

Spy Pond Plant Reports

April to May 2022

Brad Barber

===== *April 12, 2022* =====

Monday April 12 was my first day on Spy Pond. Sunny and warm with a breeze. Secchi depth in the south basin was 7' 8" near the west end of the marsh. The outfall was at 52cm (10 cm above the boards).

Near shore everywhere, the bottom of Spy Pond was covered with a layer of dead and decaying algae. Further off shore, the algae formed a heavy muck intermixed with aquatic plants, nitella, and filamentous algae. The filamentous algae in some areas was green. The water had a brown color to it.

There was heavier algae muck and fewer plants than last year at this time. Curly-leaf plants were about the same length (to 20"). The heaviest growth was near Rock Island and south-west of Elizabeth Island.

Last year saw moderate growth by April 25 and substantial growth by May 2.

Details

Near Kelwyn Manor boat ramp 150' from shore in 4' water -- lots of decayed filamentous algae. Some nitella. Closer to shore in 2-3' of water, no muck on rake toss, just shells.

East edge of Kelwyn Manor marsh in 350' from shore in 6.5' water. North toss had muck with less filamentous algae and some curly leaf 9-11" long. West toss was full rake with nitella covered with filamentous algae

West edge of Kelwyn Manor marsh 70' from shore in 7.5' water. Clean bottom

SW basin at first dock and first stone path in 4' water. South toss heavy muck with some curly leaf and nitella. North toss, less muck with curly leaf to 8"

Rock Island, 50' northeast in 5.2' water. West toss medium rake of nitella and mostly dead filamentous algae, some green. South toss mixed nitella and curly-leaf to 10". Lots of decayed filamentous algae. North toss all nitella and muck. Anchor covered in curly leaf to 18" long, mostly 12".

NE of Rock Island 150' from dinosaur in 10.5' water -- north toss muck with one 18" curly leaf and some nitella.

Ricci dock near Eliz. Island, 50' from shore in 5' water -- S toss a mix of decayed algae, nitella, and either young curly-leaf or thin-leaf pondweed. E toss, decayed algae and nitella. Anchor covered in muck

Between Elizabeth Island and north shore, closer to north shore in 4.5' water -- S toss heavy muck sparse nitella, W toss muck and nitella. East toss muck and nitella. Anchor covered in heavy muck with lots of decayed vegetation.

SE basin, 300' from Alfred Rd. in 5.2' water, S toss heavy filamentous with some nitella. W toss muck with green filamentous algae and nitella, a couple curly-leaf. N toss medium curly leaf to 5" with muck and filamentous algae. Muck and curly leaf to 5" on anchor.

S Elizabeth Island, 200' SW in 6.8' water. -- E toss two 20" curly leaf, W toss heavy muck and curly leaf to 20". N toss medium curly leaf to 18" with sparse nitella and heavy muck. S toss medium curly leaf to 22", muck and sparse nitella. Muck and curly leaf on anchor to 22"

Sheraton Park 200' off shore in 6' water -- E? toss medium curly leaf to 22" with nitella and lots of muck. S toss Nitella and muck, no curly leaf. W toss Nitella and muck, no curly leaf

===== *April 29, 2022* =====

Following is a curtailed plant report of the sill west of Elizabeth Island and the area around Rock Island.

Curly-leaf pondweed is up to 36" long, especially west of Elizabeth Island, 6 feet deep. It is visible on the bottom. On April 12, lengths were up to 20". Lengths are similar to last year, but density is less, particularly between Elizabeth Island and Pleasant Street. The muck is thoroughly decayed and heavy. Significantly more green nitella than on April 12. Filamentous algae not observed.

Details -- 'SP nn' indicates the site ID from Solitude's 2019 annual report.

4/29/2022, 5:40pm, 55 degrees, sunny and windy with gusts. Water is clear, no secchi depth.

