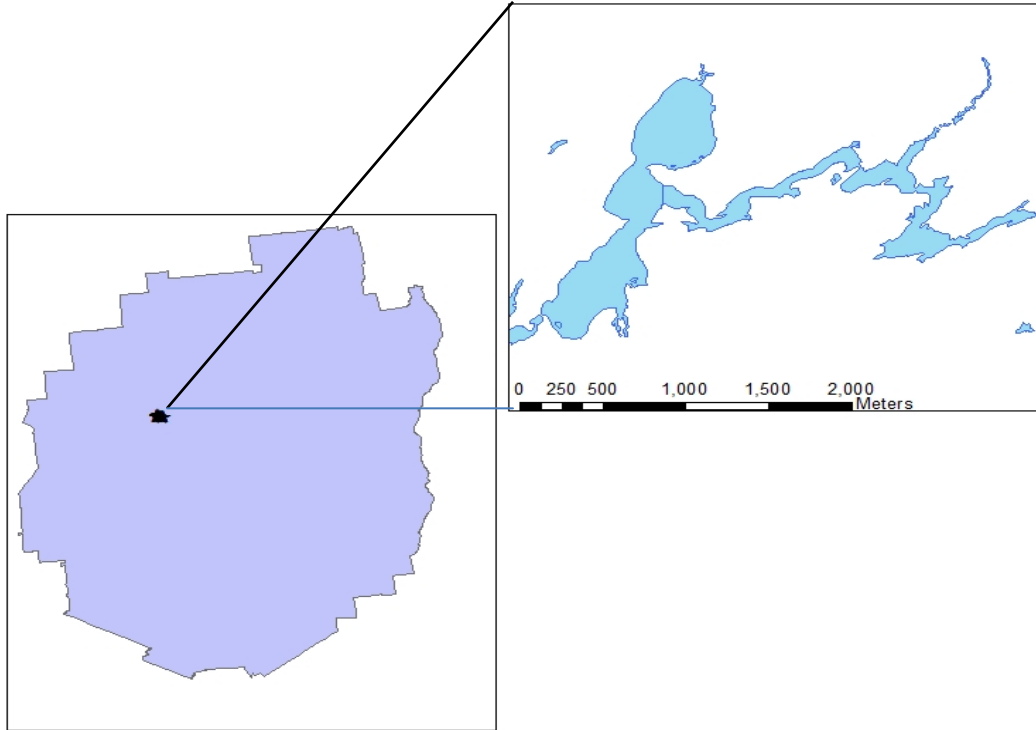


Hitchens Pond Aquatic Plant Survey 2013



Map 1: Location of Hitchens Pond

Hitchens Pond is located in St. Lawrence County, New York (Map 1). This pond was entered from of a canoe access point located near the lower dam on Lowes Lake. This is also the access point to travel to Lowes Lake.

An aquatic plant survey was conducted at Hitchens Pond on 12 June 2013. Aquatic plants were quite abundant in this water body, with 34 aquatic plant beds comprised 105.2 acres of this pond (Map 3). No aquatic invasive plants were observed in this survey. Seventeen species of native aquatic plants were identified. Species most common in Hitchens Pond were Water Shield (*Brasenia schreberi*), Large-leaf Pondweed (*Potamogeton amplifolius*), Ribbon-leaf Pondweed (*Potamogeton epihydrus*), White-stem Pondweed (*Potamogeton praelongus*), White-water Lily (*Nymphaea odorata*), and Yellow-water Lily (*Nuphar variegata*) (Table 1).

Of the 75 rake tosses deployed throughout the littoral zone of the pond, 52 had plants recovered. There were no species that were brought up on the rake that were not detected during the surface survey (Table 2).

Table 1: Abundance and area of aquatic plant beds in Hitchens Pond. Refer to Map 3 for bed locations. Abundance key: 1=RARE (<5%), 2=OCCASIONAL (6-15%), 3=PRESENT (16-25%), 4=COMMON (26-50%), 5=ABUNDANT (>50%). Species codes are defined on the next page.

