0
						POT. NARROW	45					
						VALLISNERIA AMER	10					
		11	314074	500688	7.0	CHARA SPP.	70	150	3700	1400	0.4	0.1
						POT. NARROW	30					
		12	314064	500686	11.5	POT. RICHARDSONI	100	280	1200	150	2.1	1.7
		13	314100	500698	28.0	No Plants Present			4000	10	0.9	0.8
		14	314089	500696	7.0	POT. NARROW	60	320	3000	820	0.2	0.0
						CHARA SPP.	40					
		15	314078	500694	6.5	CHARA SPP.	80	70	3500	1100	0.5	0.3
						POT. NARROW	15					
						POT. CRISPUS	5					
		16	314069	500693	8.0	POT. NARROW	100	20	3800	1100	1.2	0.4
		17	314105	500704	27.5	No Plants Present			4300	25	0.6	0.6
		18	314094	500703	7.0	CHARA SPP.	95	110	3300	1100	0.4	0.2
						POT. NARROW	5					
		19	314083	500703	7.0	POT. NARROW	50	30	3200	1500	0.2	0.1
						CHARA SPP.	50					
		20	314073	500700	35.0	No Plants Present			4100	12	1.5	1.0
		21	314107	500709	27.5	No Plants Present			4100	11	1.0	0.6
		22	314098	500711	7.0	CHARA SPP.	95	160	3000	730	0.3	0.0

				POT. NARROW	5						
23	314087	500710	7.5	POT. NARROW	95	170	2200	870	0.5	0.0
				CHARA SPP.	5						
24	314078	500709	30.0	No Plants Present			3900	81	1.2	0.5
25	314111	500717	28.0	No Plants Present			3900	8	1.3	0.8
26	314103	500718	9.5	POT. NARROW	50	20	2800	340	0.5	0.1
				CHARA SPP.	45					
				VALLISNERIA AMER	5					
27	314091	500716	7.0	POT. NARROW	100	300	2500	250	0.2	0.1
28	314083	500716	34.5	No Plants Present			3900	10	2.2	1.6
29	314117	500729	21.0	No Plants Present			3500	390	1.1	0.3
30	314107	500728	27.0	No Plants Present			3200	4	0.7	0.6
31	314095	500726	7.0	CHARA SPP.	70	420	4100	1100	0.2	0.1
				POT. NARROW	30					
32	314086	500725	34.0	No Plants Present			3800	14	1.9	1.3
33	314112	500734	32.0	No Plants Present			2900	4	1.2	1.0
34	314101	500734	10.5	POT. GRAMINEUS	25	5	3500	300	1.4	0.1
				POT. CRISPUS	25					
				VALLISNERIA AMER	25					
				POT. NARROW	25					
35	314092	500732	34.0	No Plants Present			4100	11	2.1	1.5
36	314117	500742	32.0	No Plants Present			2800	4	1.3	0.6
37	314103	500740	35.5	No Plants Present			4500	8	1.6	1.5
38	314097	500738	34.0	No Plants Present			4400	10	2.1	1.5
39	314119	500748	38.0	No Plants Present			2600	17	1.2	0.9
40	314107	500743	36.5	No Plants Present			4100	9	2.3	1.4

Submersed Macrophyte Grapnel Data, JUNE, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	STONEY	1	314231	501975	10.0	POT. NARROW	90	8	2700	53	1.2	1.1
						MYRIO. EXALBESC	10					
		2	314220	501973	10.0	POT. NARROW	50	4	2400	55	1.3	1.0
						VALLISNERIA AMER	50					
		3	314208	501974	8.0	POT. NARROW	45	88	590	40	1.0	0.6
						POT. CRISPUS	45					
						VALLISNERIA AMER	10					
		4	314199	501972	10.0	VALLISNERIA AMER	25	104	2700	53	0.7	0.2
						MYRIO. SPICATUM	25					
						POT. NARROW	25					
						ELODEA CANADENS	25					
		5	314188	501972	9.0	POT. NARROW	70	99	640	100	0.7	0.4
						MYRIO. SPICATUM	30					
		6	314235	501980	11.0	No Plants Present			4400	5	1.5	0.9
		7	314222	501981	8.0	POT. NARROW	100	840	4300	17	1.0	0.7
		8	314212	501980	9.0	No Plants Present			2300	260	1.4	1.0
		9	314201	501978	13.0	POT. CRISPUS	60	5	2600	65	0.3	0.2
						MYRIO. SPICATUM	35					
						POT. NARROW	5					
		10	314191	501980	11.0	POT. CRISPUS	100	1	460	10	0.6	0.4
		11	314238	501985	9.5	No Plants Present			820	28	1.2	0.8
		12	314226	501988	5.0	POT. CRISPUS	95	922	5000	380	0.3	0.0
						MYRIO. SPICATUM	4					
						ELODEA CANADENS	1					
		13	314213	501989	4.0	POT. CRISPUS	90	3696	3800	53	0.0	0.0
						ELODEA CANADENS	10					
		14	314252	501996	11.5	No Plants Present			2600	29	2.4	0.7
		15	314242	501992	7.5	No Plants Present			630	65	2.1	1.1
		16	314232	501995	3.0	POT. CRISPUS	100	3698	480	110	0.1	0.0
		17	314217	501940	3.5	ELODEA CANADENS	95	2712	4100	1500	0.2	0.0
						POT. CRISPUS	5					
		18	314256	501000	8.0	No Plants Present			2600	240	2.2	2.0
		19	314250	501005	2.5	VALLISNERIA AMER	100	1	4200	2800	1.8	1.3