SP 45, 200' north of Kelwyn Manor ramp, 5' water -- SE toss, sparse curly-leaf to 20" mixed with nitella. W toss, moderate curly-leaf to 27" on 3/4 rake. Thoroughly decayed muck

SP 30, 300' from Sheraton Park, 5' 10" water -- S toss sparse nitella. W toss moderate curly-leaf to 18" on 3/4 rake with nitella. Anchor heavy with muck, nitella, and curly-leaf to 32"

SP 27, west of south tip of Elizabeth Island, 6.5' water -- S toss, moderate curly leaf to 32" with nitella. N toss, sparse curly leaf. Anchor heavy with muck and curly-leaf to 36"

SP 26, sill west of Elizabeth Island, 6.5' water -- N toss, moderate curly-leaf to 36". Anchor moderate curly-leaf to 36". Plants visible on bottom

SP 21-22, west of Elizabeth Island, 5' water -- moderate nitella, some curly leaf. Anchor

muck, curly-leaf, and nitella.

SP 69 northwest of Elizabeth Island, 5' 4" water -- S, W, and N toss, sparse curly leaf to 18". Anchor empty

East of SP 69, halfway between Elizabeth Island and shore -- S toss, trace curly-leaf. E toss, trace curly-leaf to 12" with nitella

SP 40, northeast of Rock Island, 6' water -- E toss, trace curly-leaf and nitella. W toss, moderate curly-leaf to 26" with nitella

SP 8, north of Rock Island, 6' water -- W toss sparse-moderate curly-leaf to 36". S toss moderate curly-leaf to 32". E toss moderate curly-leaf to 26". N toss trace curly-leaf. Anchor heavy muck and curly-leaf to 34".

===== *May 10-11, 2022* =====

Secchi-depth at South Basin was 6' 7" at 6:00pm.

Curly-leaf pondweed is up to 55" long (compared to 36" on April 29). Curly-leaf beds are clearly visible north and north-east of Rock Island (south basin near Pleasant St), on the sill west of Elizabeth Island, and (to a lesser extent) in the southeast bay, near Alfred Street). With a few exceptions, curly-leaf was not seen in shallow water, less than 5' deep.

Nitella was present throughout, especially on the sill between Elizabeth Island and Sheraton Park Drive. There was bright-green filamentous algae in the southeast bay towards the condominiums. Otherwise algae was not seen.

Like the survey on April 29, no native plants were seen during this survey. The shoreline shows the effects of last fall's diquat treatment. There is a brown band approximately a foot wide.

The outfall was at 49cm with about an inch of water flowing over the boards. This is higher than expected. The boards were at 42.3 cm in 2020 after the shoreline restoration project. The boards were at 39 cm in 2001 as reported by a Tuft's survey.

Details -- Site IDs (SPnn) refer to Solitude's plant survey from their 2019 annual report. C-L refers to curly-leaf pondweed. Eliz. Is. is Elizabeth Island

Tuesday, 5-10-2022, sunny, 68 F, 5:10pm

SP44-45: 150 yds from Kelwyn Manor dock, 5.5' deep -- visible curly-leaf from boat, S toss sparse nitella and C-L to 30". W toss sparse C-L to 34". N toss medium C-L to 39",

E toss sparse nitella and C-L to 35". Anchor dense mud, sparse nitella and C-L to 35"

SP60-61 south basin buoy, secchi depth 6' 7"

SP68 5' deep nothing

south of SP 67, 300' from 1st dock of SW bay, 4' 2" deep -- W toss sparse C-L to 24", N toss medium C-L to 45", S toss medium C-L to 24"

Outfall at 49 cm, c.a., 1" above boards

SP49-50, 200' north of Rock Island, 6' deep -- Floating C-L to 42". Visible C-L 18" below surface. N toss medium C-L to 53" with nitella. W toss med. nitella and C-L to 48". E toos medium C-L to 46". Anchor heavy long C-L but without mud (usually mud is on the anchor)

No more sites (batteries died)

West of northern Eliz. Is. -- large snapping turtle maybe 1.5' across. Most of shoreline and Eliz. Is. has a 1' dead zone above the water.