Bed	BRSC	POAM	POEP	POPR	PORO	POSPI	NYOD	NISP	SPSP	NUVA	UTVU	SAGR	PONA	ELSP	UTPU	UTIN	Acres
1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0.00
2	1	0	1	0	0	0	1	0	0	0	0	0	2	3	0	0	0.06
3	3	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0.28
4	1	0	0	0	0	0	3	0	3	1	0	0	0	1	1	0	0.42
5	0	0	0	0	0	0	2	0	3	2	0	0	1	3	0	0	3.83
6	0	0	2	0	0	0	1	0	2	0	0	0	0	3	0	0	0.04
7	0	0	1	0	0	0	2	0	4	0	0	0	0	0	0	0	0.12
8	3	0	2	0	0	0	2	0	3	0	0	0	0	3	1	0	0.80
9	3	3	0	0	2	0	5	3	2	2	3	0	0	0	3	0	22.45
10	0	1	3	1	0	0	4	0	2	0	0	0	0	5	4	0	5.30
11	1	0	0	0	0	0	2	0	3	3	0	0	1	5	0	0	12.83
12	0	0	0	0	0	0	0	0	1	1	1	0	1	3	0	0	0.02
13	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0.05
14	1	0	0	0	0	0	1	0	1	1	2	1	0	0	0	3	0.05
15	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0.01
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
17	1	0	0	0	0	0	0	0	5	1	0	0	0	1	0	0	0.55
18	1	0	0	0	0	0	0	0	2	1	0	0	0	1	0	0	0.15
19	4	0	0	0	0	0	3	0	3	3	3	0	3	4	3	3	13.03
20	1	1	1	0	0	0	2	0	1	1	0	0	0	1	0	0	1.98
21	1	1	0	0	0	0	1	0	1	1	0	0	0	4	2	0	13.03
22	1	1	1	0	0	2	5	0	0	2	0	3	0	4	0	0	11.42
23	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.11
24	2	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	1.25
25	1	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0.30
26	1	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	1.27
27	1	0	1	0	0	0	4	0	2	1	0	0	0	4	1	0	6.57
28	2	1	1	0	0	0	2	0	2	2	0	0	0	4	0	0	1.14
29	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0.09
30	1	0	1	0	0	0	2	0	2	2	0	0	0	4	0	0	1.20
31	1	0	0	0	0	0	2	0	2	0	0	0	0	3	0	0	1.32
32	0	0	2	0	0	0	3	0	2	3	0	0	1	3	0	0	2.71
33	1	0	0	0	0	0	2	0	3	1	0	0	0	2	0	0	2.75
34	1	0	0	0	1	0	1	0	1	2	0	1	1	1	1	1	0.23

Species Code	Scientific name	Common Name
BRSC	<i>Brasenia schreberi</i>	water shield
ELSP	<i>Eleocharis species</i>	hair grass
ERSP	<i>Eriocaulon aquaticum</i>	pipewort
LODO	<i>Lobelia dortmanna</i>	water lobelia
MYAL	<i>Myriophyllum alpinus</i>	Alpine milfoil
MYSI	<i>Myriophyllum sibiricum</i>	Northern water-milfoil
NISP	<i>Najas species</i>	water naiad
NUVA	<i>Nuphar variegata</i>	spatterdock
NYOD	<i>Nymphaea odorata</i>	white water lily
POAM	<i>Potamogeton amplifolius</i>	large- leaved pondweed
POEP	<i>Potamogeton epihydrus</i>	ribbon-leaved pondweed
PONA	<i>Potamogeton natans</i>	floating-leaved pondweed
POPR	<i>Potamogeton praelongus</i>	white-stemmed pondweed
PORO	<i>Potamogeton robbinsii</i>	Robbins pondweed
POSPI	<i>Potamogeton spirillus</i>	spiral-fruited pondweed
SAGR	<i>Sagittaria graminea</i>	grass-leaf arrowhead
SPSP	<i>Sparganium species</i>	bur-reed
UTIN	<i>Utricularia inflata</i>	swollen bladderwort
UTPU	<i>Utricularia purpurea</i>	purple bladderwort
UTVU	<i>Utricularia vulgaris</i>	common bladderwort