20	314260	501010	6.0	HETERANTHERA DUB	100	2	600	220	3.1	1.8

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	STAG	1	309032	497377	31.0	No Plants Present			760	150	3.0	2.8
		2	309019	497377	15.0	No Plants Present			3300	1000	3.1	2.9
		3	309040	497383	34.5	No Plants Present			550	90	3.0	2.9
		4	309032	497383	13.5	No Plants Present			750	230	2.7	2.2
		5	309021	497382	12.0	No Plants Present			3500	1400	2.9	2.6
		6	309045	497389	32.0	No Plants Present			410	79	2.9	2.9
		7	309035	497387	12.5	No Plants Present			3000	1000	3.0	2.3
		8	309024	497387	7.0	No Plants Present			3400	2000	2.8	2.0
		9	309050	497394	32.0	No Plants Present			500	90	3.0	3.0
		10	309038	497394	12.0	No Plants Present			640	260	2.7	2.0
		11	309027	497394	4.0	No Plants Present			1000	840	1.7	1.5
		12	309052	497401	18.5	CHARA SPP.	100	1	500	85	2.9	2.7
		13	309040	497402	6.0	POT. GRAMINEUS	60	50	680	520	1.4	0.5
						CHARA SPP.	40					
		14	309034	497404	4.0	POT. GRAMINEUS	80	104	640	550	0.1	0.1
						ZANN. PALUSTRIS	10					
						CHARA SPP.	10					
		15	309059	497405	31.5	No Plants Present			440	100	3.3	2.8
		16	309053	497407	17.5	No Plants Present			730	180	2.8	2.1
		17	309043	497410	15.5	POT. NARROW	50	128	1000	170	0.8	0.3
						POT. RICHARDSONI	45					
						NITELLA HYALINA	5					
		18	309038	497407	3.0	POT. RICHARDSONI	90	10	650	540	0.1	0.1
						CHARA SPP.	5					
						POT. ZOSTERIFORM	5					
		19	309063	497412	22.0	No Plants Present			380	80	2.8	2.1
		20	309056	497412	10.0	POT. RICHARDSONI	99	110	380	220	1.3	0.7
						CHARA SPP.	1					
		21	309045	497413	4.0	CHARA SPP.	55	110	600	500	0.6	0.4
						POT. GRAMINEUS	40					
						VALLISNERIA AMER	5					

22	309074	497417	32.5	No Plants Present			740	120	3.3	3.0
23	309065	497416	12.5	POT. NARROW	90	118	420	130	1.5	0.9
				POT. GRAMINEUS	10					
24	309078	497424	32.0	No Plants Present			650	140	3.7	3.0
25	309070	497427	4.0	CHARA SPP.	100	1	430	370	1.5	0.9
26	309085	497432	31.5	No Plants Present			440	100	3.8	3.5

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	FAWN	1	309569	498245	22.0	CHARA SPP.	100	2	4700	750	2.6	1.9
		2	309564	498247	18.0	POT. NARROW	95	140	1100	300	2.5	2.0
						POT. GRAMINEUS	5					
		3	309578	498252	19.0	CHARA SPP.	100	1	4200	670	2.4	1.9
		4	309567	498250	10.0	POT. GRAMINEUS	90	90	1300	720	2.2	1.0
						POT. NARROW	10					
		5	309593	498257	21.0	No Plants Present			5000	420	0.7	0.3
		6	309581	498257	7.0	POT. GRAMINEUS	85	160	3700	1700	1.7	1.1
						CHARA SPP.	15					
		7	309570	498258	8.0	POT. GRAMINEUS	98	102	4500	650	2.5	0.5
						CHARA SPP.	2					
		8	309606	498261	25.0	No Plants Present			2200	100	2.2	1.4
		9	309598	498262	25.0	CHARA SPP.	100	2	4500	290	3.0	2.4
		10	309585	498264	4.0	CHARA SPP.	100	14	3400	2900	1.7	1.3
		11	309575	498263	5.0	CHARA SPP.	100	20	1000	570	1.7	1.1
		12	309612	498271	26.0	No Plants Present			3500	210	3.1	2.6
		13	309601	498271	3.0	POT. GRAMINEUS	50	32	2700	2500	1.2	0.9
						CHARA SPP.	50					
		14	309590	498270	3.0	POT. GRAMINEUS	50	40	2000	1500	0.8	0.5
						CHARA SPP.	50					
		15	309579	498271	4.0	CHARA SPP.	100	8	1000	880	1.6	1.2
		16	309619	498273	29.5	No Plants Present			2500	150	3.5	2.9
		17	309611	498276	10.0	POT. NARROW	47	26	3500	100	1.0	0.4
						POT. GRAMINEUS	47					
						CHARA SPP.	6					
		18	309606	498277	3.0	CHARA SPP.	80	20	2500	2000	0.8	0.7
						POT. GRAMINEUS	20					
		19	309626	498284	29.0	No Plants Present			2000	77	3.6	2.9
		20	309619	498285	3.0	POT. GRAMINEUS	80	130	1200	900	0.8	0.5
						CHARA SPP.	20					

