

Appendix 2

This appendix contains examples of statistical outputs created through the point-intercept sampling method for Kathan Lake, Oneida County. The data was collected during a survey conducted August 21-22, 2007.

Table 1. Summary Statistics

Total number of sites set-up	203
Total number of sites visited	171
Total number of sites with vegetation	149
Total number of sites shallower than maximum depth of plants	165
Frequency of occurrence at sites shallower than maximum depth of plants	90.30
Simpson Diversity Index	0.94
Maximum depth of plants (ft)	9.50
Number of sites sampled using rake on Rope (R)	0
Number of sites sampled using rake on Pole (P)	171
Average number of all species per site (shallower than max depth)	3.96
Average number of all species per site (veg. sites only)	4.39
Average number of native species per site (shallower than max depth)	3.56
Average number of native species per site (veg. sites only)	3.95
Species Richness	37
Species Richness (including visuals)	38
Species Richness (including visuals & boat survey)	40

Table 2. Individual species frequency of occurrences

Common Name	Scientific Name	% Frequency (Littoral)	% Frequency (Whole lake)	% Frequency (in vegetated areas)	Relative Frequency (%)
Bushy pondweed	<i>Najas flexilis</i>	41.2	39.8	45.6	10.4
Common waterweed	<i>Elodea canadensis</i>	40.6	39.2	45.0	10.2
Eurasian water milfoil*	<i>Myriophyllum spicatum</i> *	40.0	38.6	44.3	10.1
Filamentous algae	<i>Algae</i> spp.	26.1	25.1	28.9	6.6
Coontail	<i>Ceratophyllum demersum</i>	23.0	22.2	25.5	5.8
Stoneworts	<i>Nitella</i> spp.	21.8	21.1	24.2	5.5
Watershield	<i>Brasenia schreberi</i>	20.6	19.9	22.8	5.2
Small bladderwort	<i>Utricularia minor</i>	17.6	17.0	19.5	4.4
Small pondweed	<i>Potamogeton pusillus</i>	17.0	16.4	18.8	4.3
Common bladderwort	<i>Utricularia vulgaris</i>	16.4	15.8	18.1	4.1
Wild celery	<i>Vallisneria americana</i>	15.2	14.6	16.8	3.8
Flat stem pondweed	<i>Potamogeton zosteriformis</i>	13.9	13.5	15.4	3.5
Stiff pondweed	<i>Potamogeton strictifolius</i>	11.5	11.1	12.8	2.9
Ribbon leaf pondweed	<i>Potamogeton epihydrus</i>	9.1	8.8	10.1	2.3
White water lily	<i>Nymphaea odorata</i>	7.9	7.6	8.7	2.0
Muskgrasses	<i>Chara</i> spp.	7.3	7.0	8.1	1.8
Freshwater sponge	<i>Sponge</i> spp.	6.1	5.8	6.7	1.5
Moss	<i>Moss</i> spp.	6.1	5.8	6.7	1.5
Large-leaf pondweed	<i>Potamogeton amplifolius</i>	5.5	5.3	6.0	1.4
Spiny-spored quillwort	<i>Isoetes echinospora</i>	4.9	4.7	5.4	1.2
Waterwort	<i>Elatine minima</i>	4.2	4.1	4.7	1.1
Creeping spikerush	<i>Eleocharis palustris</i>	4.2	4.1	4.7	1.1
Water horsetail	<i>Equisetum fluviatile</i>	4.2	4.1	4.7	1.1
Northern water milfoil	<i>Myriophyllum sibiricum</i>	4.2	4.1	4.7	1.1
Thin floating-leaf bur-reed	<i>Sparganium</i> sp.	4.2	4.1	4.7	1.1
Spatterdock	<i>Nuphar variegata</i>	3.6	3.5	4.0	0.9
Spiral-fruited pondweed	<i>Potamogeton spirillus</i>	3.6	3.5	4.0	0.9
American bur-reed	<i>Sparganium americanum</i>	3.6	3.5	4.0	0.9
Shoreweed	<i>Littorella uniflora</i>	3.0	2.9	3.4	0.8
Brown-fruited rush	<i>Juncus pelocarpus</i> f. <i>submersus</i>	2.4	2.3	2.7	0.6
Variable pondweed	<i>Potamogeton gramineus</i>	2.4	2.3	2.7	0.6
Twin-stemmed bladderwort	<i>Utricularia gemmiscapa</i>	1.8	1.8	2.0	0.5
Pipewort	<i>Eriocaulon aquaticum</i>	0.6	0.6	0.7	0.2
Clasping leaf pondweed	<i>Potamogeton richardsonii</i>	0.6	0.6	0.7	0.2
Broad-leaved arrowhead	<i>Sagittaria latifolia</i>	0.6	0.6	0.7	0.2
Thin-leaved pondweed	<i>Potamogeton</i> sp.	0.6	0.6	0.7	0.2
Flat-leaved bladderwort	<i>Utricularia intermedia</i>	0.6	0.6	0.7	0.2
Cattail	<i>Typha</i> sp.	Visual	Visual	Visual	Visual
Needle spikerush	<i>Eleocharis acicularis</i>	Boat Survey	Boat Survey	Boat Survey	Boat Survey
Three-way sedge	<i>Dulichium arundinaceum</i>	Boat Survey	Boat Survey	Boat Survey	Boat Survey

