Tables and Figures.

Rating	Description
None (0)	No plants on rake
Trace (T)	Few plants on rake
Sparse (S)	Rake up to half full of plants
Medium (M)	Rake more than half full of plants
Dense (D)	Rake at maximum capacity; difficult to retrieve

Table 1: Relative abundance ratings assigned to retrieved rakes at survey points as described in previous survey reporting by Solitude Lake Management (2019).



Figure 1: Retrieving and sorting SAV by species (Top) while concurrently recording sonar/SAV biovolume data throughout the littoral zone of Chautauqua Lake (Bottom).

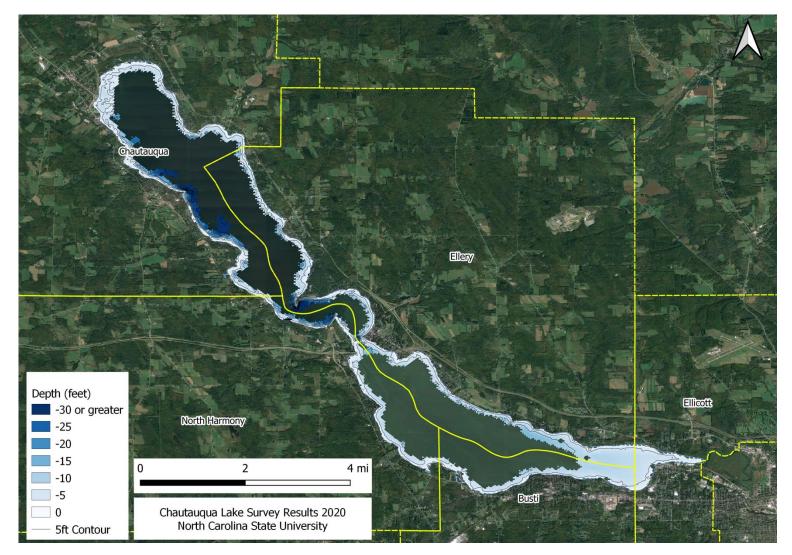


Figure 2. Lakewide bathymetry estimates of surveyed littoral zone constructed from echosounding data. Lighter color areas represent shallower depth regions. A 5-foot contour line is placed to help visualize the littoral shelf (0-20 ft).

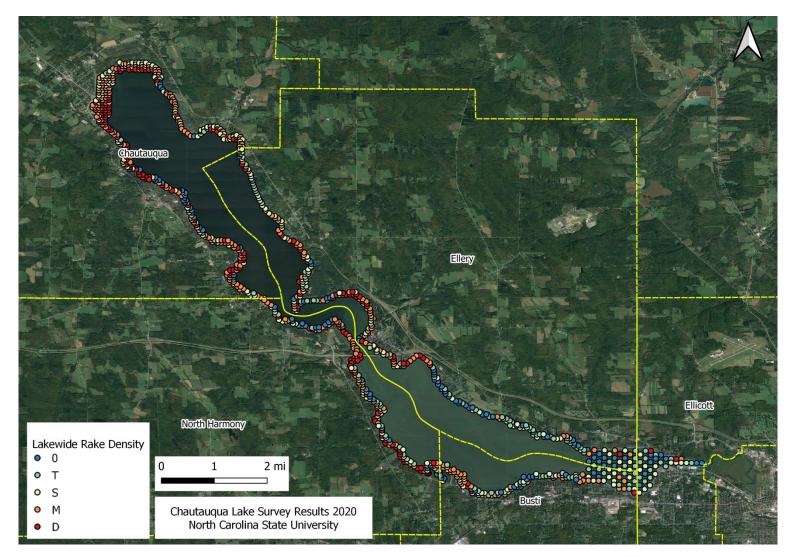


Figure 3. Lakewide presence and rake density data collected from point-intercept SAV rake toss survey.

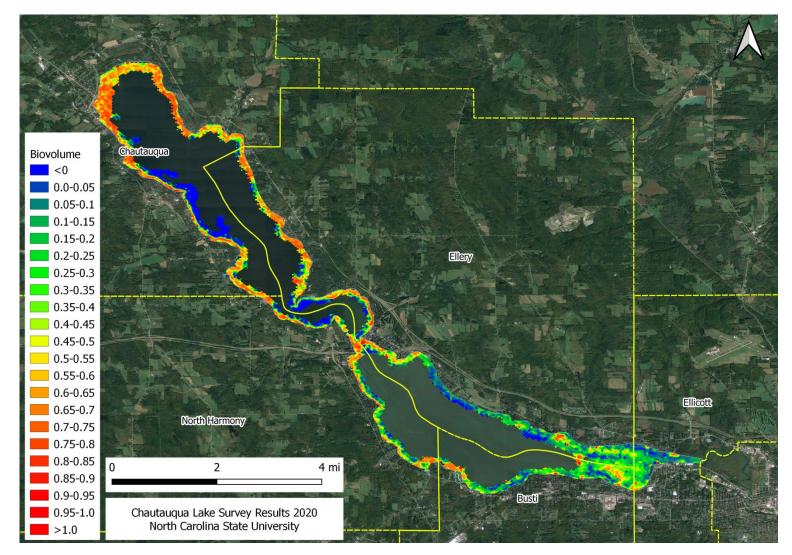


Figure 4. Lakewide SAV biovolume estimates constructed from echosounding data. Warmer color areas represent greater water column occupancy (0-100% occupied).

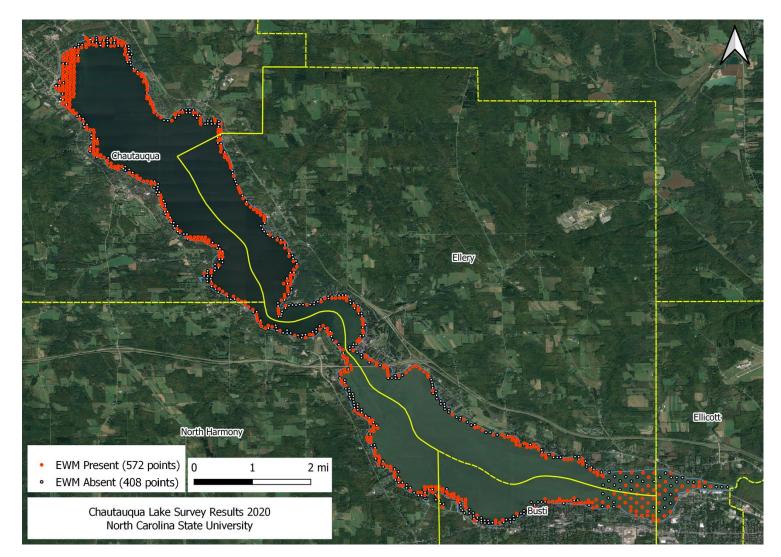


Figure 5: Identified Eurasian Watermilfoil locations found throughout the whole-lake.

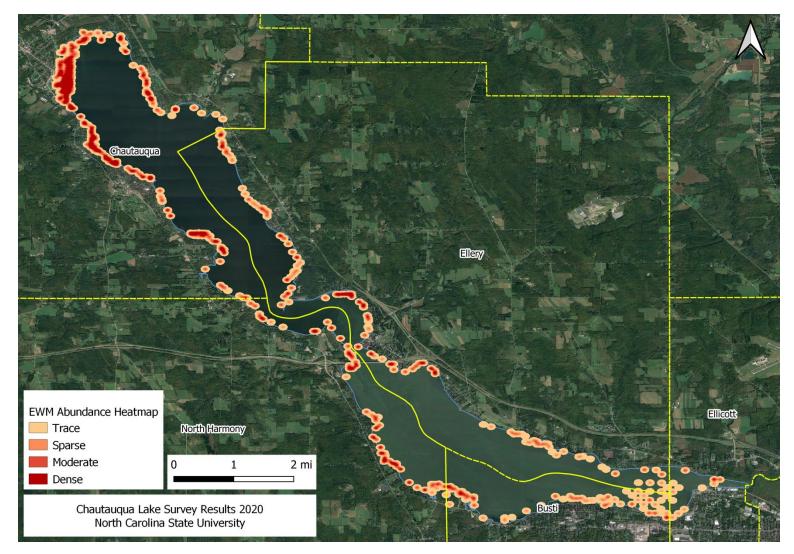


Figure 6. Lakewide point-intercept density estimates of Eurasian Watermilfoil locations.