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	RUSSELL	1	309951	498650	30.5	No Plants Present			3500	210	2.7	2.4
		2	309939	498650	15.0	POT. NARROW	97	140	3800	800	2.6	1.1
						POT. GRAMINEUS	2					
						CHARA SPP.	1					
		3	309928	498649	30.0	No Plants Present			3500	320	2.5	2.0
		4	309974	498653	39.0	No Plants Present			3300	140	3.3	2.8
		5	309967	498659	32.0	No Plants Present			3400	120	3.4	2.9
		6	309954	498655	11.0	POT. NARROW	100	460	4000	900	2.6	1.4
		7	309943	498655	8.0	POT. GRAMINEUS	94	230	4300	1800	1.5	0.8
						CHARA SPP.	6					
		8	309931	498657	35.0	No Plants Present			3500	320	2.3	1.9
		9	309977	498664	27.0	No Plants Present			3000	140	1.5	1.2
		10	309969	498666	4.5	POT. GRAMINEUS	75	88	3800	2000	1.2	0.6
						CHARA SPP.	25					
		11	309958	498662	4.0	CHARA SPP.	70	14	4100	2500	1.3	0.7
						POT. GRAMINEUS	30					
		12	309949	498664	5.5	CHARA SPP.	100	2	4200	2300	1.9	1.4
		13	309937	498662	36.0	No Plants Present			3600	320	2.8	2.2
		14	309952	498670	7.0	CHARA SPP.	100	5	4300	1500	1.7	1.0

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1984

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DETROIT	BELLE	1	312760	449952	11.0	VALLISNERIA AMER	100	10	3600	300	1.1	0.3
		2	312753	499950	12.0	No Plants Present			3500	290	1.8	1.2
		3	312766	499959	6.0	VALLISNERIA AMER	40	46	3100	1600	0.4	0.2
						POT. ZOSTERIFORM	25					
						POT. CRISPUS	25					
						POT. RICHARDSONI	10					
		4	312757	499959	26.5	No Plants Present			3300	16	2.5	1.4
		5	312773	499968	13.0	No Plants Present			3400	100	2.9	2.0
		6	312759	499967	39.0	No Plants Present			3400	8	2.6	2.6
		7	312780	499967	7.5	VALLISNERIA AMER	60	30	2500	1100	0.1	0.1
						POT. NARROW	25					
						POT. CRISPUS	15					
		8	312782	499971	18.0	No Plants Present			2800	28	2.3	1.5
		9	312775	499973	33.5	No Plants Present			3200	27	3.0	2.7
		10	312796	499978	6.5	POT. RICHARDSONI	40	118	2800	410	0.4	0.2
						POT. NARROW	30					
						CHARA SPP.	24					
						VALLISNERIA AMER	5					
						POT. ZOSTERIFORM	1					
		11	312784	499970	35.0	No Plants Present			3300	28	2.9	2.7
		12	312807	499985	8.0	POT. RICHARDSONI	95	155	4600	350	1.5	1.4
						VALLISNERIA AMER	3					
						MYRIO. SPICATUM	1					
						POT. ZOSTERIFORM	1					
		13	312795	499980	34.5	No Plants Present			3300	37	3.0	2.8
		14	312859	499995	4.0	CHARA SPP.	85	68	4400	2600	0.1	0.1
						VALLISNERIA AMER	10					
						NAJAS FLEXILIS	5					
		15	312847	499994	3.5	CHARA SPP.	84	200	4200	2000	0.1	0.0
						MYRIO. SPICATUM	10					
						VALLISNERIA AMER	3					
						NAJAS FLEXILIS	2					
						NITELLOP. OBTUSA	1					
		16	312838	499993	4.0	CHARA SPP.	87	372	4600	1600	0.3	0.2
						NITELLOP. OBTUSA	3					
						VALLISNERIA AMER	2					
						NAJAS FLEXILIS	2					

				POT. NARROW	2					
				MYRIO. SPICATUM	2					
				POT. GRAMINEUS	2					
17	312828	499991	4.6	CHARA SPP.	90	154	4300	2800	0.2	0.2
				NITELLOP. OBTUSA	4					
				NAJAS FLEXILIS	4					
				VALLISNERIA AMER	2					
18	312817	499988	7.5	CHARA SPP.	55	*	2300	230	0.6	0.5
				POT. NARROW	20					
				CHARA SPP.	10					
				POT. RICHARDSONI	6					
				POT. ZOSTERIFORM	5					
				NAJAS FLEXILIS	2					
				NITELLA HYALINA	2					
19	312809	499992	32.0	No Plants Present			3500	13	3.1	2.4
20	312860	499000	20.5	No Plants Present			4100	14	1.3	1.3
21	312851	499000	19.5	No Plants Present			4600	20	1.1	1.0
22	312840	499998	22.5	No Plants Present			4200	17	1.7	1.2
23	312829	499994	27.5	No Plants Present			3500	11	2.1	2.1
24	312818	499994	34.0	No Plants Present			3500	32	3.2	2.7