West of northern Eliz. Is. and swan nest, 5.5' deep -- N, E, and S toss sparse nitella and C-L to 24". Anchor C-L to 36"

600' west of southern tip of Eliz Is. -- N toss medium nitella and C-L to 54". Anchor C-L and nitella to 48".

Wednesday, 5-11-2022, sunny, 70 F, 6:00 pm

On sill west of Eliz. Is. 5' 3" deep or more -- carpet of C-L 20" below surface

SP82, Addison St, 3.5' deep -- muskrat feeding, S toss medium nitella trace C-L to 8"

SP10, 150 yds north of Alfred Rd, 5' 3" deep -- carpet of C-L 32" below surface.

N of Alfred Rd -- N toss trace C-L to 6". S toss sparse C-L to 24" with heavy mud. W toss sparse C-L to 15" with long algae strands. E toss green filamentous algae and no C-L

SP30 150 yds from west edge of Purcell's on Sheraton Park, 6' deep -- visible C-L if at least 5' 3" deep. N toss dense nitella and mud, trace C-L to 11". E toss medium nitella, dense mud, sparse C-L to 36". W toss mostly nitella, one C-L 9". Anchor dense C-L to 55" with some nitella.

SP30-31, between kelwyn ramp and Eliz. Is, 6' deep -- C-L 24" below surface. S toss

sparse nitella, medium C-L to 46". Anchor C-L to 30"

===== *May 19, 2022* =====

Secchi-depth at the North Basin was 10.5 feet at 5:30pm (compared to 6' 7" on May 10 at the South Basin, 6pm). Mostly visual inspection with a few rake tosses. South basin not explored.

Easily visible beds of curly-leaf pondweed occurred throughout the sill west of Elizabeth Island. Beds grew in water at least 5' deep. A few plants grew in water 4' deep. Some plants reached the surface near the Kelwyn-Manor boat ramp. The water was up to 6' deep. Beds also occurred along the northern shore of the north basin and the southeast bay near Alfred St. Fragments of curly-leaf pondweed floated throughout Spy Pond. On May 10, beds of curly-leaf also occurred north and northeast of Rock Island.

A light coating of algae covered the bottom in shallow water. Algae looked brown from above. It was green and brown when brought to the surface. Rake tosses usually included nitella.

Details -- C-L refers to curly-leaf pondweed. Site IDs estimated from 'Spy Pond survey sites 2019.pdf' from Solitude's annual report

Thursday, 5-19-2022, 4pm, cloudy, 60 F, light rain later.

Widespread fragments of C-L on surface of water

SP45, near 74 Spy Pond Pkwy dock, 5' 3" deep -- C-L a foot below surface.

SP44-45, near Kelwyn Manor ramp, 5' 3" deep -- C-L broke the surface in 5' 3" deep water, 5' 10" deep water, and 6' deep water.

SP23 to SP45, traverse of sill from south to north shore, 5' to ca. 7' deep -- C-L beds throughout, many within a foot of the surface.

south of SP76-75, east of north tip of Eliz. Is., 9.5' deep -- E toss C-L to 4.5', trace nitella. W toss trace C-L and nitella. Anchor had C-L as well. Dense mud did not wash off curly-leaf roots.

north of SP79 100' from shore, 4.5' deep -- C-L 1.5' below surface. Some C-L in 4' deep water. N toss, trace C-L and nitella. Anchor nitella and C-L

North basin -- secchi depth 10.5' at 5:30pm

SP02, north beach, 4' deep -- bare bottom, S toss C-L 4" possible thin leaf (immature C-L via a 10x loupe). Anchor 3 C-L to 4.5'

north of SP10, southeast bay off of Alfred St -- C-L beds in 4.5' deep water, some 1' from surface, most deeper. In 5'9" deep water, C-L to 1' below surface. C-L almost to surface in 6' deep water.

