Chautauqua Lake SAV Survey Results
August 2025

Tables and Figures

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

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

Table 2: Submersed aquatic vegetation (SAV) species recorded during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Whole Lake

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**1076**									
TOTAL VEGETATED SITES		**942**	**88%**	**181**	**19%**	**386**	**41%**	**244**	**26%**	**131**	**14%**
WESTERN WATERWEED	*ELODEA NUTALLI*	672	62%	443	66%	182	27%	39	6%	8	1%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	630	59%	519	82%	99	16%	10	2%	2	<1%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	462	43%	385	83%	67	15%	9	2%	1	<1%
WATER STARGRASS	*HETERANTHERA DUBIA*	413	38%	363	88%	43	10%	7	2%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	386	36%	348	90%	37	10%	1	<1%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	298	28%	296	99%	2	1%	0	0%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	236	22%	227	96%	9	4%	0	0%	0	0%
WHITESTEM PONDWEED	*POTAMOGETON PRAELONGUS*	168	16%	148	88%	19	11%	1	1%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	109	10%	109	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	*POTAMOGETON ZOSTERA*	64	6%	61	95%	3	5%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	61	6%	58	95%	2	3%	1	2%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	40	4%	40	100%	0	0%	0	0%	0	0%
CLASPING-LEAF PONDWEED	*POTAMOGETON RICHARDSONII*	36	3%	31	86%	5	14%	0	0%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	34	3%	34	100%	0	0%	0	0%	0	0%
MACROALGAE (NATIVE)	*CHARA/NITELLA*	25	2%	25	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	*STUCKENIA PECTINATA*	21	2%	19	90%	2	10%	0	0%	0	0%
STARRY STONEWORT	*NITELLOPSIS OBTUSA*	17	2%	14	82%	2	12%	1	6%	0	0%
WATER PLANTAIN	*ALISMA SUBCORDATUM*	16	1%	16	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	*POTAMOGETON CRISPUS*	15	1%	15	100%	0	0%	0	0%	0	0%
BRITTLE NAIAD	*NAJAS MINOR*	2	<1%	2	100%	0	0%	0	0%	0	0%
LARGELEAF PONDWEED	*POTAMOGETON AMPLIFOLIUS*	2	<1%	2	100%	0	0%	0	0%	0	0%
AMERICAN PONDWEED	*POTAMOGETON NODOSUS*	1	<1%	1	100%	0	0%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	*LYNGBYA SPP.*	89	8%								
FILAMENTOUS ALGAE	*VARIOUS SPECIES*	52	5%								
WATER WILLOW	*JUSTICIA AMERICANA*	41	4%								
PICKERELWEED	*PONTEDERIA CORDATA*	39	4%								
YELLOW WATER LILY	*NUPHAR VARIGATA*	16	1%								
WHITE WATER LILY	*NYMPHAEA ODORATA*	14	1%								
SMALL DUCKWEED	*LEMNA MINOR*	6	1%								

Table 3: Mean water quality measurements recorded Chautauqua Lake at the time of the fall 2025 survey. Parameters followed by an asterisk (*) are those that significantly differ by basin according to a Student's T test (a = 0.05). Sampling point locations are provided in Figure 2.

		Lake Region	
Parameter	**Whole Lake**	**North Basin**	**South Basin**
Surveyed Sites	29	16	13
Water Temperature (°C)	25.7	25.7	25.6
pH*	9.0	8.8	9.3
Conductivity (uS/cm)	220.4	218.8	222.5
D.O (mg/L)	10.0	9.9	10.1
D.O. (% sat)	121.7	120.5	123.2
Chlorophyll A (ppb)	6.2	7.2	5.0
Secchi depth (m) *	1.3	1.8	0.8
Site Depth (m) *	2.0	2.2	1.7

Table 4: Submersed aquatic vegetation (SAV) recorded in the Town of Chautauqua during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Town of Chautauqua