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1984

Note: 1. (-) indicates missing data
2. (*) indicates < 0.100 g/m2

RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	HENNEPIN	1	314073	500665	33.0	No Plants Present			700	4	1.4	1.1
		2	314063	500666	3.6	POT. NARROW	80	2625	1300	360	0.2	0.1
						VALLISNERIA AMER	20					
		3	314075	500671	34.5	No Plants Present			780	3	1.2	0.8
		4	314067	500673	4.0	POT. NARROW	75	3390	1300	91	0.3	0.1
						VALLISNERIA AMER	20					
						POT. CRISPUS	5					
		5	314057	500671	13.0	VALLISNERIA AMER	100	38	530	18	1.2	1.1
		6	314079	500679	22.0	No Plants Present			900	4	0.6	0.3
		7	314070	500680	4.2	POT. NARROW	50	2800	1500	35	0.3	0.1
						VALLISNERIA AMER	50					
		8	314060	500679	12.0	VALLISNERIA AMER	100	8	800	42	2.0	1.7
		9	314093	500690	30.5	No Plants Present			1100	3	0.7	0.3
		10	314083	500686	3.9	VALLISNERIA AMER	100	100	1800	220	0.2	0.1
		11	314075	500688	4.5	POT. NARROW	45	2540	1700	150	0.3	0.1
						CHARA SPP.	45					
						VALLISNERIA AMER	9					
						ELODEA CANADENS	1					
		12	314064	500684	8.0	POT. RICHARDSONI	65	348	800	120	1.8	0.2
						VALLISNERIA AMER	34					
						POT. ZOSTERIFORM	1					
		13	314096	500693	32.0	No Plants Present			1200	5	1.3	0.9
		14	314087	500693	5.1	VALLISNERIA AMER	100	130	1900	360	0.3	0.0
		15	314079	500695	4.0	CHARA SPP.	90	490	1200	260	0.2	0.2
						VALLISNERIA AMER	10					
		16	314068	500693	8.0	POT. ZOSTERIFORM	66	408	470	120	0.2	0.1
						VALLISNERIA AMER	30					
						CHARA SPP.	2					
						POT. GRAMINEUS	2					
		17	314101	500700	30.5	No Plants Present			1000	4	1.3	1.1
		18	314091	500700	5.0	VALLISNERIA AMER	95	75	1900	310	0.2	0.2
						MYRIO. SPICATUM	5					
		19	314081	500697	4.5	CHARA SPP.	70	138	1300	150	0.3	0.3
						VALLISNERIA AMER	30					

20	314071	500700	8.0	No Plants Present			310	44	0.3	0.1
21	314105	500710	30.0	No Plants Present			1300	5	1.4	1.1
22	314095	500706	7.1	CHARA SPP.	70	*	2400	550	0.3	0.1
				POT. RICHARDSONI	25					
				VALLISNERIA AMER	5					
23	314086	500708	4.9	VALLISNERIA AMER	50	676	1300	260	0.3	0.2
				CHARA SPP.	45					
				MYRIO. SPICATUM	5					
24	314080	500709	7.5	POT. RICHARDSONI	60	70	460	120	0.2	0.1
				VALLISNERIA AMER	38					
				NAJAS FLEXILIS	1					
				POT. ZOSTERIFORM	1					
25	314108	500716	29.5	No Plants Present			2400	10	1.5	0.7
26	314099	500712	6.9	VALLISNERIA AMER	100	110	2800	730	0.2	0.1
27	314089	500714	4.7	VALLISNERIA AMER	45	550	1100	170	0.1	0.1
				CHARA SPP.	40					
				MYRIO. SPICATUM	10					
				NAJAS FLEXILIS	5					
28	314080	500712	31.5	No Plants Present			570	4	1.7	1.4
29	314112	500722	26.5	No Plants Present			2200	6	0.6	0.5
30	314103	500721	10.1	CHARA SPP.	50	10	2400	46	0.4	0.2
				VALLISNERIA AMER	40					
				POT. NARROW	10					
31	314093	500719	4.8	VALLISNERIA AMER	100	110	1100	230	0.3	0.2
32	314082	500719	34.5	No Plants Present			500	5	2.3	1.8
33	314106	500727	21.0	No Plants Present			1900	5	0.5	0.4
34	314097	500727	5.3	VALLISNERIA AMER	70	396	1400	120	0.2	0.0
				CHARA SPP.	25					
				POT. CRISPUS	5					
35	314085	500722	32.0	No Plants Present			460	6	2.5	2.3
36	314111	500736	31.0	No Plants Present			2000	2	0.9	0.2
37	314102	500734	8.1	POT. RICHARDSONI	100	1674	760	86	0.6	0.2
38	314089	500733	33.0	No Plants Present			430	5	2.6	2.2
39	314114	500741	23.5	No Plants Present			1600	3	1.0	0.6
40	314105	500741	33.0	No Plants Present			350	3	2.1	1.9

