

2024 Mountain View Lake AIS Survey

Aquatic Invasive Species Surveys Survey Team Report



2024 Mountain View Lake Aquatic Invasive Species Survey

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Cover image: Photo courtesy of Mountain View Association



Executive Summary

The purpose of this effort was to perform a point intercept survey in preparation for submitting a permit to the Adirondack Park Agency (APA) for management of Eurasian watermilfoil using the herbicide ProcellaCOR EC.

We surveyed 73 stations (sample points) with a total of 28 points within the two proposed treatment areas. Fourteen points were surveyed in each of the proposed treatment areas. A total of 45 points were surveyed outside of the proposed treatment area. Our survey design and methodologies followed the APA requirements for permit submission.

Our team documented aquatic plant species occurrence, species cover class, overall plant cover class, depth, and species richness at each of the 73 stations.

Eurasian watermilfoil was documented at a total of 24 of the 73 stations (32.8%); within the proposed treatment areas, it was recorded at 10 stations, and at 14 locations outside the proposed treatment area. Eighteen other native species were documented in this survey.





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Overview

We performed an aquatic invasive species (AIS) and native aquatic plant species survey for Mountainview Lake in Franklin County on September 10th, 2024. This survey was completed in preparation for The Mountain View Lake Association applying to the Adirondack Park Agency for a permit to use the herbicide ProcellaCOR EC for the control of an aquatic pest (AQV). This survey was completed in accordance with all of the required parameters of the linked application requirements: <u>https://www.dropbox.com/s/kn7c043b53k7wns/SIR-</u> <u>AquaticHerbicides.pdf?dl=0</u>

The Mountain View Lake Association is planning to apply for a permit to use ProcellaCOR EC in 2025 to manage Eurasian watermilfoil. We conducted the surveys and created maps and data tables of the survey results per the requirements of the permit.

For more information on our qualifications and services, our Qualifications Packet can be accessed via this link: <u>https://www.dropbox.com/s/2jc37h56z4jkb6i/Lake%20Surveys.pdf?dl=0</u> You can also learn more about Adirondack Research at www.adkres.org.

Adirondack Research was able to complete the following tasks as part of this project:

- Survey 73 stations in the entirety of the 235 -acre waterbody over a day with two crew members using a motorboat.
- Survey, identify, and photograph all native plant species at point intercept survey stations within a survey design to meet Adirondack Park Agency requirements for applying for the use of the herbicide ProcellaCOR EC.
- Draft maps showing survey locations, overall plant abundance, depth, species richness, and abundance for each of the 23 species recorded in GIS.
- Create tables displaying station number, GPS coordinates, depth, species richness, and abundance of the target species; abundance of each species at all stations; the total count of station numbers each species is found, including overall percentages; and susceptibility of each species to herbicide ProcellaCOR EC.
- Drafted detailed descriptions of all 19 species including information of the impacts of each species on their environment.
- Produced this report of the described survey effort.



Methods

Below is a description of the survey methods used while surveying your lake. We've included a brief description of the equipment used, our cleaning procedure for all our equipment before accessing the lake, and a description of our survey techniques.

Equipment

Equipment used while completing the Aquatic Invasive Species (AIS) survey of the lake consisted of double-sided rakes for collecting plant samples from under the water, an iPad 4 mini for data collection. All data and observations were recorded using ESRI's Survey123 for ArcGIS application. Surveys were conducted via motorboat.

Cleaning

As our team is frequently moving from one water body to another, specific precautionary measures were taken to ensure that all equipment used was decontaminated and free of AIS. To ensure that all equipment was free of AIS, we thoroughly washed and decontaminated all of our equipment at one of the Adirondack AIS Prevention Program's free boat wash and decontamination stations. High pressure hot water was used at these sites to ensure that no AIS spread via equipment.