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**372**									
TOTAL VEGETATED SITES		**341**	**92%**	**64**	**19%**	**157**	**46%**	**86**	**25%**	**34**	**10%**
WATER STARGRASS	*HETERANTHERA DUBIA*	204	55%	184	90%	20	10%	0	0%	0	0%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	203	55%	181	89%	20	10%	2	1%	0	0%
WESTERN WATERWEED	*ELODEA NUTTALLI*	200	54%	166	83%	34	17%	0	0%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	191	51%	170	89%	20	10%	1	1%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	160	43%	156	98%	4	3%	0	0%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	158	42%	157	99%	1	1%	0	0%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	133	36%	118	89%	14	11%	0	0%	1	1%
WHITESTEM PONDWEED	*POTAMOGETON PRAELONGUS*	119	32%	106	89%	12	10%	1	1%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	77	21%	77	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	*POTAMOGETON ZOSTERA*	54	15%	52	96%	2	4%	0	0%	0	0%
CLASPING-LEAF PONDWEED	*POTAMOGETON RICHARDSONII*	35	9%	31	89%	4	11%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	32	9%	30	94%	2	6%	0	0%	0	0%
MACROALGAE (NATIVE)	*CHARA/NITELLA SP.*	17	5%	17	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	*STUCKENIA PECTINATA*	11	3%	9	82%	2	18%	0	0%	0	0%
STARRY STONEWORT	*NITELLOPSIS OBTUSA*	11	3%	9	82%	2	18%	0	0%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	10	3%	10	100%	0	0%	0	0%	0	0%
WATER PLANTAIN	*ALISMA SUBCORDATUM*	8	2%	8	100%	0	0%	0	0%	0	0%
LARGELEAF PONDWEED	*POTAMOGETON AMPLIFOLIUS*	2	1%	2	100%	0	0%	0	0%	0	0%
BRITTLE NAIAD	*NAJAS MINOR*	1	<1%	1	100%	0	0%	0	0%	0	0%
WHITE WATER CROWFOOT	*RANUNCULUS AQUATILIS*	1	<1%	1	100%	0	0%	0	0%	0	0%
AMERICAN PONDWEED	*POTAMOGETON NODOSUS*	1	<1%	1	100%	0	0%	0	0%	0	0%
FILAMENTOUS ALGAE	*VARIOUS SPECIES*	31	8%								
WHITE WATER LILY	*NYMPHAEA ODORATA*	27	7%								
YELLOW WATER LILY	*NUPHAR VARIGATA*	13	3%								
WATER WILLOW	*JUSTICIA AMERICANA*	7	2%								
PICKERELWEED	*PONTEDERIA CORDATA*	3	1%								
BENTHIC FILAMENTOUS ALGAE	*MICROSERIA SP.*	3	1%								

Table 5: Submersed aquatic vegetation (SAV) species recorded in the Village of Mayville during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Village of Mayville

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**121**									
TOTAL VEGETATED SITES		**114**	**94%**	**30**	**26%**	**54**	**47%**	**28**	**25%**	**2**	**2%**
WATER STARGRASS	*HETERANTHERA DUBIA*	75	62%	68	91%	7	9%	0	0%	0	0%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	72	60%	64	89%	7	10%	1	1%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	70	58%	70	100%	0	0%	0	0%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	65	54%	57	88%	8	12%	0	0%	0	0%
WESTERN WATERWEED	*ELODEA NUTTALLI*	55	45%	51	93%	4	7%	0	0%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	52	43%	52	100%	0	0%	0	0%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	36	30%	31	86%	5	14%	0	0%	0	0%
WHITESTEM PONDWEED	*POTAMOGETON PRAELONGUS*	26	21%	23	88%	3	12%	0	0%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	11	9%	11	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	*POTAMOGETON ZOSTERA*	7	6%	6	86%	1	14%	0	0%	0	0%
STARRY STONEWORT	*NITELLOPSIS OBTUSA*	6	5%	5	83%	1	17%	0	0%	0	0%
MACROALGAE (NATIVE)	*CHARA/NITELLA SP.*	6	5%	6	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	5	4%	5	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	5	4%	5	100%	0	0%	0	0%	0	0%
CLASPING-LEAF PONDWEED	*POTAMOGETON RICHARDSONII*	4	3%	4	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	*STUCKENIA PECTINATA*	3	2%	2	67%	1	33%	0	0%	0	0%
WATER PLANTAIN	*ALISMA SUBCORDATUM*	2	2%	2	100%	0	0%	0	0%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	1	1%	1	100%	0	0%	0	0%	0	0%
AMERICAN PONDWEED	*POTAMOGETON NODOSUS*	1	1%	1	100%	0	0%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	*MICROSERIA SP.*	16	13%								
FILAMENTOUS ALGAE	*VARIOUS SPECIES*	11	9%								
YELLOW WATER LILY	*NUPHAR VARIGATA*	2	2%								
WHITE WATER LILY	*NYMPHAEA ODORATA*	1	1%								