	WHOI	_E LA	KE								
SPECIES	PRESENT	TO	TAL	TR	ACE	SPA	ARSE	MOD	ERATE	DE	NSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		980									
TOTAL VEGETATED SITES		864	88%	147	17%	240	28%	307	36%	170	20
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	572	58%	431	75%	116	20%	23	4%	2	0
COONTAIL	CERATOPHYLLUM DEMERSUM	535	55%	280	52%	157	29%	54	10%	44	8
WATER STARGRASS	HETERANTHERA DUBIA	455	46%	175	38%	198	44%	63	14%	19	4
WILD CELERY	VALLISNERIA AMERICANA	398	41%	225	57%	141	35%	28	7%	4	1
COMMON WATERWEED	ELODEA CANADENSIS	346	35%	221	64%	94	27%	22	6%	9	3
SLENDER NAIAD	NAJAS FLEXILIS	226	23%	160	71%	56	25%	7	3%	3	1
WESTERN WATERWEED	ELODEA NUTALLI	182	19%	112	62%	42	23%	17	9%	11	6
IVY-LEAVED DUCKWEED	LEMNA TRISULCA	172	18%	158	92%	14	8%	0	0%	0	C
WHITESTEM PONDWEED	POTAMOGETON PRAELONGUS	108	11%	65	60%	34	31%	9	8%	0	C
FLATSTEM PONDWEED	POTAMOGETON ZOSTERA	74	8%	63	85%	10	14%	1	1%	0	C
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	69	7%	54	78%	15	22%	0	0%	0	(
CLASPING-LEAF PONDWEED	POTAMOGETON RICHARDSONII	60	6%	46	77%	13	22%	0	0%	1	2
CURLY-LEAF PONDWEED	POTAMOGETON CRISPUS	50	5%	44	88%	4	8%	2	4%	0	(
MACROALGAE (NATIVE)	CHARA/NITELLA	21	2%	21	100%	0	0%	0	0%	0	(
WATER PLANTAIN	ALISMA SUBCORDATUM	21	2%	21	100%	0	0%	0	0%	0	0
STARRY STONEWORT	NITELLOPSIS OBTUSA	13	1%	10	77%	3	23%	0	0%	0	(
SMALL PONDWEED	POTAMOGETON PUSILLUS	10	1%	8	80%	2	20%	0	0%	0	(
BRITTLE NAIAD	NAJAS MAJOR	10	1%	10	100%	0	0%	0	0%	0	(
LEAFY PONDWEED	POTAMOGETON FOLIOSUS	9	1%	8	89%	1	11%	0	0%	0	(
SAGO PONDWEED	STUCKENIA PECTINATA	8	1%	4	50%	4	50%	0	0%	0	(
ROBBINS PONDWEED	POTAMOGETON ROBBINSI	8	1%	8	100%	0	0%	0	0%	0	(
SMALL DUCKWEED	LEMNA MINOR	5	1%	4	80%	1	20%	0	0%	0	(
WHITE WATER CROWFOOT	RANUNCULUS AQUATILIS	2	0%	2	100%	0	0%	0	0%	Ő	(
LARGELEAF PONDWEED	POTAMOGETON AMPLIFOLIUS	1	0%	1	100%	0	0%	0	0%	0	(
FILAMENTOUS ALGAE	VARIOUS SPECIES	67	7%		,.	_	.,.		• / •		
WHITE WATER LILY	NYMPHAEA ODORATA	58	6%								
JAPANESE KNOTWEED	POLYGONUM CUSPIDATUM	27	3%								
BENTHIC FILAMENTOUS ALGAE	LYNGBYA SP.	22	2%								
YELLOW WATER LILY	NUPHAR VARIEGATA	21	2%								
WATER WILLOW	JUSTICIA AMERICANA	14	1%								
CATTAIL	TYPHA LATIFOLIA	7	1%								
COMMON REED	PHRAGMITES AUSTRALIS	6	1%								
PICKERELWEED	PONTEDERIA CORDATA	5	1%								
BULRUSH	SCIRPUS SP.	2	0%								

Table 2: SAV species recorded during the Fall 2020 Survey of Chautauqua Lake (Whole Lake). Non-native species are marked in red.



Figure 7: Sprouted curly-leaf pondweed plant (Left) and a collection of unsprouted curly-leaf pondweed turions (Right) retrieved from rake tosses during the survey period.

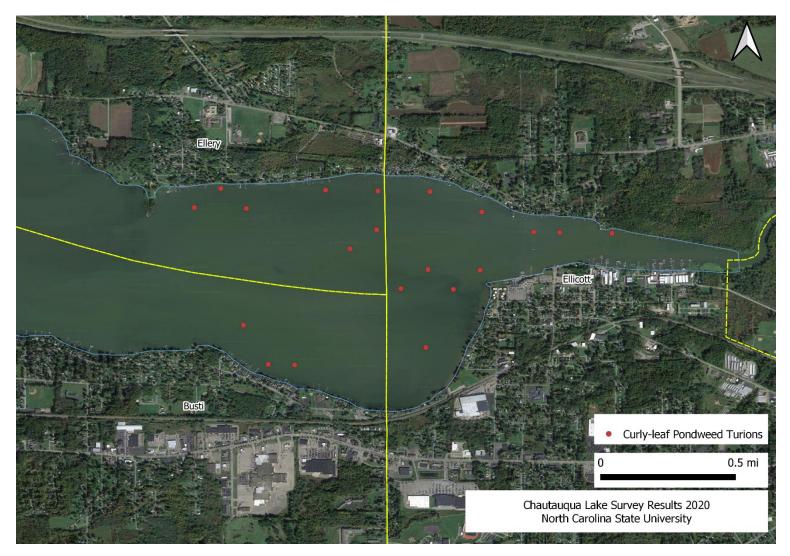


Figure 8: Locations of Curly-leaf Pondweed Turions. The greatest spatial density of turions was found among the outlet area.



Figure 9: Dense mussel populations observed growing on SAV leaves and stems.



Figure 10: Algal blooms of varying densities documented throughout the survey period.

Table 4: Basic water quality measurements recorded at Lake Chautauqua at time of survey. '*' indicates parameters that are significantly different (p < 0.05) between North and South basins according to a Student's t test.

		Lake Region	
Parameter	Whole Lake	North Basin	South Basin
<i>n</i> Sites	30	17	13
Site Depth (m)	2.03	2.32	1.65
Temperature (℃)*	21.93	22.38	21.26
pH*	7.73	7.32	8.34
Conductivity (uS/cm)*	0.21	0.21	0.20
Dissolved Oxygen (mg/L)*	7.09	7.19	6.94
Dissolved Oxygen (% Sat) *	80.94	82.72	78.28
Secchi Depth (m)*	1.08	1.61	0.40

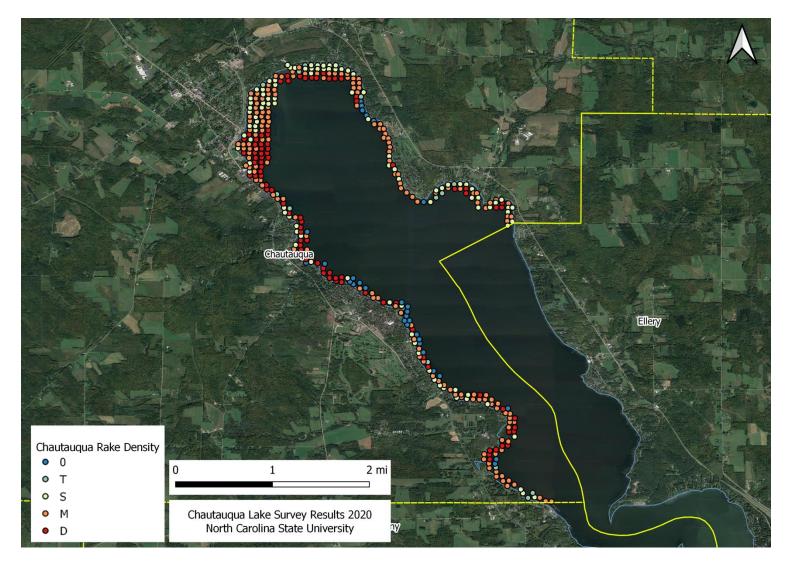


Figure 11: Presence and rake density data collected from point-intercept SAV rake toss survey for the Town of Chautauqua.