Submersed Macrophyte Grapnel Data, JULY - AUGUST, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	STONEY	1	314230	501976	9.0	VALLISNERIA AMER	100	110	2800	260	1.6	0.5
		2	314218	501976	5.0	POT. NARROW	70	430	2300	210	0.7	0.2
						VALLISNERIA AMER	30					
		3	314209	501974	8.0	VALLISNERIA AMER	50	190	3300	730	0.6	0.3
						POT. NARROW	35					
						POT. ZOSTERIFORM	15					
		4	314216	501974	11.0	VALLISNERIA AMER	100	188	3600	630	0.6	0.1
		5	314286	501973	9.0	POT. RICHARDSONI	70	430	3600	470	0.5	0.1
						VALLISNERIA AMER	30					
		6	314235	501983	14.0	POT. ZOSTERIFORM	100	5	2900	150	2.3	1.0
		7	314221	500982	7.5	POT. NARROW	50	530	2800	250	1.0	0.2
						VALLISNERIA AMER	50					
		8	314212	500980	12.5	No Plants Present			2200	250	1.2	1.2
		9	314200	500980	9.5	No Plants Present			2700	1900	0.1	0.0
		10	314191	500979	10.5	No Plants Present			3000	160	0.5	0.1
		11	314238	501989	9.5	VALLISNERIA AMER	80	12	3000	840	1.0	0.5
						POT. NARROW	20					
		12	314228	501989	3.0	ELODEA CANADENS	40	864	2000	1500	0.1	0.0
						VALLISNERIA AMER	30					
						MYRIO. SPICATUM	20					
						HETERANTHERA DUB	7					
						POT. CRISPUS	3					
		13	314217	501987	3.0	ELODEA CANADENS	99	1920	2500	1100	0.0	0.0
						VALLISNERIA AMER	1					
		14	314254	501996	10.5	No Plants Present			2700	260	2.4	1.6
		15	314243	501997	6.5	VALLISNERIA AMER	45	98	3000	700	1.5	0.7
						POT. NARROW	25					
						POT. CRISPUS	25					
						BUTOMUS UMBELLAT	5					
		16	314233	501996	3.0	HETERANTHERA DUB	100	200	3000	2000	0.1	0.0
		17	314222	501995	2.5	RANUN. LONGIROST	50	1120	2700	1600	0.1	0.1
						HETERANTHERA DUB	30					
						ELODEA CANADENS	20					
		18	314258	501004	7.0	No Plants Present			2200	710	1.7	0.9

19	314249	501105	4.0	VALLISNERIA AMER	100	28	3700	1200	0.7	0.6
20	314259	501009	3.0	POT. CRISPUS	60	38	1200	440	1.5	1.0
				VALLISNERIA AMER	40					

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	STAG	1	309030	497378	30.5	No Plants Present			3500	600	3.0	2.5
		2	309018	497371	15.5	No Plants Present			2000	350	2.9	2.4
		3	309041	497381	35.5	No Plants Present			3000	320	2.7	2.4
		4	309032	497384	14.0	CHARA SPP.	100	1	4300	1100	2.7	2.4
		5	309022	497382	12.0	No Plants Present			3800	1300	3.0	2.3
		6	309045	497390	32.5	No Plants Present			3800	520	2.9	2.3
		7	309034	497388	13.0	No Plants Present			4500	1100	2.5	1.6
		8	309024	497386	7.0	No Plants Present			3400	1300	2.3	2.0
		9	309047	497395	31.5	No Plants Present			3600	580	2.4	2.3
		10	309037	497394	12.0	No Plants Present			3700	1200	2.2	1.7
		11	309028	497395	3.5	No Plants Present			4000	3500	1.6	1.5
		12	309049	497399	14.5	No Plants Present			3000	590	2.1	1.6
		13	309039	497399	6.0	POT. RICHARDSONI	45	1830	4000	2500	0.5	0.3
						POT. GRAMINEUS	45					
						POT. NARROW	5					
						CHARA SPP.	4					
						ELODEA CANADENS	1					
		14	309033	497401	3.0	CHARA SPP.	80	100	4300	3500	1.4	1.0
						POT. GRAMINEUS	20					
		15	309061	497406	31.0	No Plants Present			500	47	2.6	1.6
		16	309053	497407	19.0	No Plants Present			3200	580	2.6	1.4
		17	309043	497407	20.0	NITELLA HYALINA	35	360	4000	300	1.0	0.2
						POT. NARROW	35					
						POT. RICHARDSONI	25					
						ELODEA CANADENS	5					
		18	309036	497406	3.0	CHARA SPP.	100	20	4000	3200	0.4	0.4
		19	309065	497412	24.0	No Plants Present			230	60	2.2	1.7
		20	309057	497411	12.0	POT. NARROW	70	620	4000	470	1.0	0.1
						ELODEA CANADENS	25					
						POT. RICHARDSONI	5					
		21	309046	497412	3.5	POT. GRAMINEUS	55	54	4000	3000	0.9	0.8
						POT. RICHARDSONI	20					