Table 6: Submersed aquatic vegetation (SAV) species recorded in the Town of Ellery during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Town of Ellery

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**323**									
TOTAL VEGETATED SITES		**263**	**81%**	**57**	**22%**	**105**	**40%**	**67**	**25%**	**34**	**13%**
WESTERN WATERWEED	*ELODEA NUTTALLI*	172	53%	106	62%	53	31%	12	7%	1	1%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	158	49%	122	77%	30	19%	4	3%	2	1%
WILD CELERY	*VALLISNERIA AMERICANA*	104	32%	91	88%	13	13%	0	0%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	100	31%	75	75%	21	21%	4	4%	0	0%
WATER STARGRASS	*HETERANTHERA DUBIA*	97	30%	84	87%	11	11%	2	2%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	52	16%	52	100%	0	0%	0	0%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	48	15%	44	92%	4	8%	0	0%	0	0%
WHITESTEM PONDWEED	*POTAMOGETON PRAELONGUS*	41	13%	35	85%	6	15%	0	0%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	20	6%	20	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	17	5%	16	94%	0	0%	1	6%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	16	5%	16	100%	0	0%	0	0%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	13	4%	13	100%	0	0%	0	0%	0	0%
WATER PLANTAIN	*ALISMA SUBCORDATUM*	8	2%	8	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	*STUCKENIA PECTINATA*	7	2%	7	100%	0	0%	0	0%	0	0%
MACROALGAE (NATIVE)	*CHARA/NITELLA*	6	2%	6	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	*POTAMOGETON CRISPUS*	4	1%	4	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	*POTAMOGETON ZOSTERA*	3	1%	3	100%	0	0%	0	0%	0	0%
STARRY STONEWORT	*NITELLOPSIS OBTUSA*	1	<1%	1	100%	0	0%	0	0%	0	0%
CLASPING-LEAF PONDWEED	*POTAMOGETON RICHARDSONII*	1	<1%	0	0%	1	100%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	*MICROSERIA SP.*	50	15%								
FILAMENTOUS ALGAE	*VARIOUS SPECIES*	18	6%								
WATER WILLOW	*JUSTICIA AMERICANA*	5	2%								
YELLOW WATER LILY	*NUPHAR VARIGATA*	3	1%								
WHITE WATER LILY	*NYMPHAEA ODORATA*	2	1%								

Table 7: Submersed aquatic vegetation (SAV) species recorded in the Village of Bemus Point during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Village of Bemus Point

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**32**									
TOTAL VEGETATED SITES		**21**	**66%**	**12**	**57%**	**5**	**24%**	**2**	**10%**	**2**	**10%**
WESTERN WATERWEED	*ELODEA NUTTALLI*	17	53%	14	82%	3	18%	0	0%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	13	41%	11	85%	2	15%	0	0%	0	0%
WATER STARGRASS	*HETERANTHERA DUBIA*	9	28%	7	78%	2	22%	0	0%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	8	25%	8	100%	0	0%	0	0%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	4	13%	3	75%	1	25%	0	0%	0	0%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	3	9%	3	100%	0	0%	0	0%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	3	9%	3	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	1	3%	1	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	1	3%	1	100%	0	0%	0	0%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	1	3%	1	100%	0	0%	0	0%	0	0%
WHITESTEM PONDWEED	*POTAMOGETON PRAELONGUS*	1	3%	1	100%	0	0%	0	0%	0	0%
WATER PLANTAIN	*ALISMA SUBCORDATUM*	1	3%	1	100%	0	0%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	*MICROSERIA SP.*	23	72%								
YELLOW WATER LILY	*NUPHAR VARIGATA*	1	3%								
WHITE WATER LILY	*NYMPHAEA ODORATA*	1	3%								
FILAMENTOUS ALGAE	*VARIOUS SPECIES*	1	3%								