Monitoring Techniques

While out on the waterbody, we surveyed plants at survey stations, or sites, that were predetermined prior to performing the on-the-water survey. These survey stations were selected based on criteria outlined by the Adirondack Park Agency as requirements for applying for a permit application to perform management using the herbicide ProcellaCOR EC. Specifically, we established a sampling design based on the following APA requirements:

- 1. Perform survey at height of growing season.
- 2. Establish point intercept survey points (stations/Sites) based on a grid size one acre or less.
- 3. Survey area must include the entire littoral zone (buffer zone) within 0.3 miles of the edge of the proposed treatment area.
- Perform point intercept surveys at a minimum of 12 sites within the proposed treatment area and at least 24 sites outside of the proposed treatment area and within the 0.3-mile buffer zone.
- 5. Perform rake toss surveys at each site or sample point by throwing as many rake tosses as needed to find all plants at or near the sample point or site. This method is biased towards finding every plant species that may exist within the vicinity of a sampling location.
- 6. Record each species along with the following parameters (water depth, overall rake plant abundance, abundance of each species)
- 7. Additionally, photograph one example of each species identified during the survey.



The littoral zone typically encompasses the area from shoreline to a depth of about 15 feet. We utilized publicly available bathymetric maps of the proposed treatment areas as well as the surrounding area within 0.3 miles to determine the survey extent. We then evenly distributed roughly 45 survey points outside of the proposed treatment areas, for a total of 73 points across the entirety of the lake. We then shifted points to distribute our sampling locations across different habitat types, locations around shorelines, and to be within the water depths of the littoral zones based on maps and aerial imagery.

The team surveyed the area by navigating to each survey point, tossing the rake and by performing visual surveys where possible. All plants retrieved by rake toss or seen by visual inspection were identified to the best of our abilities (usually to the species level, but sometimes to genus). Both native and invasive plants found were identified using the "Maine Field Guide to Invasive Aquatic Plants and their common native look-alikes" by Lake Stewards of Maine.

Based upon how much plant material was observed on the rake toss, we assigned a percent cover for the entire rake and for each species on the rake. Plants that were observed visually and not collected on a rake toss were estimated based on their appearance from the water surface. Based on plant abundance, we used the following density classes:

Density Class	Clas	Coverage Class (plant density)	
т	Trace	1-2 stems	Less than 5%
S	Sparse	3-10 stems	5 - 25%
М	Moderate	Rakeful; no empty tines	26 - 50%
D	Dense	Rakeful; no visible tines	51 - 75%
HD	High Density	Difficult to bring on boat	76 - 100%

Table 1: Note we collect two density classes between 51-100% (51-75% and 75-100%) while some studies combine the two. Colors in the density class correspond to their relative abundance markers on maps (3 and 5-32).

Results

The team surveyed 73 sites on September 10th 2024: detecting one invasive species (Eurasian watermilfoil) and 18 native species. Table 2 provides a summary of all aquatic vegetation detected in Mountain View Lake, in addition to their count and frequency of occurrence relative to the 73 points surveyed, invasive species are dictated in red. Full descriptions for each of these species and impacts on their environment are attached in the appendix. Note that our depth measurements are from the bottom of the boat to the lake bottom.



Common Name	Scientific Name	Occurrences	Percent Frequency
American eelgrass	Vallisneria americana	20	26.0
Annual hairgrass	Deschampsia danthonioides	1	1.3
Clasping-leaf pondweed	Potamogeton perfoliatus	1	1.3
Common bladderwort	Utricularia macrorhiza	3	3.9
Common naiad	Najas flexilis	4	5.2
Coontail	Ceratophyllum demersum	4	5.2
Eurasian watermilfoil	Myriophyllum spicatum	24	31.2
Floating leaf pondweed	Potamogeton natans	3	3.9
Fragrant water-lily	Nymphaea odorata	18	23.4
Large-leaf pondweed	Potamogeton amplifolius	2	2.6
Muskgrass	Chara sp	1	1.3
Needle spikerush	Eleocharis acicularis	1	1.3
Robbin's pondweed	Potamogeton robbinsii	23	29.9
Small duckweed	Lemna minor	2	2.6
Small pondweed	Potamogeton pusillus	2	2.6
Variegated yellow pond-lily	Nuphar variegata	7	9.1
Stonewort	Nitella sp.	28	36.4
Water weed	Elodea sp.	18	23.4
Watershield	Brasenia schreberi	4	5.2