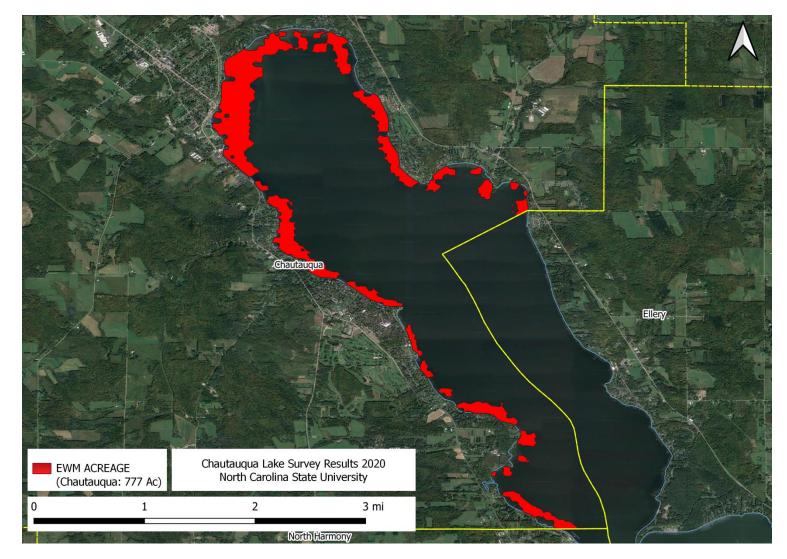


Figure 12: Interpolated estimates of Eurasian Watermilfoil plant bed extents found within the Town of Chautauqua.

Table 5: SAV species recorded during the Fall 2020 Survey of Chautauqua Lake (Town of Chautauqua). Non-native species are marked in red.

	TOWN OF C	HAU	TAUQ	UA							
SPECIES	PRESENT	то	TAL	TR	ACE	SP	ARSE	MOD	ERATE	DE	NSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		381									
TOTAL VEGETATED SITES		354	93%	13	4%	98	28%	154	44%	89	25%
COONTAIL	CERATOPHYLLUM DEMERSUM	281	74%	185	66%	49	17%	27	10%	20	7%
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	244	64%	187	77%	45	18%	12	5%	0	0%
WATER STARGRASS	HETERANTHERA DUBIA	216	57%	131	61%	73	34%	12	6%	0	0%
COMMON WATERWEED	ELODEA CANADENSIS	196	51%	160	82%	32	16%	3	2%	1	1%
WILD CELERY	VALLISNERIA AMERICANA	190	50%	158	83%	30	16%	2	1%	0	0%
SLENDER NAIAD	NAJAS FLEXILIS	111	29%	100	90%	11	10%	0	0%	0	0%
IVY-LEAVED DUCKWEED	LEMNA TRISULCA	90	24%	87	97%	3	3%	0	0%	0	0%
WHITESTEM PONDWEED	POTAMOGETON PRAELONGUS	80	21%	62	78%	17	21%	1	1%	0	0%
FLATSTEM PONDWEED	POTAMOGETON ZOSTERA	68	18%	65	96%	2	3%	1	1%	0	0%
CLASPING-LEAF PONDWEED	POTAMOGETON RICHARDSONII	46	12%	45	98%	0	0%	1	2%	0	0%
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	33	9%	32	97%	1	3%	0	0%	0	0%
WESTERN WATERWEED	ELODEA NUTALLI	23	6%	23	100%	0	0%	0	0%	0	0%
MACROALGAE (NATIVE)	CHARA/NITELLA	15	4%	15	100%	0	0%	0	0%	0	0%
WATER PLANTAIN	ALISMA SUBCORDATUM	15	4%	15	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	POTAMOGETON CRISPUS	12	3%	12	100%	0	0%	0	0%	0	0%
SMALL PONDWEED	POTAMOGETON PUSILLUS	8	2%	8	100%	0	0%	0	0%	0	0%
LEAFY PONDWEED	POTAMOGETON FOLIOSUS	6	2%	5	83%	1	17%	0	0%	0	0%
ROBBINS PONDWEED	POTAMOGETON ROBBINSII	5	1%	5	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	STUCKENIA PECTINATA	5	1%	5	100%	0	0%	0	0%	0	0%
STARRY STONEWORT	NITELLOPSIS OBTUSA	5	1%	5	100%	0	0%	0	0%	0	0%
WHITE WATER CROWFOOT	RANUNCULUS AQUATILIS	4	1%	4	100%	0	0%	0	0%	0	0%
SMALL DUCKWEED	LEMNA MINOR	2	1%	2	100%	0	0%	0	0%	0	0%
LARGELEAF PONDWEED	POTAMOGETON AMPLIFOLIUS	1	0%	1	100%	0	0%	0	0%	0	0%
FILAMENTOUS ALGAE	VARIOUS SPECIES	50	13%								
WHITE WATER LILY	NYMPHAEA ODORATA	17	4%								
WATER WILLOW	JUSTICIA AMERICANA	7	2%								
YELLOW WATER LILY	NUPHAR VARIEGATA	4	1%								
COMMON REED	PHRAGMITES AUSTRALIS	3	1%								
PICKERELWEED	PONTEDERIA CORDATA	3	1%								
BENTHIC FILAMENTOUS ALGAE	LYNGBYA SP.	2	1%								
CATTAIL	TYPHA LATIFOLIA	1	0.003							<u> </u>	

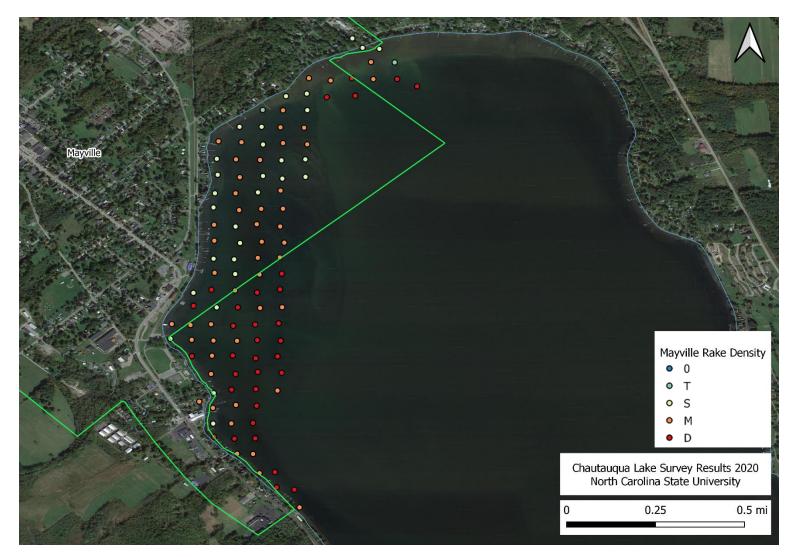


Figure 13: Presence and rake density data collected from point-intercept SAV rake toss survey for the Village of Mayville.