Table 8: Submersed aquatic vegetation (SAV) species recorded in the Town of Busti during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Town of Busti

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**144**									
TOTAL VEGETATED SITES		**135**	**94%**	**22**	**16%**	**61**	**45%**	**37**	**27%**	**15**	**11%**
WESTERN WATERWEED	*ELODEA NUTTALLI*	124	86%	76	61%	36	29%	11	9%	1	1%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	114	79%	80	70%	31	27%	3	3%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	95	66%	83	87%	11	12%	1	1%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	30	21%	30	100%	0	0%	0	0%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	26	18%	24	92%	2	8%	0	0%	0	0%
WATER STARGRASS	*HETERANTHERA DUBIA*	24	17%	22	92%	2	8%	0	0%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	9	6%	9	100%	0	0%	0	0%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	5	3%	5	100%	0	0%	0	0%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	4	3%	4	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	*POTAMOGETON CRISPUS*	3	2%	3	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	3	2%	3	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	2	1%	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%
SMALL DUCKWEED	*LEMNA MINOR*	4	3%								
BENTHIC FILAMENTOUS ALGAE	*LYNGBYA SPP.*	1	1%								

Table 9: Submersed aquatic vegetation (SAV) species recorded in the Village of Lakewood during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Village of Lakewood

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**81**									
TOTAL VEGETATED SITES		**75**	**93%**	**9**	**12%**	**34**	**45%**	**20**	**27%**	**12**	**16%**
WESTERN WATERWEED	*ELODEA NUTTALLI*	70	86%	40	57%	23	33%	6	9%	1	1%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	67	83%	45	67%	22	33%	0	0%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	53	65%	48	91%	5	9%	0	0%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	16	20%	16	100%	0	0%	0	0%	0	0%
WATER STARGRASS	*HETERANTHERA DUBIA*	13	16%	13	100%	0	0%	0	0%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	6	7%	6	100%	0	0%	0	0%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	4	5%	4	100%	0	0%	0	0%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	4	5%	4	100%	0	0%	0	0%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	3	4%	3	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	2	2%	2	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	2	2%	2	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	*POTAMOGETON CRISPUS*	1	1%	1	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	*POTAMOGETON ZOSTERA*	1	1%	1	100%	0	0%	0	0%	0	0%
SMALL DUCKWEED	*LEMNA MINOR*	3	4%								
BENTHIC FILAMENTOUS ALGAE	*MICROSERIA SP.*	1	1%								

Table 10: Submersed aquatic vegetation (SAV) species recorded in the Town of Ellicott during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Town of Ellicott

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**60**									
TOTAL VEGETATED SITES		**58**	**97%**	**9**	**16%**	**9**	**16%**	**13**	**22%**	**27**	**47%**
WESTERN WATERWEED	*ELODEA NUTTALLI*	58	97%	22	38%	20	34%	10	17%	6	10%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	51	85%	45	88%	6	12%	0	0%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	43	72%	35	81%	6	14%	2	5%	0	0%
WATER STARGRASS	*HETERANTHERA DUBIA*	28	47%	26	93%	2	7%	0	0%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	11	18%	11	100%	0	0%	0	0%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	11	18%	11	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	7	12%	7	100%	0	0%	0	0%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	5	8%	5	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	*POTAMOGETON CRISPUS*	4	7%	4	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	3	5%	3	100%	0	0%	0	0%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	2	3%	2	100%	0	0%	0	0%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	2	3%	2	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	*POTAMOGETON ZOSTERA*	1	2%	1	100%	0	0%	0	0%	0	0%
BRITTLE NAIAD	*NAJAS MINOR*	1	2%	1	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	*STUCKENIA PECTINATA*	1	2%	1	100%	0	0%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	*MICROSERIA SP.*	3	5%								
SMALL DUCKWEED	*LEMNA MINOR*	2	3%								
WHITE WATER LILY	*NYMPHAEA ODORATA*	1	2%								
FILAMENTOUS ALGAE	*VARIOUS SPECIES*	1	2%								