Table 2. Summary of Aquatic Vegetation Occurrences Mountain View Lake 2024

Coverage class was recorded for each of the individual plant records recorded at every station in 2024 and are displayed in Table 4.



Species Distributions

American eel grass (Vallisneria americana): This plant was found at a total of 20 out of 77 stations resulting in 26.0% of occurrences. It was documented in two density classes, trace levels, (n=16, 80.0%) followed by sparse levels, (n=4, 20.0%).

Annual hairgrass (*Deschampsia danthonioides***)**: This plant was found at a total of 1 out of 73 stations resulting in 1.3% of occurrences. It was documented in one coverage class. It was found at trace levels (n=1, 100%)

Clasping-leaf pondweed (*Potamogeton perfoliatus***)***:* This plant was found at a total of 1 out of 73 stations resulting in 1.3% of occurrences. It was documented in one coverage class. It was found at trace levels (n=1, 100%)

Bladderwort (*Utricularia sp.*): This plant was found at a total of 3 out of 73 stations resulting in 3.9% of occurrences. It was documented in one coverage class. It was found at trace levels (n=3, 100%)

Common naiad (*Najas flexilis.***):** This plant was found at a total of 4 out of 73 stations resulting in 5.2% of occurrences. It was documented in one coverage class. It was found at trace levels (n=4, 100%)

Coontail (*Ceratophyllum demersum***):** This plant was found at a total of 4 out of 73 stations resulting in 5.2% of occurrences. It was documented in one coverage class. It was found at trace levels (n=4, 100%)

Eurasian watermilfoil *(Myriophyllum spicatum):* This plant was found at a total of 24 out of 73 stations resulting in 31.2% of occurrences. It was documented in three density classes, trace levels, (n=20, 83.3%), sparse levels, (n=3, 12.5%), and moderate levels (n=1, 4.2%).

Floating-leaf pondweed (*Potamogeton natans*): This plant was found at a total of 3 out of 73 stations resulting in 3.9% of occurrences. It was documented in one coverage class. It was found at trace levels (n=3, 100%)

Fragrant waterlily (*Nymphaea odorata*): This plant was found at a total of 18 out of 73 stations resulting in 23.4% of occurrences. It was documented in two density classes, trace levels, (n=17, 94.4%) followed by sparse levels, (n=1, 5.6%).

Large-leaf pondweed (*Potamogeton amplifolius*): This plant was found at a total of 2 out of 73 stations resulting in 2.6% of occurrences. It was documented in two density classes, trace levels, (n=1, 50.0%) followed by sparse levels, (n=1, 50.0%).



Muskgrass (*Chara sp.):* This plant was found at a total of 1 out of 73 stations resulting in 1.3% of occurrences. It was documented in one coverage class. It was found at sparse levels (n=1, 100%)

Needle spikerush (Eleocharis acicularis): This plant was found at a total of 1 out of 73 stations resulting in 1.3% of occurrences. It was documented in one coverage class. It was found at trace levels (n=1, 100%)

Robbin's pondweed (*Potamogeton robbinsii***):** This plant was found at a total of 23 out of 73 stations resulting in 29.9% of occurrences. It was documented in three density classes, sparse levels, (n=12, 52.2%), trace levels, (n=9, 39.1%), and moderate levels (n=2, 8.7%).