Table 3. Number of sites where species was found and average rake fullness rating

Common Name	Scientific Name	# sites where species was found	# sites where species was found (including visuals)	Average rake fullness rating
Bushy pondweed	<i>Najas flexilis</i>	68	68	1.28
Common waterweed	<i>Elodea canadensis</i>	67	67	1.28
Eurasian water milfoil*	<i>Myriophyllum spicatum</i> *	66	71	1.47
Filamentous algae	<i>Algae</i> spp.	43	43	1.00
Coontail	<i>Ceratophyllum demersum</i>	38	38	1.37
Stoneworts	<i>Nitella</i> spp.	36	36	1.00
Watershield	<i>Brasenia schreberi</i>	34	58	1.68
Small bladderwort	<i>Utricularia minor</i>	29	29	1.10
Small pondweed	<i>Potamogeton pusillus</i>	28	28	1.14
Common bladderwort	<i>Utricularia vulgaris</i>	27	27	1.30
Wild celery	<i>Vallisneria americana</i>	25	26	1.36
Flat stem pondweed	<i>Potamogeton zosteriformis</i>	23	25	1.22
Stiff pondweed	<i>Potamogeton strictifolius</i>	19	19	1.16
Ribbon leaf pondweed	<i>Potamogeton epihydrus</i>	15	18	1.27
White water lily	<i>Nymphaea odorata</i>	13	42	1.69
Muskgrasses	<i>Chara</i> spp.	12	12	1.25
Freshwater sponge	Sponge spp.	10	11	1.00
Moss	Moss spp.	10	10	1.20
Large-leaf pondweed	<i>Potamogeton amplifolius</i>	9	10	1.33
Spiny-spored quillwort	<i>Isoetes echinospora</i>	8	11	1.00
Waterwort	<i>Elatine minima</i>	7	8	1.00
Creeping spikerush	<i>Eleocharis palustris</i>	7	9	1.14
Water horsetail	<i>Equisetum fluviatile</i>	7	15	1.43
Northern water milfoil	<i>Myriophyllum sibiricum</i>	7	7	1.00
Thin floating-leaf bur-reed	<i>Sparganium</i> sp.	7	7	1.00
Spatterdock	<i>Nuphar variegata</i>	6	22	1.17
Spiral-fruited pondweed	<i>Potamogeton spirillus</i>	6	6	1.00
American bur-reed	<i>Sparganium americanum</i>	6	11	1.50
Shoreweed	<i>Littorella uniflora</i>	5	5	1.00
Brown-fruited rush	<i>Juncus pelocarpus</i> f. <i>submersus</i>	4	5	1.25
Variable pondweed	<i>Potamogeton gramineus</i>	4	5	1.00
Twin-stemmed bladderwort	<i>Utricularia gemmiscapa</i>	3	3	1.00
Pipewort	<i>Eriocaulon aquaticum</i>	1	2	1.00
Clasping leaf pondweed	<i>Potamogeton richardsonii</i>	1	1	2.00
Broad-leaved arrowhead	<i>Sagittaria latifolia</i>	1	1	1.00
Thin-leaved pondweed	<i>Potamogeton</i> sp.	1	1	1.00
Flat-leaved bladderwort	<i>Utricularia intermedia</i>	1	1	1.00
Cattail	<i>Typha</i> sp.	Visual	3	n/a
Needle spikerush	<i>Eleocharis acicularis</i>	Boat Survey	Boat Survey	n/a
Three-way sedge	<i>Dulichium arundinaceum</i>	Boat Survey	Boat Survey	n/a