Table 11: Submersed aquatic vegetation (SAV) species recorded in the Village of Celeron during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Village of Celeron

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**23**									
TOTAL VEGETATED SITES		**23**	**100%**	**2**	**9%**	**6**	**26%**	**4**	**17%**	**11**	**48%**
WESTERN WATERWEED	*ELODEA NUTTALLI*	23	100%	10	43%	11	48%	2	9%	0	0%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	22	96%	22	100%	0	0%	0	0%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	22	96%	19	86%	2	9%	1	5%	0	0%
WATER STARGRASS	*HETERANTHERA DUBIA*	19	83%	18	95%	1	5%	0	0%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	7	30%	7	100%	0	0%	0	0%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	7	30%	7	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	5	22%	5	100%	0	0%	0	0%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	2	9%	2	100%	0	0%	0	0%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	2	9%	2	100%	0	0%	0	0%	0	0%
CURLY-LEAF PONDWEED	*POTAMOGETON CRISPUS*	1	4%	1	100%	0	0%	0	0%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	1	4%	1	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	*POTAMOGETON ZOSTERA*	1	4%	1	100%	0	0%	0	0%	0	0%
BRITTLE NAIAD	*NAJAS MINOR*	1	4%	1	100%	0	0%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	*MICROSERIA SP.*	3	13%								
SMALL DUCKWEED	*LEMNA MINOR*	1	4%								
WHITE WATER LILY	*NYMPHAEA ODORATA*	1	4%								

Table 12: Submersed aquatic vegetation (SAV) species recorded in the Town of North Harmony during the fall 2025 survey of Chautauqua Lake. Non-native species are marked in red.

Town of North Harmony

SPECIES PRESENT		TOTAL		TRACE		SPARSE		MODERATE		DENSE	
COMMON NAME	***SCIENTIFIC NAME***	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
TOTAL SURVEYED SITES		**147**									
TOTAL VEGETATED SITES		**127**	**86%**	**23**	**18%**	**48**	**38%**	**39**	**31%**	**17**	**13%**
WESTERN WATERWEED	*ELODEA NUTALLI*	104	71%	64	62%	37	36%	3	3%	0	0%
EURASIAN WATER MILFOIL	*MYRIOPHYLLUM SPICATUM*	89	61%	79	89%	10	11%	0	0%	0	0%
COONTAIL	*CERATOPHYLLUM DEMERSUM*	83	56%	68	82%	13	16%	2	2%	0	0%
WATER STARGRASS	*HETERANTHERA DUBIA*	57	39%	44	77%	8	14%	5	9%	0	0%
WILD CELERY	*VALLISNERIA AMERICANA*	54	37%	52	96%	2	4%	0	0%	0	0%
IVY-LEAVED DUCKWEED	*LEMNA TRISULCA*	48	33%	47	98%	1	2%	0	0%	0	0%
SLENDER NAIAD	*NAJAS FLEXILIS*	21	14%	20	95%	1	5%	0	0%	0	0%
WHITESTEM PONDWEED	*POTAMOGETON PRAELONGUS*	8	5%	7	88%	1	13%	0	0%	0	0%
LEAFY PONDWEED	*POTAMOGETON FOLIOSUS*	6	4%	6	100%	0	0%	0	0%	0	0%
SMALL PONDWEED	*POTAMOGETON PUSILLUS*	6	4%	6	100%	0	0%	0	0%	0	0%
FLATSTEM PONDWEED	*POTAMOGETON ZOSTERA*	5	3%	4	80%	1	20%	0	0%	0	0%
CURLY-LEAF PONDWEED	*POTAMOGETON CRISPUS*	4	3%	4	100%	0	0%	0	0%	0	0%
STARRY STONEWORT	*NITELLOPSIS OBTUSA*	4	3%	3	75%	0	0%	1	25%	0	0%
SOUTHERN NAIAD	*NAJAS GUADALUPENSIS*	3	2%	3	100%	0	0%	0	0%	0	0%
COMMON WATERWEED	*ELODEA CANADENSIS*	2	1%	2	100%	0	0%	0	0%	0	0%
SAGO PONDWEED	*STUCKENIA PECTINATA*	2	1%	2	100%	0	0%	0	0%	0	0%
MACROALGAE (NATIVE)	*CHARA/NITELLA*	2	1%	2	100%	0	0%	0	0%	0	0%
BENTHIC FILAMENTOUS ALGAE	*LYNGBYA SPP.*	7	5%								
FILAMENTOUS ALGAE	*VARIOUS SPECIES*	2	1%								