Small duckweed (Lemna minor): This plant was found at a total of 2 out of 73 stations resulting in 2.6% of occurrences. It was documented in one coverage class. It was found at trace levels (n=2, 100%)

Small pondweed (*Potamogeton pusillus***):** This plant was found at a total of 2 out of 73 stations resulting in 2.6% of occurrences. It was documented in two density classes, trace levels, (n=1, 50.0%) followed by sparse levels, (n=1, 50.0%).

Variegated yellow pond-lily (*Nuphar variegata***):** This plant was found at a total of 7 out of 73 stations resulting in 9.1% of occurrences. It was documented in two density classes, trace levels, (n=4, 57.1%) followed by sparse levels, (n=3, 42.9%).

Stonewort (Nitella sp.): This plant was found at a total of 28 out of 73 stations resulting in 36.4% of occurrences. It was documented in four density classes, trace levels, (n=12, 42.9%), sparse levels, (n=13, 46.4%), moderate levels (n=2, 7.1%), and highly dense (n=1, 3.6%)

Water weed (*Elodea sp.***):** This plant was found at a total of 18 out of 73 stations resulting in 23.4% of occurrences. It was documented in four density classes, trace levels, (n=13, 72.2%), sparse levels, (n=3, 16.7%), moderate levels (n=1, 5.5%), and highly dense (n=1, 5.5%)

Watershield (*Brasenia schreberi*): This plant was found at a total of 4 out of 73 stations resulting in 5.2% of occurrences. It was documented in one coverage class. It was found at trace levels (n=4, 100%)



tation	Density	Latitude	Longitude	Richne
2	Less than 5%	-74.11671	44.68997	3
7	Less than 5%	-74.11564	44.688003	1
9	Less than 5%	-74.11626	44.688975	2
10	Less than 5%	-74.11606	44.688756	3
11	Less than 5%	-74.12424	44.696803	3
14	Less than 5%	-74.12294	44.69431	4
22	Less than 5%	-74.11805	44.692297	2
25	Less than 5%	-74.11685	44.691134	2
27	Less than 5%	-74.11872	44.69131	1
38	Less than 5%	-74.13262	44.701024	6
41	Less than 5%	-74.13446	44.701013	4
42	Less than 5%	-74.13585	44.701099	4
48	Less than 5%	-74.13003	44.702854	3
51	Less than 5%	-74.13503	44.702075	4
53	Less than 5%	-74.12631	44.697485	4
55	5-25%	-74.11714	44.690371	2
61	5-25%	-74.12029	44.692434	3
66	Less than 5%	-74.11576	44.688143	3
67	5-25%	-74.11869	44.692367	4
68	Less than 5%	-74.11575	44.688778	2
69	Less than 5%	-74.11557	44.688099	4
73	Less than 5%	-74.12902	44.69811	1
76	26-50%	-74.12364	44.695315	1
77	Less than 5%	-74.12131	44.694176	3

Table 3. Eurasian watermilfoil Presence – Mountain View Lake 2024

Depth	Station	Natershield	Coontail	Auskgrass	Annual hairgrass	Veedle spikerush	Nater weed	Small duckweed	Eurasian watermilfoil	Common naiad	stonewort	/ariegated yellow pond-lily	-ragrant waterlily	-loating leaf pondweed	arge leaf pondweed-	Clasping leaf pondwees	Smal pondweed	Robbin's pondweed	Common bladderwort	American eelgrass	Richness	Rake Density
1.4	1	-	-	-			-		_	-	•	-	_	_	_	-		-	-	-	0	None
1.8	2						Т		Т	Т											3	5-25%
0.5	3				Т															Т	2	Less than 5%
0.5	4																				0	None
0.5	5																				0	Less than 5%
0.5	6		Т				Т													Т	3	Less than 5%
1.7	7								Т												1	Less than 5%
0.5	8																				0	None
0.5	9							Т	Т												2	Less than 5%
1	10						Т		Т								S				3	5-25%
2.7	11						Т		Т		S										3	5-25%
1.7	12										Т	S									2	5-25%
0.5	13																				0	None
1.9	14						Т		Т		HD				S						4	51-75%
1.6	15	Т											Т					S		Т	4	Less than 5%
1.6	16							T				S									2	5-25%
1	17												Т					S		Т	3	5-25%
1.4	18											Т									1	Less than 5%
2.4	19						T														1	Less than 5%
1	20										S										1	5-25%
1	21																	Т			1	Less than 5%
0.7	22						S		Т												2	5-25%
1	23																				0	None
0.7	24																				0	None
1.4	25								Т	Т											2	Less than 5%
1	26										S		Т					Т		Т	4	5-25%
0.8	27								Т												1	Less than 5%
1	28												Т					S		T	3	5-25%
1.7	29						S														1	5-25%
1	30																	Т			1	Less than 5%
1	31										Т						_	S			2	5-25%
1	32										S			Т			T			T	4	5-25%
1	33										_		T					S			2	5-25%
	34										T		T								2	Less than 5%
1	35										T		T					Μ	_		3	26-50%
2	36												S					T	T	T	4	5-25%