Table 6: SAV species recorded during the Fall 2020 Survey of Chautauqua Lake (Village of Mayville). Non-native species are marked in red.

	VILLAGE O	FMA	YVILL	E							
SPECIES	PRESENT	то	TAL	TF	ACE	SP	ARSE	MODE	RATE	DE	NSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		113									
TOTAL VEGETATED SITES		113	100%	2	2%	29	26%	49	43%	33	29%
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	95	84%	69	73%	22	23%	4	4%	0	0%
WATER STARGRASS	HETERANTHERA DUBIA	88	78%	55	63%	28	32%	5	6%	0	0%
COMMON WATERWEED	ELODEA CANADENSIS	88	78%	72	82%	14	16%	2	2%	0	0%
COONTAIL	CERATOPHYLLUM DEMERSUM	87	77%	57	66%	20	23%	7	8%	3	3%
WILD CELERY	VALLISNERIA AMERICANA	70	62%	56	80%	13	19%	1	1%	0	0%
SLENDER NAIAD	NAJAS FLEXILIS	37	33%	36	97%	1	3%	0	0%	0	0%
WHITESTEM PONDWEED	POTAMOGETON PRAELONGUS	22	19%	20	91%	2	9%	0	0%	0	0%
IVY-LEAVED DUCKWEED	LEMNA TRISULCA	19	17%	19	100%	0	0%	0	0%	0	0%
CLASPING-LEAF PONDWEED	POTAMOGETON RICHARDSONII	18	16%	18	100%	0	0%	0	0%	0	0%
WESTERN WATERWEED	ELODEA NUTALLI	17	15%	17	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	15	13%	15	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	POTAMOGETON ZOSTERA	11	10%	11	100%	0	0%	0	0%	0	0%
WATER PLANTAIN	ALISMA SUBCORDATUM	3	3%	3	100%	0	0%	0	0%	0	0%
MACROALGAE (NATIVE)	CHARA/NITELLA	3	3%	3	100%	0	0%	0	0%	0	0%
SMALL PONDWEED	POTAMOGETON PUSILLUS	3	3%	3	100%	0	0%	0	0%	0	0%
ROBBINS PONDWEED	POTAMOGETON ROBBINSII	2	2%	2	100%	0	0%	0	0%	0	0%
SMALL DUCKWEED	LEMNA MINOR	2	2%	2	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	STUCKENIA PECTINATA	1	1%	1	100%	0	0%	0	0%	0	0%
STARRY STONEWORT	NITELLOPSIS OBTUSA	1	1%	1	100%	0	0%	0	0%	0	0%
LARGELEAF PONDWEED	POTAMOGETON AMPLIFOLIUS	1	1%	1	100%	0	0%	0	0%	0	0%
FILAMENTOUS ALGAE	VARIOUS SPECIES	17	15%								
BENTHIC FILAMENTOUS ALGAE	LYNGBYA SP.	2	2%								
WHITE WATER LILY	NYMPHAEA ODORATA	1	1%								
PICKERELWEED	PONTEDERIA CORDATA	1	1%								

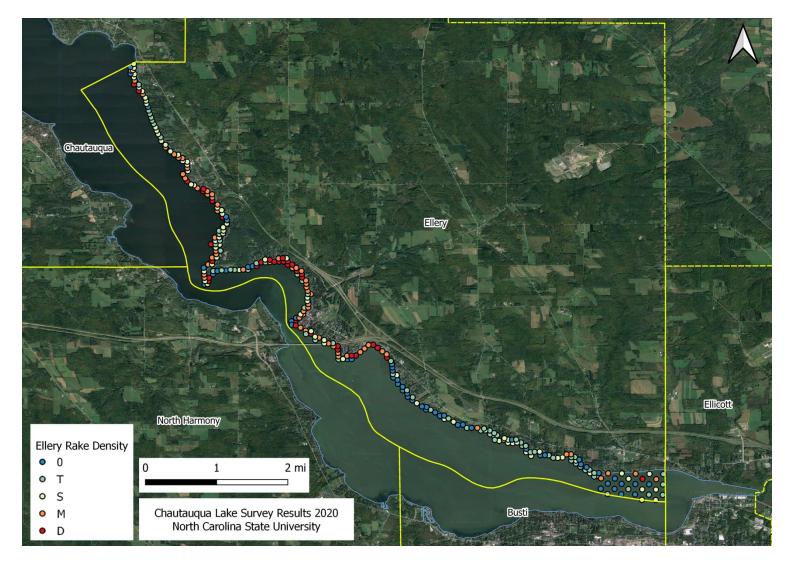


Figure 14: Presence and rake density data collected from point-intercept SAV rake toss survey for the Town of Ellery.

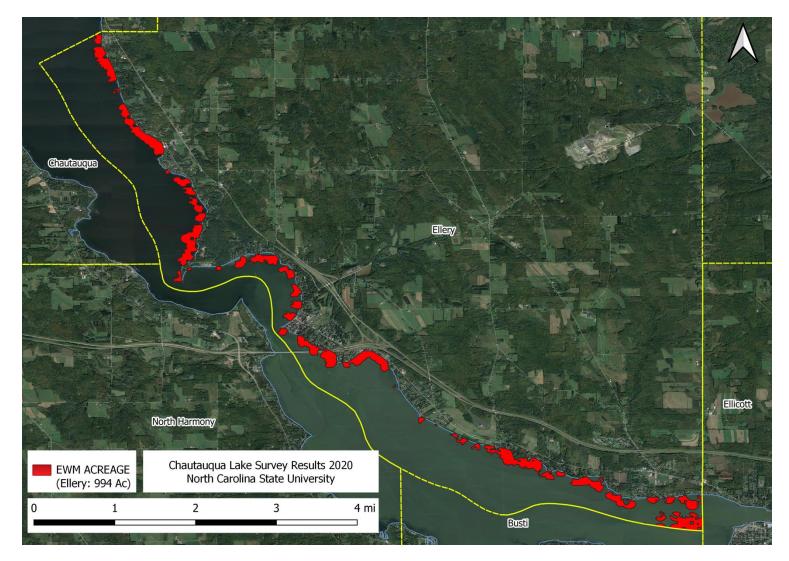


Figure 15: Interpolated estimates of Eurasian Watermilfoil plant bed extents found within the Town of Ellery.

Table 7: Results of Fall 2020 SAV Survey of Chautauqua Lake within the Town of Ellery. Non-native species are marked in red.