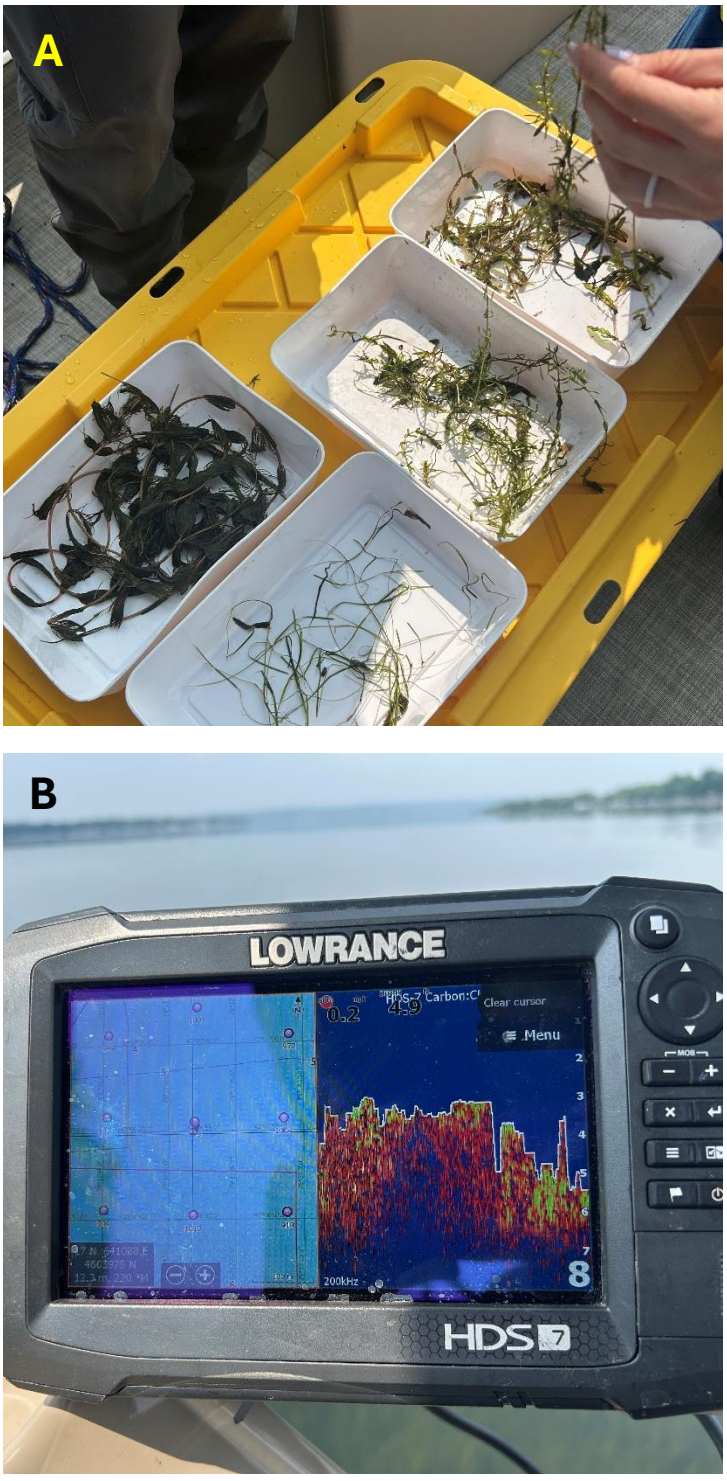


Figure 1: Sorting of submersed aquatic vegetation (SAV) by species following rake retrieval (A) while also concurrently recording sonar/SAV biovolume data (B) throughout the littoral zone of Chautauqua Lake.