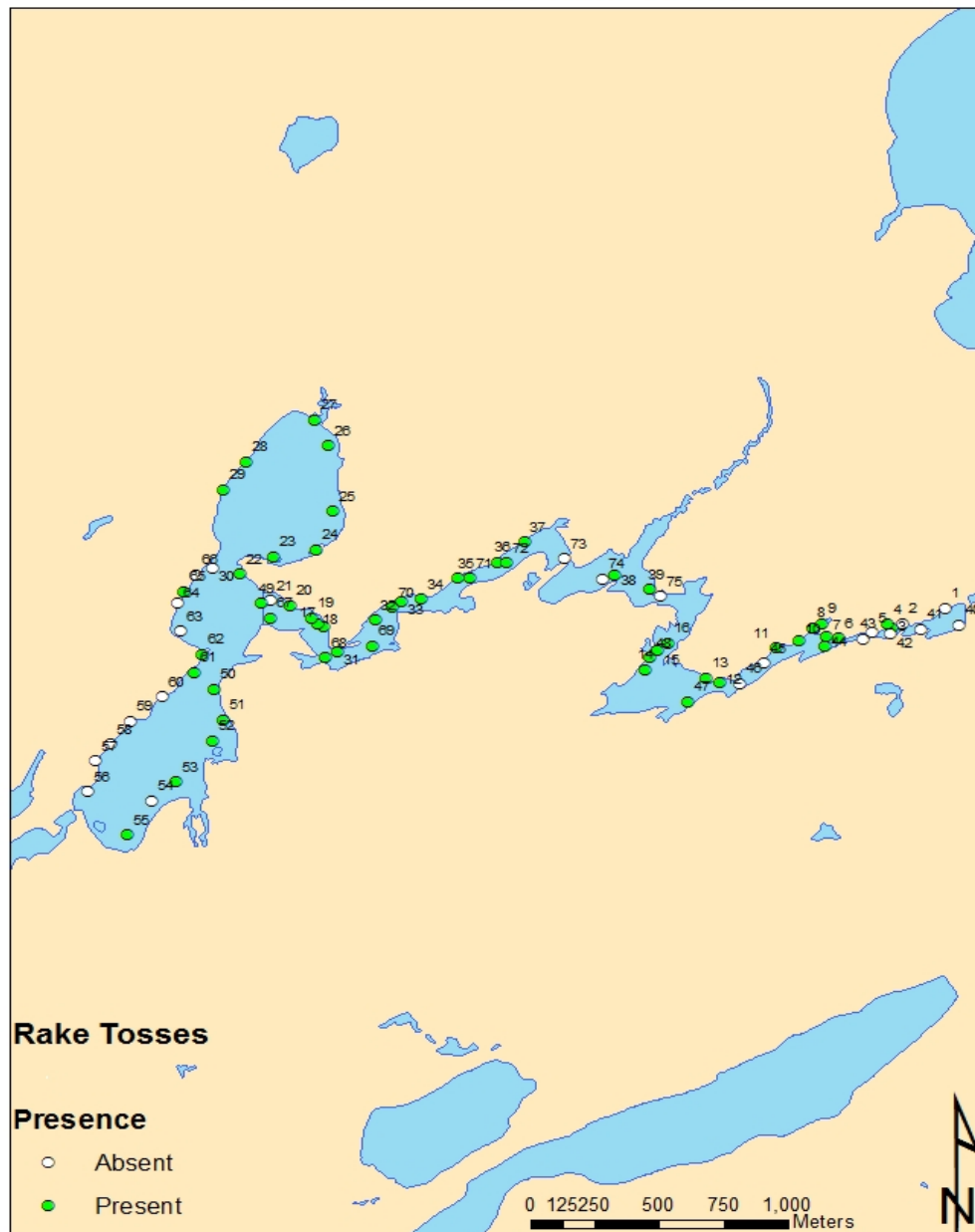
Table 2: Species present on the rake, abundance, and depth at each of the rake toss locations at Hitchens Pond. Refer to Map 2 for rake toss locations. Abundance key: 1=RARE(<5%), 2=OCCAISIONAL(6-15%), 3=PRESENT(16-25%), 4=COMMON(26-50%), 5=ABUNDANT(>50%).

Site	BRSC	POAM	PORO	NYOD	NISP	SPSP	UTVU	SAGR	ERSP	MYAL	MYSI	LODO	ELSP	UTPU	UTIN	Depth
3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	9
4	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	4
6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6
7	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	8
8	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4
9	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3
10	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6
11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5
12	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	3
13	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	2
14	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
15	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	5
16	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	7
17	0	0	0	0	0	0	0	1	0	0	0	0	3	0	0	3
18	0	0	0	0	0	0	0	0	0	0	4	0	2	2	0	6
19	0	1	0	0	0	0	0	0	0	0	0	0	2	1	0	4
20	0	0	0	0	0	0	3	0	0	0	0	0	4	0	0	5
22	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	4
23	0	0	0	0	0	0	4	0	0	0	0	0	0	5	0	4
24	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	5
25	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
26	0	0	3	0	0	0	1	0	0	0	0	0	3	0	0	8
27	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	3
28	0	0	0	0	4	0	0	0	0	0	0	0	3	1	0	8
29	0	0	0	0	3	0	0	0	3	0	0	0	2	0	0	5
31	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4
32	0	0	0	3	0	0	1	0	0	0	0	0	1	2	0	5
33	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	6

Table 2. (continued)