	TOWN O	F ELL	ERY								
SPECIES	6 PRESENT	то	TAL	TR	ACE	SP	ARSE	MOD	ERATE	DE	NSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		279									
TOTAL VEGETATED SITES		237	85%	67	28%	75	32%	60	25%	35	15%
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	151	54%	108	72%	36	24%	5	3%	2	1%
WATER STARGRASS	HETERANTHERA DUBIA	111	40%	79	71%	25	23%	7	6%	0	0%
WILD CELERY	VALLISNERIA AMERICANA	109	39%	85	78%	22	20%	1	1%	1	1%
COONTAIL	CERATOPHYLLUM DEMERSUM	106	38%	77	73%	18	17%	8	8%	3	3%
COMMON WATERWEED	ELODEA CANADENSIS	65	23%	53	82%	6	9%	4	6%	2	3%
WESTERN WATERWEED	ELODEA NUTALLI	57	20%	42	74%	9	16%	3	5%	3	5%
SLENDER NAIAD	NAJAS FLEXILIS	52	19%	43	83%	8	15%	1	2%	0	0%
IVY-LEAVED DUCKWEED	LEMNA TRISULCA	44	16%	42	95%	2	5%	0	0%	0	0%
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	25	9%	24	96%	1	4%	0	0%	0	0%
WHITESTEM PONDWEED	POTAMOGETON PRAELONGUS	24	9%	15	63%	7	29%	2	8%	0	0%
CURLY-LEAF PONDWEED	POTAMOGETON CRISPUS	13	5%	12	92%	1	8%	0	0%	0	0%
WATER PLANTAIN	ALISMA SUBCORDATUM	6	2%	6	100%	0	0%	0	0%	0	0%
MACROALGAE (NATIVE)	CHARA/NITELLA	6	2%	6	100%	0	0%	0	0%	0	0%
CLASPING-LEAF PONDWEED	POTAMOGETON RICHARDSONII	5	2%	5	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	POTAMOGETON ZOSTERA	4	1%	4	100%	0	0%	0	0%	0	0%
STARRY STONEWORT	NITELLOPSIS OBTUSA	3	1%	3	100%	0	0%	0	0%	0	0%
LEAFY PONDWEED	POTAMOGETON FOLIOSUS	2	1%	2	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	STUCKENIA PECTINATA	2	1%	2	100%	0	0%	0	0%	0	0%
SMALL PONDWEED	POTAMOGETON PUSILLUS	1	0%	1	100%	0	0%	0	0%	0	0%
BRITTLE NAIAD	NAJAS MAJOR	1	0%	1	1%	0	0%	0	0%	0	0%
JAPANESE KNOTWEED	POLYGONUM CUSPIDATUM	10	4%								
BENTHIC FILAMENTOUS ALGAE	LYNGBYA SP.	10	4%								
FILAMENTOUS ALGAE	VARIOUS SPECIES	7	3%								
WHITE WATER LILY	NYMPHAEA ODORATA	6	2%								
WATER WILLOW	JUSTICIA AMERICANA	6	2%								
CATTAIL	TYPHA LATIFOLIA	4	1%								
YELLOW WATER LILY	NUPHAR VARIEGATA	2	1%								
COMMON REED	PHRAGMITES AUSTRALIS	2	1%								
PICKERELWEED	PONTEDERIA CORDATA	1	0%								

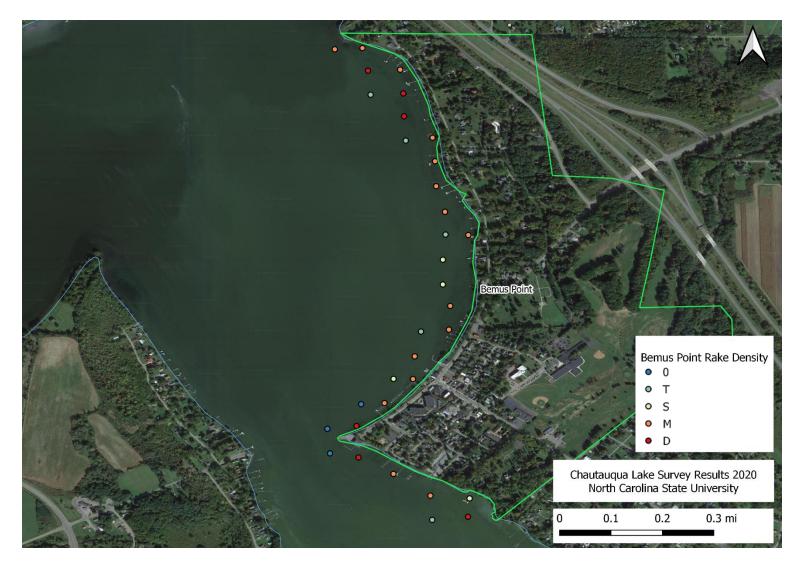


Figure 16: Presence and rake density data collected from point-intercept SAV rake toss survey for the Village of Bemus Point.

Table 8: Results of Fall 2020 SAV Survey of Chautauqua Lake within the Village of Bemus Point. Non-native species are marked in red.

	VILLAGE OF	BEM	US PO	ΟΙΝΤ	-						
SPECI	ES PRESENT	тс	TAL	Т	RACE	SP	ARSE	MOD	ERATE	DE	ENSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		34									
TOTAL VEGETATED SITES		30	88%	5	17%	5	17%	14	47%	6	20%
COONTAIL	CERATOPHYLLUM DEMERSUM	25	74%	16	64%	7	28%	2	8%	0	0%
IVY-LEAVED DUCKWEED	LEMNA TRISULCA	17	50%	17	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	ELODEA CANADENSIS	16	47%	11	69%	2	13%	3	19%	0	0%
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	14	41%	10	71%	2	14%	2	14%	0	0%
WATER STARGRASS	HETERANTHERA DUBIA	12	35%	9	75%	3	25%	0	0%	0	0%
WILD CELERY	VALLISNERIA AMERICANA	12	35%	9	75%	2	17%	1	8%	0	0%
WESTERN WATERWEED	ELODEA NUTALLI	9	26%	8	89%	1	11%	0	0%	0	0%
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	9	26%	9	100%	0	0%	0	0%	0	0%
SLENDER NAIAD	NAJAS FLEXILIS	7	21%	7	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	POTAMOGETON CRISPUS	6	18%	5	83%	1	17%	0	0%	0	0%
CLASPING-LEAF PONDWEED	POTAMOGETON RICHARDSONII	2	6%	2	100%	0	0%	0	0%	0	0%
WHITESTEM PONDWEED	POTAMOGETON PRAELONGUS	1	3%	1	100%	0	0%	0	0%	0	0%
WATER WILLOW	JUSTICIA AMERICANA	1	3%								
JAPANESE KNOTWEED	POLYGONUM CUSPIDATUM	1	3%								

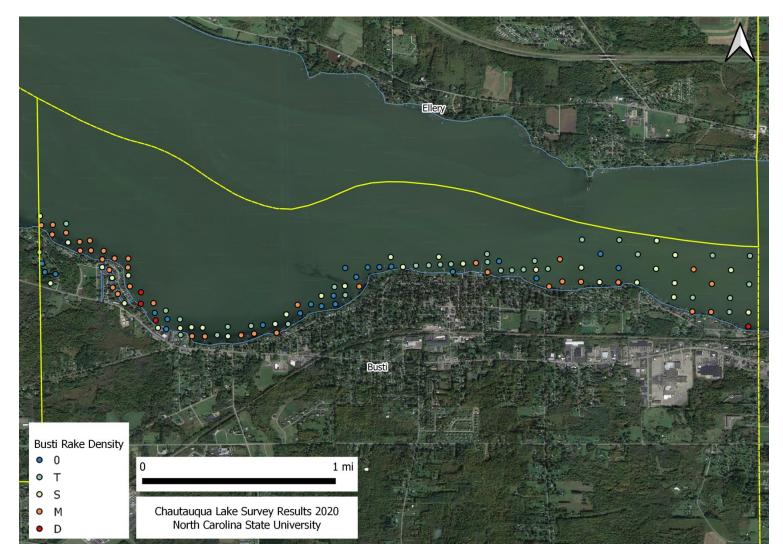


Figure 17: Presence and rake density data collected from point-intercept SAV rake toss survey for the Town of Busti.

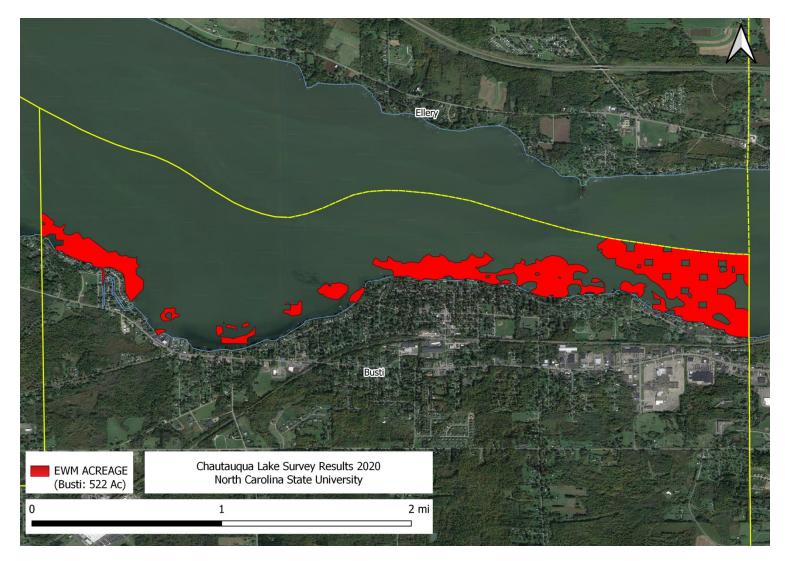


Figure 18: Interpolated estimates of Eurasian Watermilfoil plant bed extents found within the Town of Busti.