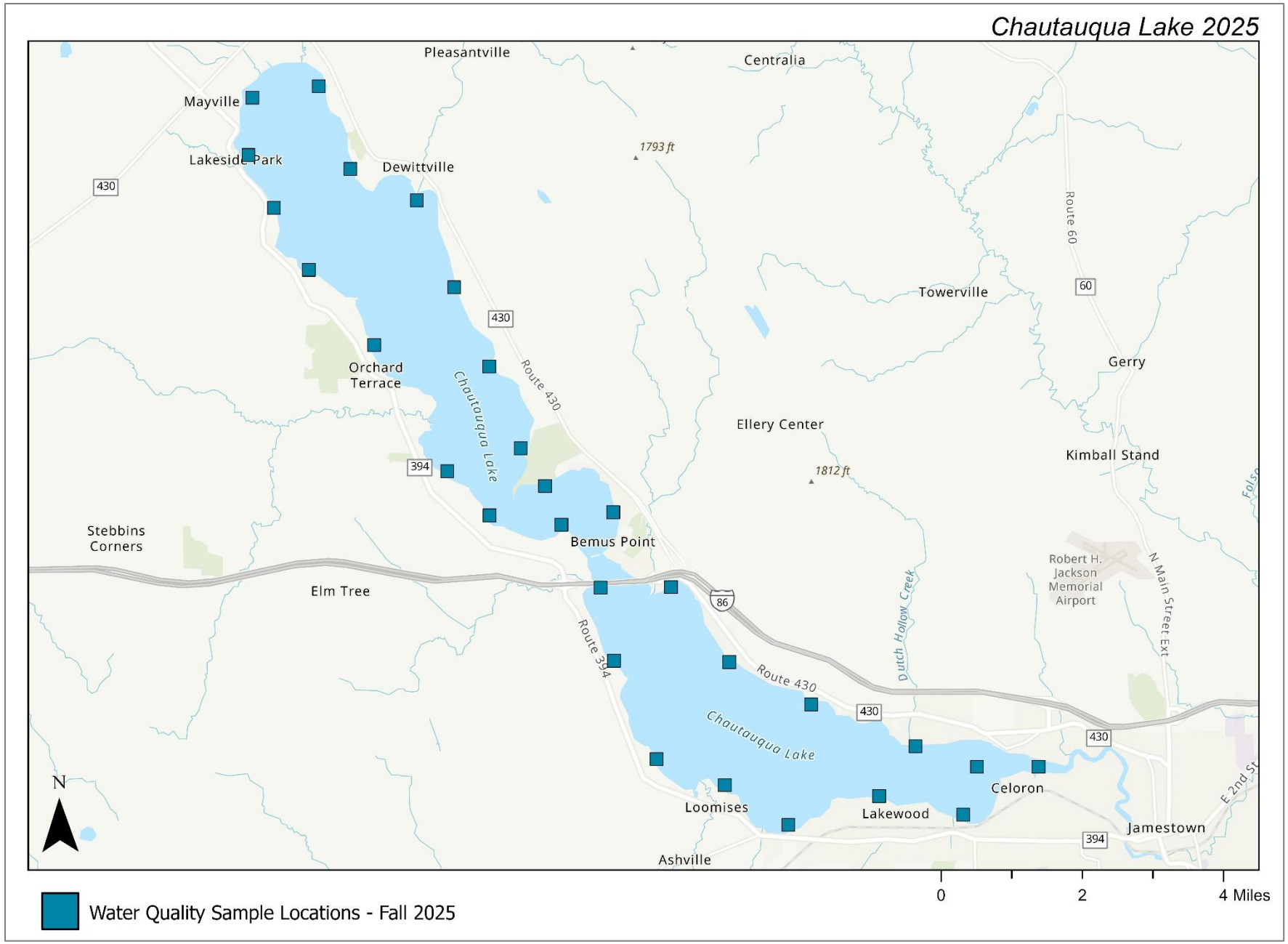


Figure 2: Water quality sample points (n = 29) during the fall 2025 survey.