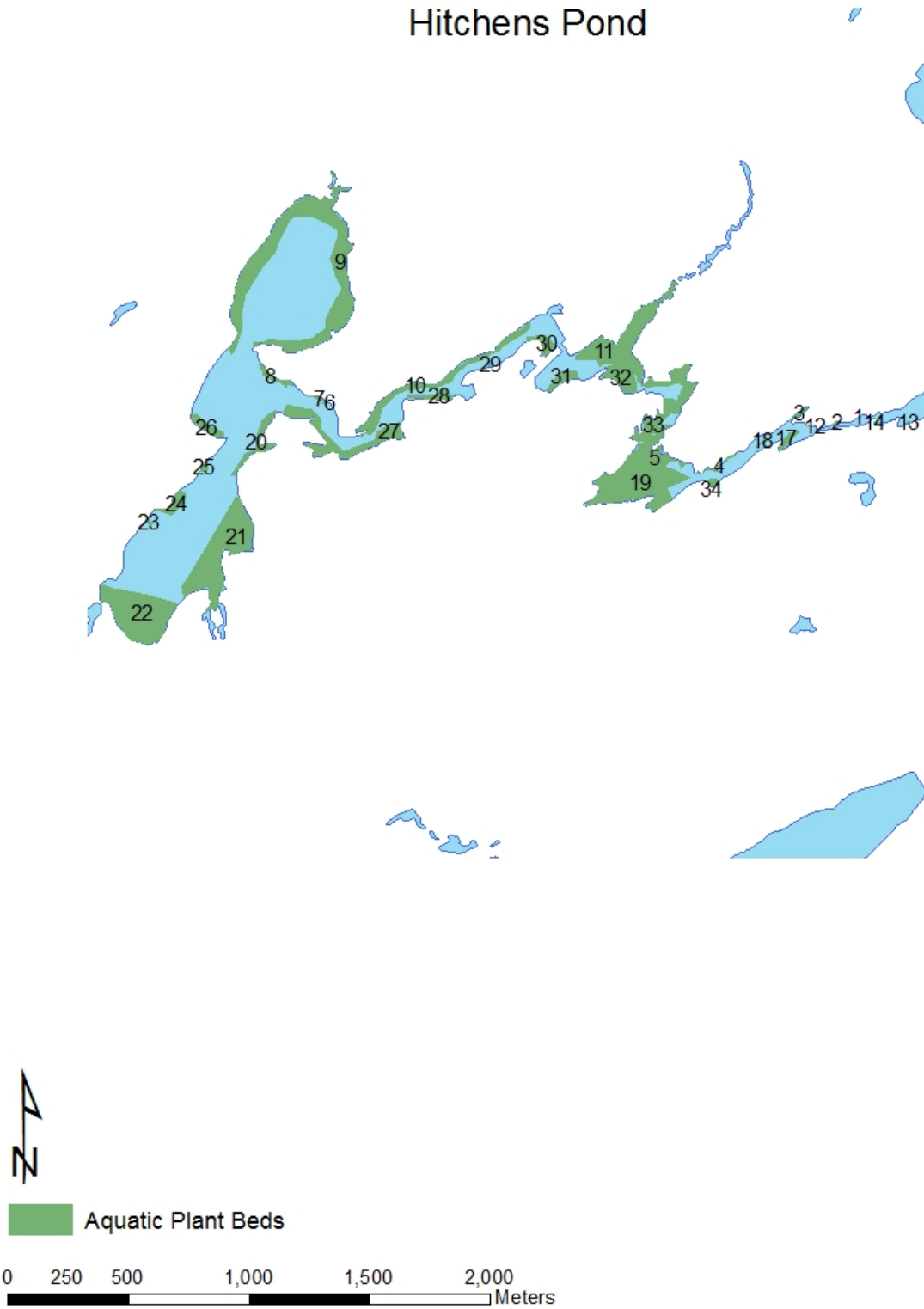
Site	BRSC	POAM	PORO	NYOD	NISP	SPSP	UTVU	SAGR	ERSP	MYAL	MYSI	LODO	ELSP	UTPU	UTIN	Depth
34	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5
35	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5
36	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
37	0	0	0	0	0	0	2	0	2	0	0	0	4	0	0	5
38	0	0	0	0	0	1	0	0	0	0	0	0	3	0	0	3
39	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5
44	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7
47	0	0	0	0	0	0	1	0	0	0	0	0	0	4	1	4
48	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6
49	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	5
50	0	0	0	0	0	0	0	0	0	1	2	0	1	1	0	6
51	0	0	0	0	0	0	0	0	0	3	0	0	2	2	0	4
52	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3
53	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
55	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	3
61	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7
62	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	3
65	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9
67	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	9
68	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	6
69	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	5
70	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	6
71	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	5
72	0	0	0	0	0	0	1	0	0	0	0	0	1	3	0	5

Hitchens Pond Rake Tosses



Map 2: Rake toss locations on Hitchens Pond on 12 June 2013. Open circles represent locations where no plants were detected, closed circles represents locations where plants were encountered on the rake. Data for rakes tosses can be found on Table 2.

Hitchens Pond



Map 3: Locations of the aquatic plant beds detected in Hitchens Pond during the surface survey on 12 June 2013. Data for plants beds can be found on Table 1.