				CHARA SPP.	20					
				NAJAS FLEXILIS	5					
22	309074	497418	31.0	No Plants Present			410	40	3.0	2.5
23	309068	497419	16.0	CHARA SPP.	100	10	2500	600	2.0	1.2
24	309076	497423	29.0	No Plants Present			370	40	3.0	2.7
25	309070	497423	3.0	CHARA SPP.	100	10	3000	2300	1.7	1.3
26	309083	497430	31.5	No Plants Present			580	100	3.2	3.1

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	FAWN	1	309578	498245	23.0	No Plants Present			3500	58	2.1	1.2
		2	309564	498243	18.0	POT. RICHARDSONI	50	40	1000	130	2.5	0.9
						POT. NARROW	40					
						POT. GRAMINEUS	5					
						CHARA SPP.	5					
		3	309579	498247	20.0	CHARA SPP.	100	1	1800	110	2.8	2.3
		4	309567	498251	15.0	POT. NARROW	80	70	1000	120	2.4	0.4
						CHARA SPP.	20					
		5	309591	498257	24.0	CHARA SPP.	100	3	4300	150	3.1	2.4
		6	309583	498255	9.0	POT. GRAMINEUS	99	1080	1200	20	0.5	0.1
						CHARA SPP.	1					
		7	309571	498256	9.0	POT. RICHARDSONI	70	800	4500	100	1.3	0.3
						POT. GRAMINEUS	30					
		8	309606	498265	25.0	No Plants Present			3300	53	2.3	1.6
		9	309595	498262	10.0	POT. RICHARDSONI	98	2490	930	230	0.7	0.1
						ELODEA CANADENS	1					
						POT. NARROW	1					
		10	309587	498262	4.0	CHARA SPP.	100	40	700	480	1.2	0.7
		11	309575	498265	5.0	CHARA SPP.	95	40	3000	1100	1.0	0.4
						POT. ZOSTERIFORM	5					
		12	309611	498269	24.0	No Plants Present			2500	160	3.2	2.7
		13	309600	498270	4.0	CHARA SPP.	95	40	4500	1500	1.3	0.8
						POT. GRAMINEUS	5					
		14	309589	498269	3.0	CHARA SPP.	98	20	4500	3300	0.7	0.5
						POT. NARROW	2					
		15	309579	498269	4.0	CHARA SPP.	100	25	3900	2200	1.2	1.0
		16	309619	498275	28.0	No Plants Present			3300	110	2.9	2.2
		17	309612	498273	9.0	POT. GRAMINEUS	98	380	3500	450	0.4	0.2
						POT. NARROW	1					
						POT. ZOSTERIFORM	1					
		18	309607	498275	3.0	CHARA SPP.	80	12	4800	2600	0.4	0.3
						POT. GRAMINEUS	20					
		19	309626	498284	29.0	No Plants Present			3500	310	3.2	3.0

20	309619	498282	3.0	POT. RICHARDSONI	50	640	850	440	0.7	0.6
				CHARA SPP.	25					
				POT. GRAMINEUS	20					
				POT. NARROW	5					

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
ST. CLAIR	RUSSELL	1	309952	498649	32.5	No Plants Present			2000	1.	3.1	2.9
		2	309942	498647	24.0	No Plants Present			1800	1	2.7	0.6
		3	309929	498648	25.5	No Plants Present			3700	1.	2.6	1.6
		4	309973	498656	39.0	No Plants Present			580	0.	3.5	2.7
		5	309967	498653	34.5	No Plants Present			2500	2	3.4	3.2
		6	309954	498655	11.5	POT. NARROW	100	646	3300	4	1.4	0.2
		7	309945	498653	8.0	POT. GRAMINEUS	95	650	4700	120	0.8	0.2
						POT. NARROW	3					
						CHARA SPP.	2					
		8	309934	498654	31.0	No Plants Present			3200	1.	2.4	1.9
		9	309979	498662	31.0	No Plants Present			1500	3	3.1	2.8
		10	309967	498663	6.0	POT. GRAMINEUS	70	186	3000	730	0.5	0.1
						CHARA SPP.	30					
		11	309957	498661	4.5	POT. GRAMINEUS	50	10	3400	1900	0.6	0.3
						CHARA SPP.	50					
		12	309948	498664	5.0	POT. GRAMINEUS	50	10	3700	820	0.9	0.7
						CHARA SPP.	50					
		13	309934	498661	38.5	No Plants Present			1500	2	2.5	2.5
		14	309949	498671	15.5	No Plants Present			3600	1.	2.2	1.4