Table 9: SAV species recorded during the Fall 2020 Survey of Chautauqua Lake (Town of Busti). Non-native species are marked in red.

	TOWN O	F BU	STI								
SPECIE	S PRESENT	то	TAL	TF	RACE	SP	ARSE	MOD	ERATE	DE	NSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		123									
TOTAL VEGETATED SITES		102	83%	31	30%	31	30%	36	35%	4	4%
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	72	59%	50	69%	17	24%	5	7%	0	0%
COONTAIL	CERATOPHYLLUM DEMERSUM	42	34%	27	64%	13	31%	2	5%	0	0%
WATER STARGRASS	HETERANTHERA DUBIA	39	32%	29	74%	7	18%	3	8%	0	0%
WESTERN WATERWEED	ELODEA NUTALLI	35	28%	29	83%	3	9%	2	6%	1	3%
WILD CELERY	VALLISNERIA AMERICANA	33	27%	14	42%	12	36%	6	18%	1	3%
SLENDER NAIAD	NAJAS FLEXILIS	29	24%	21	72%	6	21%	2	7%	0	0%
COMMON WATERWEED	ELODEA CANADENSIS	24	20%	18	75%	6	25%	0	0%	0	0%
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	3	2%	2	67%	1	33%	0	0%	0	0%
CURLY-LEAF PONDWEED	POTAMOGETON CRISPUS	3	2%	2	67%	1	33%	0	0%	0	0%
IVY-LEAVED DUCKWEED	LEMNA TRISULCA	2	2%	2	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	POTAMOGETON ZOSTERA	1	1%	1	100%	0	0%	0	0%	0	0%
STARRY STONEWORT	NITELLOPSIS OBTUSA	1	1%	1	100%	0	0%	0	0%	0	0%
BRITTLE NAIAD	NAJAS MAJOR	1	1%	1	100%	0	0%	0	0%	0	0%
CLASPING-LEAF PONDWEED	POTAMOGETON RICHARDSONII	1	1%	1	100%	0	0%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	LYNGBYA SP.	6	5%								
WHITE WATER LILY	NYMPHAEA ODORATA	2	2%								
YELLOW WATER LILY	NUPHAR VARIEGATA	1	1%								
CATTAIL	TYPHA LATIFOLIA	1	1%								

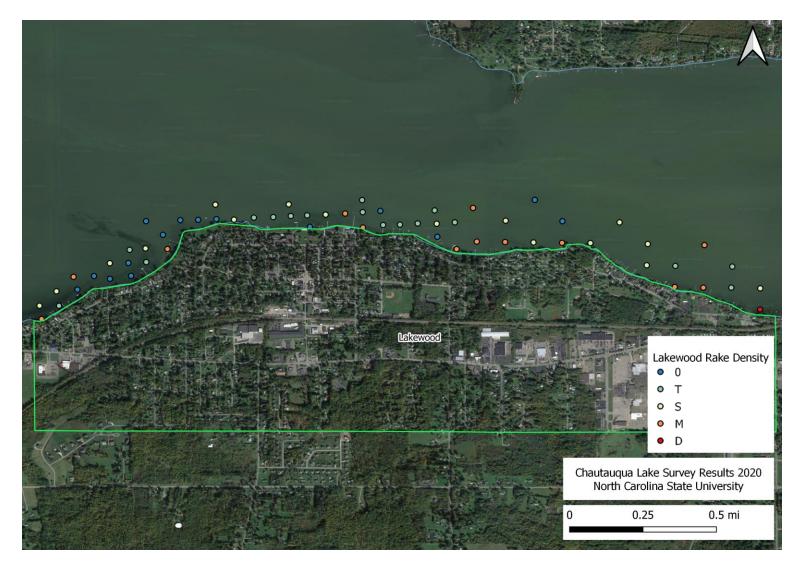


Figure 19: Presence and rake density data collected from point-intercept SAV rake toss survey for the Village of Lakewood.

Table 10: SAV species recorded during the Fall 2020 Survey of Chautauqua Lake (Village of Lakewood). Non-native species are marked in red.

	VILLAGE OF L	AK	EWO	OD							
SPECIES	PRESENT	тс	TAL	TF	RACE	SP/	ARSE	MODE	RATE	DE	NSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		61									
TOTAL VEGETATED SITES		47	77%	17	36%	16	34%	13	28%	1	2%
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	38	62%	25	66%	10	26%	3	8%	0	0%
COONTAIL	CERATOPHYLLUM DEMERSUM	16	26%	14	88%	2	13%	0	0%	0	0%
WATER STARGRASS	HETERANTHERA DUBIA	15	25%	12	80%	2	13%	1	7%	0	0%
SLENDER NAIAD	NAJAS FLEXILIS	14	23%	11	79%	3	21%	0	0%	0	0%
WESTERN WATERWEED	ELODEA NUTALLI	12	20%	10	83%	1	8%	1	8%	0	0%
WILD CELERY	VALLISNERIA AMERICANA	9	15%	6	67%	2	22%	1	11%	0	0%
COMMON WATERWEED	ELODEA CANADENSIS	7	11%	6	86%	1	14%	0	0%	0	0%
CLASPING-LEAF PONDWEED	POTAMOGETON RICHARDSONII	1	2%	1	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	1	2%	1	100%	0	0%	0	0%	0	0%
STARRY STONEWORT	NITELLOPSIS OBTUSA	1	2%	1	100%	0	0%	0	0%	0	0%
BRITTLE NAIAD	NAJAS MAJOR	1	2%	1	100%	0	0%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	LYNGBYA SP.	3	5%								
YELLOW WATER LILY	NUPHAR VARIEGATA	1	2%								
WHITE WATER LILY	NYMPHAEA ODORATA	1	2%								

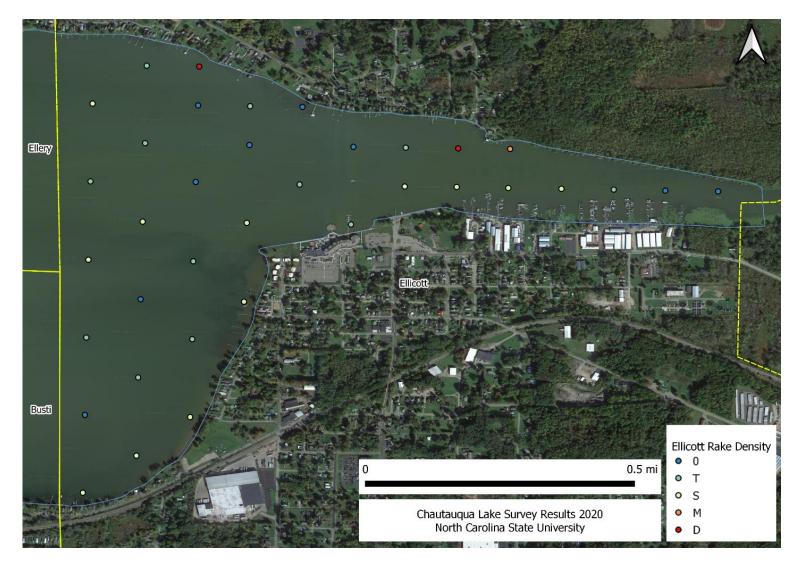


Figure 20: Presence and rake density data collected from point-intercept SAV rake toss survey for the Town of Ellicott.