Table 4. Abundance of Species by Site – Mountain View Lake 2024

Table 4 continued

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Donth	Station	/atershield	oontail	luskgrass	nnual hairgrass	leedle spikerush	/ater weed	mall duckweed	urasian watermilfoil	ommon naiad	tonewort	ariegated yellow pond-lily	ragrant waterlily	loating leaf pondweed	arge leaf pondweed	lasping leaf pondwees:	mal pondweed	obbin's pondweed	ommon bladderwort	merican eelgrass	Bishnoos	Bales Domoity
Depth	Station	>	0	2	<u> </u>	<u></u>	~	S	ш	0	<u>s</u>	<u> </u>	<u> </u>	<u>ш</u>	<u> </u>	<u> </u>	S	~	<u> </u>	<	Richness	Rake Density
1	37						_		_	_	_		_			1			I	_	2	Less than 5%
1	38						I		l	1	S		I					-		l	6	5-25%
1	39	-											-					1			1	Less than 5%
1	40								-									1		~	3	Less than 5%
1	41								 -										-	S	4	5-25%
1	42			<u> </u>					I		~		I					5	I		4	5-25%
1.5	43			5							3		-					Ŧ			2	5-25%
1	44																				2	5-25%
2	45	-																S			2	5-25%
3	46												I					S		-	3	5-25%
1	4/								–		Ŧ									1	1	Less than 5%
1	48										 									5	3	5-25%
1	49										I										1	Less than 5%
1	50								Ŧ					т				⊻ ⊤		T	1	26-50%
1	51	–							I	Ŧ	т			I				I		I T	4	5-25%
1	52								-	I	I		-					~		 	4	5-25%
	53								I									3			4	5-25%
0.5	54						~		~												0	None
1.6	55						5		3									~			2	5-25%
1	56					-							-					3		–	1	5-25%
1	57										-										3	5-25%
1	58						_														1	Less than 5%
1.9	59										5	-									2	5-25%
1./	60						HD		_		_										2	51-75%
1	61								5		5									~	2	5-25%
1.4	62						-				≌ 	~		-						১ •	2	5-25%
1	63										 	3									5	5-25%
	64										I	т	–					<u>_</u>			1	Less than 5%
2	65								T		T	1						3			3	5-25%
1.4	66		-				-														2	Less than 5%
	67		I						5 T		3										4	26-50%
0.5	68								 												1	Less than 5%
2	69																				1	Less than 5%
	70										c	т			т					C	0	None E 250
	71						M				3							ç		3	4	3-∠3% 26 E0%
2	72		т				^v 		M		ç							3			2	20-30%
	73		I						M		ъ т										4	
2	74										NA										1	
1.8	75		Ŧ				–		M		I ^M										1	
1.8	76		I						I¶ ⊤		3										4	51-/5%
1.9	//										5										3	5-25%