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	BELLE	1	312760	499950	4.0	VALLISNERIA AMER	100	258	440	250	1.2	0.9
		2	312753	499952	11.5	No Plants Present			300	15	1.8	1.6
		3	312768	499954	8.0	VALLISNERIA AMER	94	132	430	55	0.4	0.1
						NAJAS FLEXILIS	3					
						POT. ZOSTERIFORM	1					
						POT. CRISPUS	1					
						CHARA SPP.	1					
		4	312757	499959	24.0	No Plants Present			270	2	3.1	2.9
		5	312772	499967	15.5	No Plants Present			430	20	3.0	2.7
		6	312762	499965	35.0	No Plants Present			300	1	3.2	2.8
		7	312780	499968	6.0	VALLISNERIA AMER	95	90	100	25	0.3	0.1
						CHARA SPP.	5					
		8	312782	499971	19.0	No Plants Present			300	1.	2.5	1.5
		9	312776	499969	32.5	No Plants Present			460	2	3.0	2.8
		10	312796	499978	8.0	VALLISNERIA AMER	40	4	1000	560	0.6	0.5
						CHARA SPP.	40					
						POT. NARROW	10					
						POT. RICHARDSONI	10					
		11	312785	499975	33.5	No Plants Present			270	1	3.2	3.0
		12	312809	499985	11.0	VALLISNERIA AMER	100	32	1000	47	1.5	1.0
		13	312794	499983	35.5	No Plants Present			1600	14	3.3	3.0
		14	312858	499894	3.0	CHARA SPP.	60	218	3900	2300	0.4	0.1
						VALLISNERIA AMER	20					
						NAJAS FLEXILIS	10					
						MYRIO. SPICATUM	7					
						NITELLOP. OBTUSA	3					
		15	312849	499990	3.0	CHARA SPP.	45	248	3000	800	0.6	0.3
						NAJAS FLEXILIS	30					
						MYRIO. SPICATUM	12					
						NITELLOP. OBTUSA	4					
						NITELLA HYALINA	4					
						VALLISNERIA AMER	3					
						POT. ZOSTERIFORM	1					
		16	312838	499992	5.0	CHARA SPP.	45	380	210	61	0.2	0.2
						NAJAS FLEXILIS	40					
						VALLISNERIA AMER	8					
						MYRIO. SPICATUM	3					

				NITELLOP. OBTUSA	2						
				ELODEA CANADENS	2						
17	312828	499990	3.0	CHARA SPP.	85	475	1700	800	0.2	0.2
				NITELLOP. OBTUSA	5					
				POT. RICHARDSONI	4					
				VALLISNERIA AMER	3					
				NAJAS FLEXILIS	2					
				MYRIO. SPICATUM	1					
18	312818	499988	13.5	NAJAS FLEXILIS	45	58	3000	17	1.1	1.0
				CHARA SPP.	35					
				VALLISNERIA AMER	10					
				POT. ZOSTERIFORM	5					
				POT. RICHARDSONI	3					
				NITELLOP. OBTUSA	2					
19	312810	499993	34.5	No Plants Present			1300	10	3.0	2.5
20	312860	499999	21.0	No Plants Present			1600	120	1.0	0.6
21	312850	499998	18.0	No Plants Present			1600	20	0.6	0.3
22	312840	499995	21.0	No Plants Present			2100	1	1.9	1.4
23	312828	499993	25.0	No Plants Present			3200	1.	1.6	0.4
24	312817	499989	33.0	No Plants Present			2800	2	2.7	1.6

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1984

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RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	HENNEPIN	1	314076	500672	33.5	No Plants Present			1100	3	1.3	0.8
		2	314064	500668	7.0	VALLISNERIA AMER	70	470	290	76	0.3	0.1
						POT. NARROW	30					
		3	314081	500675	36.0	No Plants Present			1300	3	1.5	0.9
		4	314067	500674	6.5	VALLISNERIA AMER	100	352	300	97	0.2	0.1
		5	314058	500675	12.0	VALLISNERIA AMER	100	20	410	11	1.4	0.8
		6	314082	500682	21.0	No Plants Present			670	10	0.7	0.4
		7	314071	500681	7.0	VALLISNERIA AMER	100	160	280	96	0.4	0.1
		8	314062	500682	12.0	VALLISNERIA AMER	100	2	480	46	2.0	1.4
		9	314094	500691	32.5	No Plants Present			1100	2	1.5	0.8
		10	314085	500690	6.0	VALLISNERIA AMER	100	260	570	15	0.4	0.1
		11	314072	500691	6.5	VALLISNERIA AMER	100	370	340	1	0.5	0.1
		12	314065	500689	9.0	VALLISNERIA AMER	100	10	660	120	1.0	0.2
		13	314099	500696	27.0	No Plants Present			1200	3	1.6	0.7
		14	314088	500695	6.5	VALLISNERIA AMER	100	250	560	100	0.2	0.1
		15	314077	500695	6.0	VALLISNERIA AMER	95	134	370	160	0.3	0.2
						CHARA SPP.	5					
		16	314071	500696	8.0	VALLISNERIA AMER	100	125	420	1	1.4	0.2
		17	314103	500704	29.5	No Plants Present			980	2	1.3	0.3
		18	314091	500705	6.0	VALLISNERIA AMER	70	200	630	110	0.3	0.1
						CHARA SPP.	30					
		19	314081	500702	6.0	VALLISNERIA AMER	50	188	380	170	0.3	0.0
						CHARA SPP.	50					
		20	314075	500705	7.0	POT. RICHARDSONI	80	115	490	130	0.6	0.1
						VALLISNERIA AMER	20					
		21	314107	500708	30.0	No Plants Present			850	4	1.3	0.5
		22	314094	500709	6.0	VALLISNERIA AMER	100	580	480	22	0.3	0.1
		23	314085	500707	6.0	VALLISNERIA AMER	95	160	450	150	0.3	0.1
						MYRIO. SPICATUM	5					