SP9-11, southeast bay, 7.5' deep -- no C-L visible. E toss moderate nitella, possible thin leaf (immature C-L via 10x loupe). W toss trace nitella.

SP20-28, south tip of Elizabeth Island, 7' deep -- C-L to 1.5' from surface

SP28, near Purcell's on Sheraton Park, 5' deep -- limit of C-L beds. A few plants in 4' deep water.

===== *May 22, 2022* =====

Secchi depth at the South Basin was 8' (compared to 6' 7" on May 10, 5:20pm).

Curly leaf pondweed has broken the surface in multiple locations. Small white flowers are on stalks, usually above the surface. Beds of curly-leaf pondweed occurred in the southwest basin. Dense beds of curly-leaf occurred north and northeast of Rock Island.

Curly-leaf pondweed grows on a mud bottom. Only a couple of plants were seen in sand.

For most of the south basin, algae was not visible except for nitella and a coating on the bottom. Algae was heavy in the west corner behind the old sandbar, and visible in the water column from there to 226 Pleasant Street. Small floating green patches occurred in the southwest basin.

No other submerged aquatic plants were seen.

Details -- C-L refers to curly-leaf pondweed. Site IDs estimated from Solitude's 2019 annual report.'

Sunday May 22 2022 1:00pm was about 80, sunny, with an increasingly strong east wind

SP46-47, Kelywn Manor Marsh. Sandy bottom to 8' with shells visible. Secchi depth 9'.

SP60-61 south basin buoy, secchi depth 8'

SP64 small floating green patches, possible plants. Broke apart when touched. Tried to capture for later viewing but they disappeared. Not plants, probable algae.

SP68-67 southwest bay, 1st stone walk and 1st dock. C-L to 4" below surface in water 7'2" deep. Plants reached surface in water 5.5' deep. Dispersed C-L plants occurred in

water 1' deep.

SP68-67 southwest bay, south of 1st stone walk and 1st dock, water 5' 8" deep -- C-L within 1" of surface. E toss sparse nitella and C-L to 19". S toss sparse C-L to 4'. N toss sparse nitella and medium C-L to 4' with mud. Anchor with dense mud, trace nitella and medium C-L to 4.5'.

SP66-67 southwest bay to 30 Spy Pond Pkwy -- C-L close to surface in water 4 to 5' deep.

Outfall at 48.25 cm with 3.2 cm (a paddle width) of water over the boards. Board height is 45cm. The boards were 42.3 cm in 2020 and 39 cm in 2001.

SP63, north of outfall in water 7' 3" deep -- visible C-L on bottom. N toss mud with trace nitella. S toss (other side of outfall) medium nitella and trace C-L to 4' with mud.

SP63 to SP54, along Rt. 2 path -- occasional C-L plants. Rock-fill along edge. Sharp drop at varying distances, close to shore at SP54.

SP53 west corner behind old sandbar -- visible algae throughout water column, whitish floating algae almost green. Pea soup green algae from shore to 6' out, to the dock at 252 Pleasant St.

SP53-37 Eykamp's dock, water 6' deep -- C-L 14" below surface. Visible algae in water column, continuing east a ways.

north of SP50 opposite 232 Pleasant St (Friis), water 9' deep -- western edge of C-L beds near Rock Island. E toss medium nitella and C-L to 7.5'. N toss trace nitella, S toss sparse nitella and C-L to 38".

SP38 to SP35 north of Rock Island from 232 Pleasant to 204 Pleasant (dinosaur) -- dense beds of C-L with increasing gaps along the eastern and western edges. Some C-L in water 2.5' deep

SP24-23 east of Gould Road, water 5' deep -- C-L 1' from surface. Beds of C-L continue almost to the sill.

SP25 to SP31, across sill -- C-L on surface with small white flowers.

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