Photos



Caption: American eelgrass (Vallisneria americana)



Caption: Annual hairgrass (*Deschampsia danthonioides*)



Caption: Clasping-leaf pondweed (*Potamogeton perfoliatus*)



Caption: Common bladderwort (*Utricularia macrorhiza*)



Caption: Coontail (*Ceratophyllum demersum*)



Caption: Eurasian watermilfoil (*Myriophyllum spicatum*)





Caption: Floating-leaf pondweed (*Potamogeton natans*)



Caption: Fragrant waterlily (*Nymphaea odorata*)



Caption: Large-leaf pondweed (*Potamogeton amplifolius*)



Caption: Muskgrass (Chara sp.)



Caption: Needle spikerush (Eleocharis acicularis)



Caption: Robbin's pondweed (*Potamogeton robbinsii*)





Caption: Small duckweed (Lemna minor)



Caption: Small pondweed (*Potamogeton pusillus*)



Caption: Variegated yellow pondlily (*Nuphar variegata*)



Caption: Stonewort (Nitella sp.)



Caption: Water weed (Elodea sp.)



Caption: Watershield (*Brasenia schreberi*)

Maps

Maps 5-25 display the plant abundance for each species across all survey points. Map 1 marks the numbered station points, Map 2 displays depth at each station point, Map 3 displays overall plant abundance, and Map 4 displays species richness per site.





















































Plant Descriptions & ProcellaCOR Sensitivity

Common Name	Scientific Name	ProcellaCOR Sensitivity	Source
American eelgrass	Vallisneria americana	Low	1.0
Annual hairgrass	Deschampsia danthonioides	Low	1.0
Clasping leaf pondweed	Potamogeton perfoliatus	Low	1.0
Common naiad	Najas flexilis	Low	1.0
Common bladderwort	Utricularia macrorhiza	Low	1.0
Coontail	Ceratophyllum demersum	Low-moderate	1.0
Eurasian watermilfoil	Myriophyllum spicatum	High	1.0
Floating-leaf pondweed	Potamogeton natans	Low	1.0
Fragrant water lily	Nymphaea odorata	Moderate	1.0
Large-leaved pondweed	Potamogeton amplifolius	Low	1.0
Muskgrass	Chara sp.	Low	1.0
Needle spikerush	Eleocharis acicularis	N/A	N/A
Robbins pondweed	Potamogeton robbinsii	Low	1.0
Small pondweed	Potamogeton pusillus	Low	1.0
Small duckweed	Lemna minor	N/A	N/A
Variegated yellow pond-lily	Nuphar variegata	Low-moderate	1.0
Stonewort	Nitella sp.	Low	2.0
Water weed	Elodea sp.	Low	1.0
Watershield	Brasenia schreberi	Moderate-high	1.0

¹Table 5. ProcellaCOR sensitivity

Table 5. ProcellaCOR sensitivity for all species detected in Mountainview Lake. Species with unavailable or unknown responses to ProcellaCOR are marked N/A

¹**Source 1:** Heilman, M. (2019). "Selective Control of Invasive Watermilfoils with ProcellaCOR® Aquatic Herbicide and Response of Native Aquatic Plants." SePRO. <u>https://lgpc.ny.gov/system/files/documents/2022/03/technical-summary-procellacor-selective-control-of-invasive-watermilfoils-plus-appendix-28jan2019.pdf</u>

Source 2: Vermont Department of Environmental Conservation (2022), "ProcellaCOR EC Aquatic Macrophyte Species Frequency of Occurrence Pre-and Post-Treatment Statistical Analysis."

https://dec.vermont.gov/sites/dec/files/wsm/lakes/ANC/docs/Procellacor%20Aquatic%20Macrophyte%20Species%20Frequency %200f%20Occurrence%20Pre-and%20Post-Treatment%20Statistical%20Analysis%204-12-22.pdf



American Eelgrass

A submerged aquatic plant with long, ribbon-like green leaves that grow from a basal rosette. Leaves can reach up to several feet in length, creating a dense underwater carpet. Often found in sandy or muddy substrates in shallow, calm water. This plant provides critical habitat for fish and invertebrates.