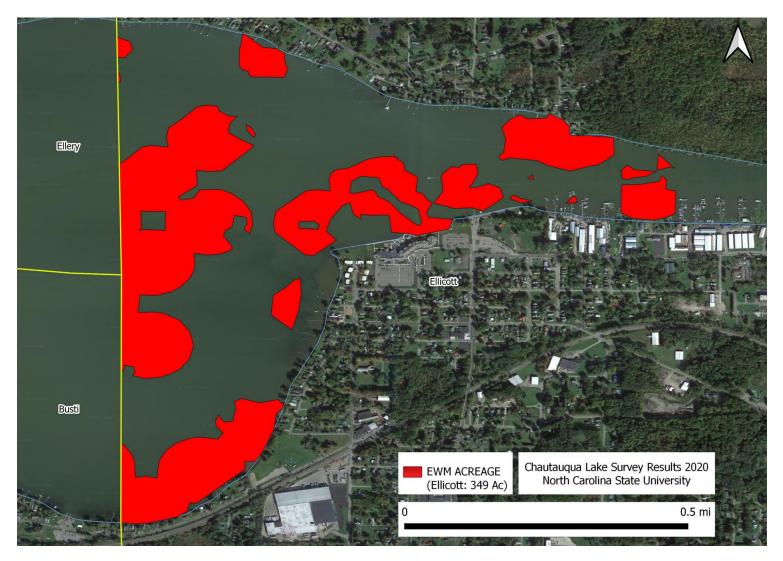


Figure 21: Interpolated estimates of Eurasian Watermilfoil plant bed extents found within the town of Ellicott.

	TOWN O	F ELI	LICOT	Т							
SPECI	ES PRESENT	тс	TAL	TF	RACE	SP	ARSE	MOD	ERATE	DE	INSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		35									
TOTAL VEGETATED SITES		27	77%	12	44%	12	44%	1	4%	2	7%
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	18	51%	14	78%	4	22%	0	0%	0	0%
WESTERN WATERWEED	ELODEA NUTALLI	14	40%	10	71%	3	21%	1	7%	0	0%
WATER STARGRASS	HETERANTHERA DUBIA	10	29%	9	90%	1	10%	0	0%	0	0%
BRITTLE NAIAD	NAJAS MAJOR	7	20%	7	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	ELODEA CANADENSIS	6	17%	6	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	POTAMOGETON CRISPUS	5	14%	5	100%	0	0%	0	0%	0	0%
COONTAIL	CERATOPHYLLUM DEMERSUM	4	11%	3	75%	1	25%	0	0%	0	0%
SLENDER NAIAD	NAJAS FLEXILIS	4	11%	4	100%	0	0%	0	0%	0	0%
WILD CELERY	VALLISNERIA AMERICANA	3	9%	3	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	POTAMOGETON ZOSTERA	1	3%	1	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	1	3%	1	100%	0	0%	0	0%	0	0%
WHITE WATER LILY	NYMPHAEA ODORATA	4	11%								
YELLOW WATER LILY	NUPHAR VARIEGATA	4	11%								

Table 11: Results of Fall 2020 SAV Survey of Chautauqua Lake within the Town of Ellicott. Non-native species are marked in red.

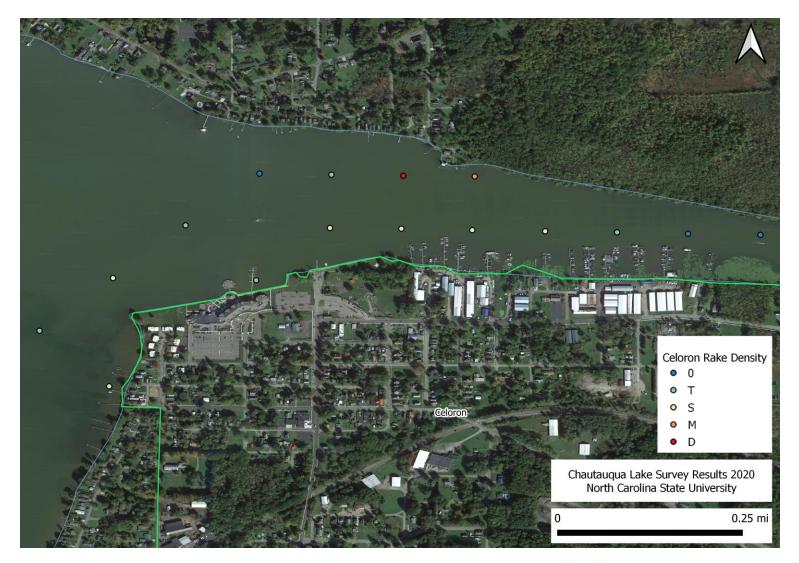


Figure 22: Presence and rake density data collected from point-intercept SAV rake toss survey for the Village of Celoron.

Table 12: Results of Fall 2020 SAV Survey of Chautauqua Lake within the Village of Celoron. Non-native species are marked in red.

	VILLAGE O	FCE	ELOR	ON							
SPECI	ES PRESENT	тс	TAL	Т	RACE	SP	ARSE	MOD	ERATE	DE	NSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		16									
TOTAL VEGETATED SITES		13	81%	5	38%	6	46%	1	8%	1	8%
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	9	56%	8	89%	1	11%	0	0%	0	0%
WESTERN WATERWEED	ELODEA NUTALLI	7	44%	4	57%	3	43%	0	0%	0	0%
BRITTLE NAIAD	NAJAS MAJOR	5	31%	5	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	ELODEA CANADENSIS	4	25%	4	100%	0	0%	0	0%	0	0%
WATER STARGRASS	HETERANTHERA DUBIA	3	19%	2	67%	1	33%	0	0%	0	0%
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	3	19%	3	100%	0	0%	0	0%	0	0%
SLENDER NAIAD	NAJAS FLEXILIS	3	19%	3	100%	0	0%	0	0%	0	0%
WILD CELERY	VALLISNERIA AMERICANA	2	13%	2	100%	0	0%	0	0%	0	0%
COONTAIL	CERATOPHYLLUM DEMERSUM	2	13%	2	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	POTAMOGETON ZOSTERA	1	6%	1	100%	0	0%	0	0%	0	0%
YELLOW WATER LILY	NUPHAR VARIEGATA	4	25%								
WHITE WATER LILY	NYMPHAEA ODORATA	4	25%								

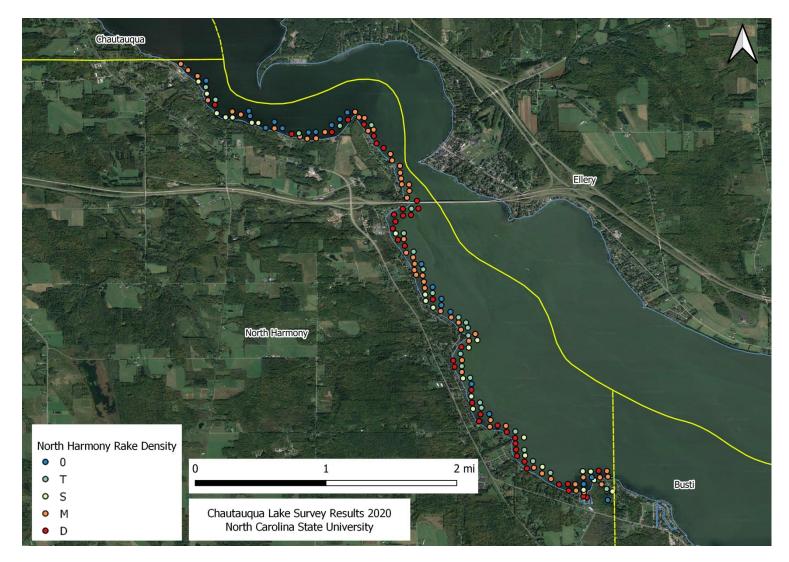


Figure 23: Presence and rake density data collected from point-intercept SAV rake toss survey for the Town of North Harmony.