24	314079	500707	8.0	POT. RICHARDSONI	60	538	240	1.	1.1	0.8
				VALLISNERIA AMER	25					
				NAJAS FLEXILIS	15					
25	314109	500715	28.5	No Plants Present			560	2	1.3	0.4
26	314097	500715	5.0	VALLISNERIA AMER	90	810	580	170	0.1	0.0
				CHARA SPP.	10					
27	314089	500716	6.0	VALLISNERIA AMER	100	172	360	91	0.2	0.1
28	314081	500714	34.0	No Plants Present			210	1	2.0	1.6
29	314112	500718	26.0	No Plants Present			600	3	1.4	0.5
30	314101	500720	7.0	VALLISNERIA AMER	100	92	700	180	0.5	0.1
31	314092	500719	6.0	VALLISNERIA AMER	100	400	300	3	0.3	0.1
32	314083	500723	32.0	No Plants Present			230	1.	2.4	1.6
33	314105	500728	10.0	VALLISNERIA AMER	99	110	1000	130	0.2	0.1
				CHARA SPP.	1					
34	314096	500729	9.0	VALLISNERIA AMER	100	130	360	7	0.4	0.2
35	314087	500728	31.5	No Plants Present			240	1	2.1	1.5
36	314109	500734	10.0	VALLISNERIA AMER	100	200	1100	130	0.2	0.1
37	314101	500736	32.0	No Plants Present			430	2	1.9	1.1
38	314098	500737	30.0	No Plants Present			230	1	2.5	1.7
39	314114	500743	12.5	No Plants Present			1000	16	1.5	0.5
40	314106	500746	30.0	No Plants Present			440	2	2.1	1.5

Submersed Macrophyte Grapnel Data, SEPTEMBER, 1984

Note: 1. (-) indicates missing data
2. (*) indicates < 0.100 g/m2

RIVER	ISLAND	GRID NUMBER	LORAN COORDINATES Upper	LORAN COORDINATES Lower	DEPTH (Ft.)	MACROPHYTE TAXON	PERCENT COMPOSITION	WET WEIGHT (gm.)	LIGHT (Foot Candles) Surface	LIGHT (Foot Candles) Bottom	CURRENT (Ft./Sec.) Surface	CURRENT (Ft./Sec.) Bottom
DETROIT	STONEY	1	314228	501972	9.0	VALLISNERIA AMER	100	236	4300	340	1.1	0.3
		2	314217	501971	11.0	No Plants Present			4100	320	2.2	1.2
		3	314207	501972	8.0	VALLISNERIA AMER	100	670	4000	150	0.8	0.1
		4	314197	501971	9.0	VALLISNERIA AMER	100	92	4100	250	0.5	0.3
		5	314187	501971	9.5	VALLISNERIA AMER	100	670	4100	130	0.4	0.1
		6	314233	501980	13.0	No Plants Present			3500	150	2.3	1.6
		7	314221	501980	7.5	POT. NARROW	70	918	4000	100	0.5	0.0
						VALLISNERIA AMER	30					
		8	314212	501978	10.0	VALLISNERIA AMER	100	418	3800	100	1.6	1.1
		9	314200	501978	8.5	No Plants Present			3500	790	0.4	0.3
		10	314191	501978	10.0	No Plants Present			4400	400	0.4	0.1
		11	314237	501986	9.0	VALLISNERIA AMER	100	28	4200	610	1.2	0.3
		12	314225	501982	4.0	HETERANTHERA DUB	60	3024	4000	2500	0.1	0.0
						ELODEA CANADENS	38					
						MYRIO. SPICATUM	1					
						VALLISNERIA AMER	1					
		13	314216	501985	3.5	HETERANTHERA DUB	98	351	4000	2000	0.3	0.1
						ELODEA CANADENS	1					
						POT. CRISPUS	1					
		14	314250	501992	10.0	No Plants Present			3200	450	2.7	1.6
		15	314240	501994	6.0	VALLISNERIA AMER	100	48	3900	900	1.4	0.4
		16	314230	501995	3.0	HETERANTHERA DUB	100	3080	3400	500	0.2	0.2
		17	314220	501993	3.5	ELODEA CANADENS	60	620	3800	1800	0.1	0.0
						HETERANTHERA DUB	40					
		18	314254	502001	7.0	No Plants Present			3500	1000	2.3	1.5
		19	314246	502001	2.0	VALLISNERIA AMER	100	60	3900	3500	0.7	0.6
		20	314260	502010	5.0	HETERANTHERA DUB	100	5	4200	1500	2.3	1.6