Annual Hairgrass

A small, tufted grass with delicate, thin blades growing from a single base. This species has short lifespans and often populates the edges of water bodies or moist, sandy soils. It typically remains low-growing, rarely exceeding 10 inches.

Clasping Leaf Pondweed

A submerged plant with oval, clasping leaves that embrace the stem, creating a slight spiral effect. Leaves are bright green with smooth edges and have a fine, translucent quality. Found in freshwater lakes, it prefers clearer water and is sensitive to disturbances.

Common Naiad

A bushy, branched plant with narrow, pointed leaves that grow in opposite pairs. Typically dark green, it can thrive in both clear and murky waters, anchoring in sandy or muddy soils. This plant is an important food source for waterfowl.

Common Bladderwort

A carnivorous plant with finely divided, thread-like leaves and tiny bladder traps that capture small aquatic organisms. Floating and feathery, it often forms dense mats in shallow, slow-moving waters. Bright yellow flowers appear above the water surface.

Coontail

A submerged, free-floating plant with bushy, fan-shaped leaf whorls resembling a raccoon's tail. Leaves are dark green and serrated, creating a rough texture. Often found in nutrient-rich or stagnant waters, it tolerates a range of conditions.

Eurasian Watermilfoil

An invasive species characterized by feathery, finely divided leaves arranged in whorls along a reddish stem. It can form dense mats that outcompete native vegetation. Found in lakes, ponds, and slow-moving rivers, it thrives in disturbed ecosystems.

Floating-Leaf Pondweed

An aquatic plant with oval, floating leaves that resemble small lily pads, ranging from 2-5 inches in size. Leaves are bright green on top and reddish underneath. Stems are attached to a rhizome, rooting in sediment. This species flowers in late summer.

Fragrant Water Lily

A floating plant with round, waxy leaves and white to pink flowers emitting a sweet fragrance. Leaves are 6-12 inches in diameter, creating dense floating mats. Common in ponds and shallow lakes.



Large-Leaved Pondweed

A broad-leaved species with wavy-edged leaves, growing from a stout stem. Leaves can reach several inches in length, making this one of the larger pondweeds. Prefers clear, shallow waters and provides cover for fish.

Muskgrass

A type of macroalgae, muskgrass has a bushy appearance with whorled branches and a strong, musky odor. It forms dense mats and is common in shallow, clear water.

Needle Spikerush

A slender, grass-like plant with needle-thin stems that grows in clusters along shorelines and shallow water. Tolerates a range of water conditions.

Robbin's Pondweed

A narrow-leaved pondweed with fine, ribbon-like leaves that sway in the current. Typically found in clear, cool waters and provides excellent habitat for aquatic life.

Small Pondweed

A delicate, narrow-leaved plant that grows in clusters along the bottoms of ponds and slowmoving rivers. Leaves are bright green and create a lacy appearance underwater.

Small Duckweed

A tiny floating plant with round, green leaves that spread across the water surface. Often forms dense mats in still or slow-moving water.

Variegated yellow pond-lily

A robust plant with large, heart-shaped leaves that float on the surface. Yellow, cup-shaped flowers bloom throughout the summer. Found in ponds and marshes, it provides shelter for fish and insects.

Stonewort

A type of macroalgae with a rough, segmented appearance and stone-like nodes along its stems. Often found in calcium-rich waters and forms dense mats.

Water Weed

A submerged plant with elongated leaves growing in whorls of three along the stem. Dark green and bushy, it thrives in nutrient-rich waters.

Watershield

A floating-leaf plant with oval, waxy leaves and a reddish underside. Roots extend from a rhizome in the substrate. Purple flowers bloom briefly in late summer.





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