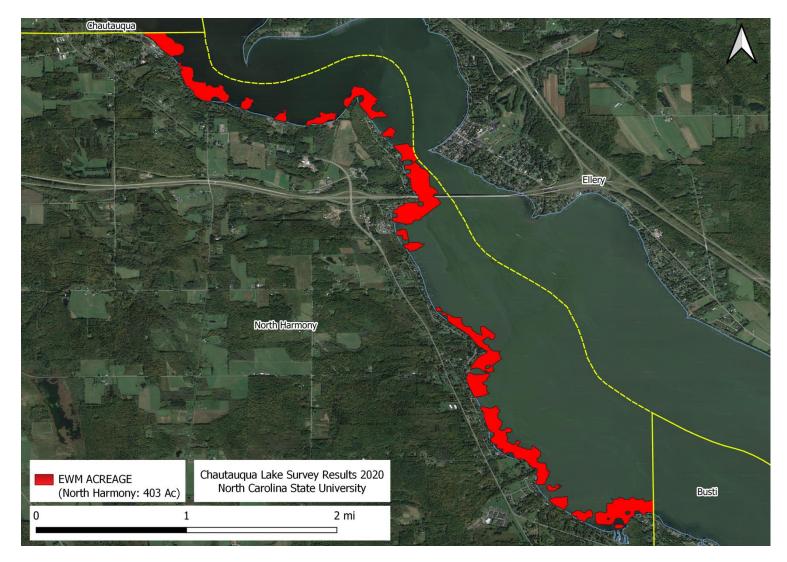


Figure 24: Interpolated estimates of Eurasian Watermilfoil plant bed extents found within the Town of North Harmony.

	TOWN OF NO	RTH H	IARM	ON۱	(
SPECIES	S PRESENT	то	TAL	TF	RACE	SP	ARSE	MOD	ERATE	DE	INSE
COMMON NAME	SCIENTIFIC NAME	#	%	#	%	#	%	#	%	#	%
TOTAL SURVEYED SITES		162									
TOTAL VEGETATED SITES		144	89%	24	17%	24	17%	56	39%	40	28
COONTAIL	CERATOPHYLLUM DEMERSUM	102	63%	77	75%	18	18%	6	6%	1	19
EURASIAN WATER MILFOIL	MYRIOPHYLLUM SPICATUM	87	54%	72	83%	14	16%	1	1%	0	0%
WATER STARGRASS	HETERANTHERA DUBIA	79	49%	36	46%	29	37%	11	14%	3	49
WILD CELERY	VALLISNERIA AMERICANA	63	39%	50	79%	10	16%	3	5%	0	0%
COMMON WATERWEED	ELODEA CANADENSIS	55	34%	43	78%	8	15%	2	4%	2	49
WESTERN WATERWEED	ELODEA NUTALLI	53	33%	37	70%	8	15%	4	8%	4	89
IVY-LEAVED DUCKWEED	LEMNA TRISULCA	36	22%	36	100%	0	0%	0	0%	0	09
SLENDER NAIAD	NAJAS FLEXILIS	30	19%	25	83%	3	10%	2	7%	0	09
CURLY-LEAF PONDWEED	POTAMOGETON CRISPUS	17	10%	17	100%	0	0%	0	0%	0	09
CLASPING-LEAF PONDWEED	POTAMOGETON RICHARDSONII	8	5%	8	100%	0	0%	0	0%	0	09
SOUTHERN NAIAD	NAJAS GUADALUPENSIS	7	4%	7	100%	0	0%	0	0%	0	09
STARRY STONEWORT	NITELLOPSIS OBTUSA	5	3%	4	80%	1	20%	0	0%	0	09
SMALL DUCKWEED	LEMNA MINOR	5	3%	5	100%	0	0%	0	0%	0	09
WHITESTEM PONDWEED	POTAMOGETON PRAELONGUS	4	2%	4	100%	0	0%	0	0%	0	09
SMALL PONDWEED	POTAMOGETON PUSILLUS	1	1%	1	100%	0	0%	0	0%	0	09
SAGO PONDWEED	STUCKENIA PECTINATA	1	1%	1	100%	0	0%	0	0%	0	09
WHITE WATER LILY	NYMPHAEA ODORATA	29	18%								
JAPANESE KNOTWEED	POLYGONUM CUSPIDATUM	17	10%								
FILAMENTOUS ALGAE	VARIOUS SPECIES	10	6%								
YELLOW WATER LILY	NUPHAR VARIEGATA	10	6%								
BENTHIC FILAMENTOUS ALGAE	LYNGBYA SP.	4	2%								
BULRUSH	SCIRPUS SP.	2	1%								
WATER WILLOW	JUSTICIA AMERICANA	1	1%								
CATTAIL	TYPHA LATIFOLIA	1	1%								
COMMON REED	PHRAGMITES AUSTRALIS	1	1%								
PICKERELWEED	PONTEDERIA CORDATA	1	1%								

Table 13: Results of Fall 2020 SAV Survey of Chautauqua Lake within the Town of North Harmony. Non-native species are marked in red.

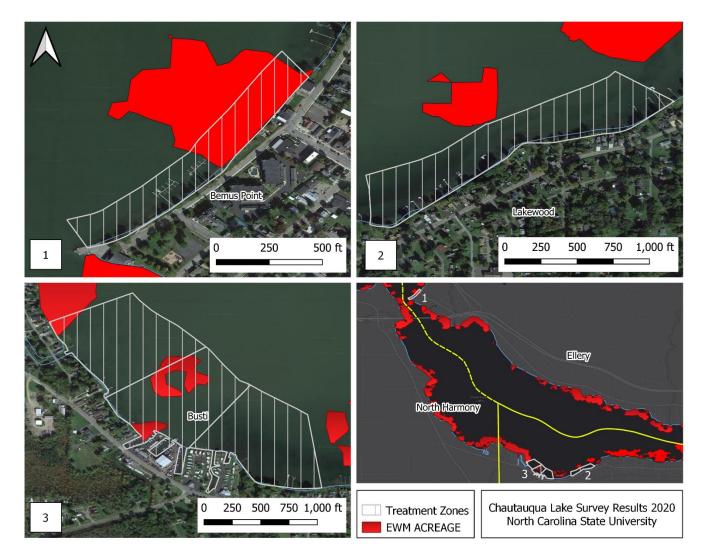


Figure 25: Interpolated estimates of Eurasian Watermilfoil plant bed extents found within the 2020 treatment zones (Total treated acreage; *Bemus Point: 7.0 Ac, Lakewood: 20.2 Ac, Busti: 29.2 Ac*).

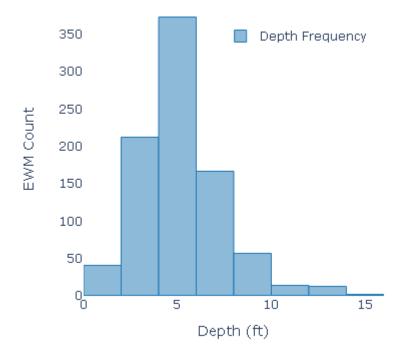


Figure 25: Histogram showing frequency of depth profiles where Eurasian Watermilfoil was identified.



Figure 26: Examples of rakes with 'dense' abundance ratings that are comprised of both native and non-native SAV.



Figure 27: Dense SAV growth is impacting recreational activities at Chautauqua Lake such as fishing (Left) and boating (Right).



Figure 28: Examples of native SAV populations exhibiting high species richness in Chautauqua Lake's north basin.