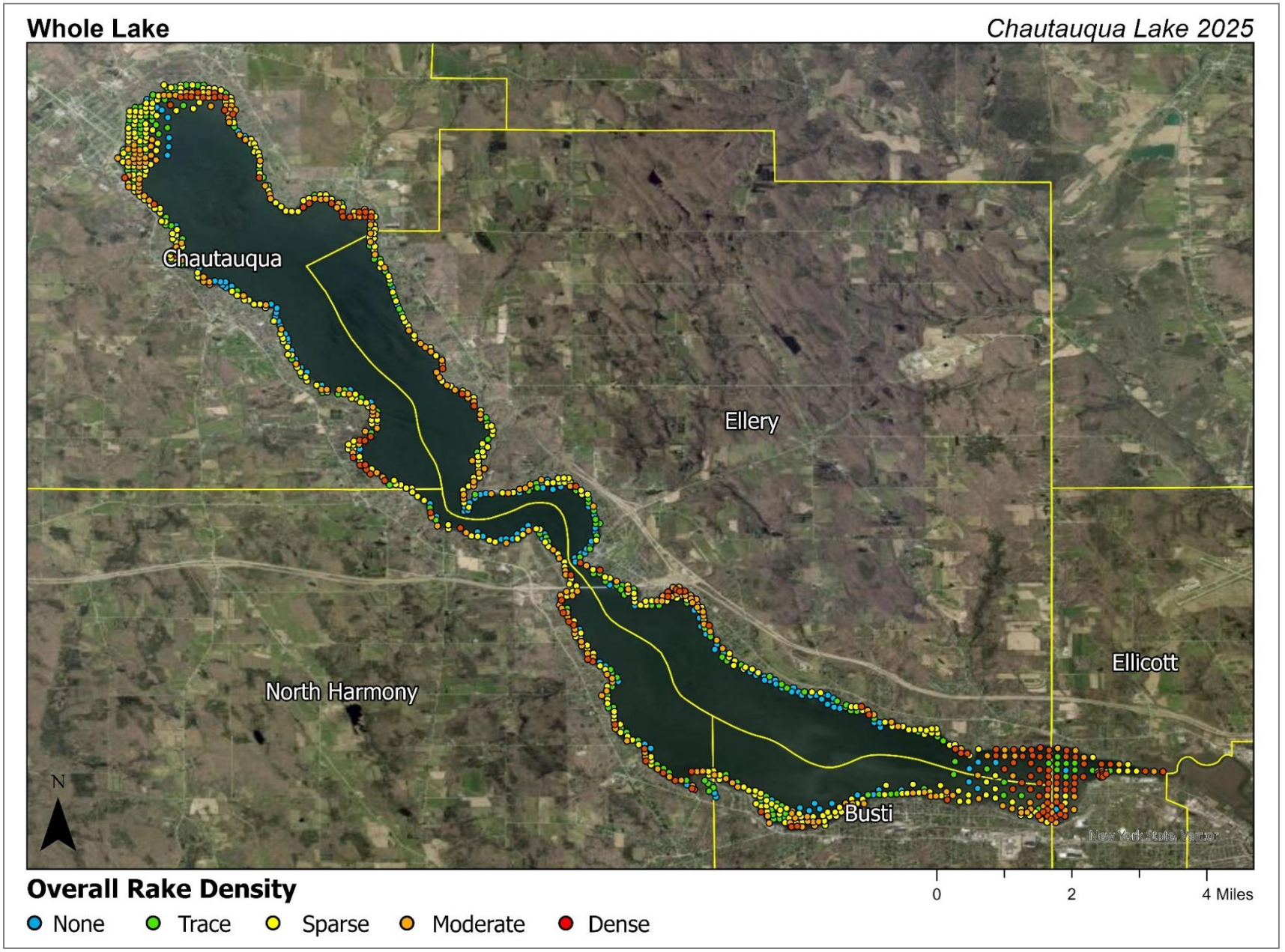


Figure 3: Overall rake density of surveyed points (n = 1076) during the fall 2025 aquatic vegetation survey at Chautauqua Lake.

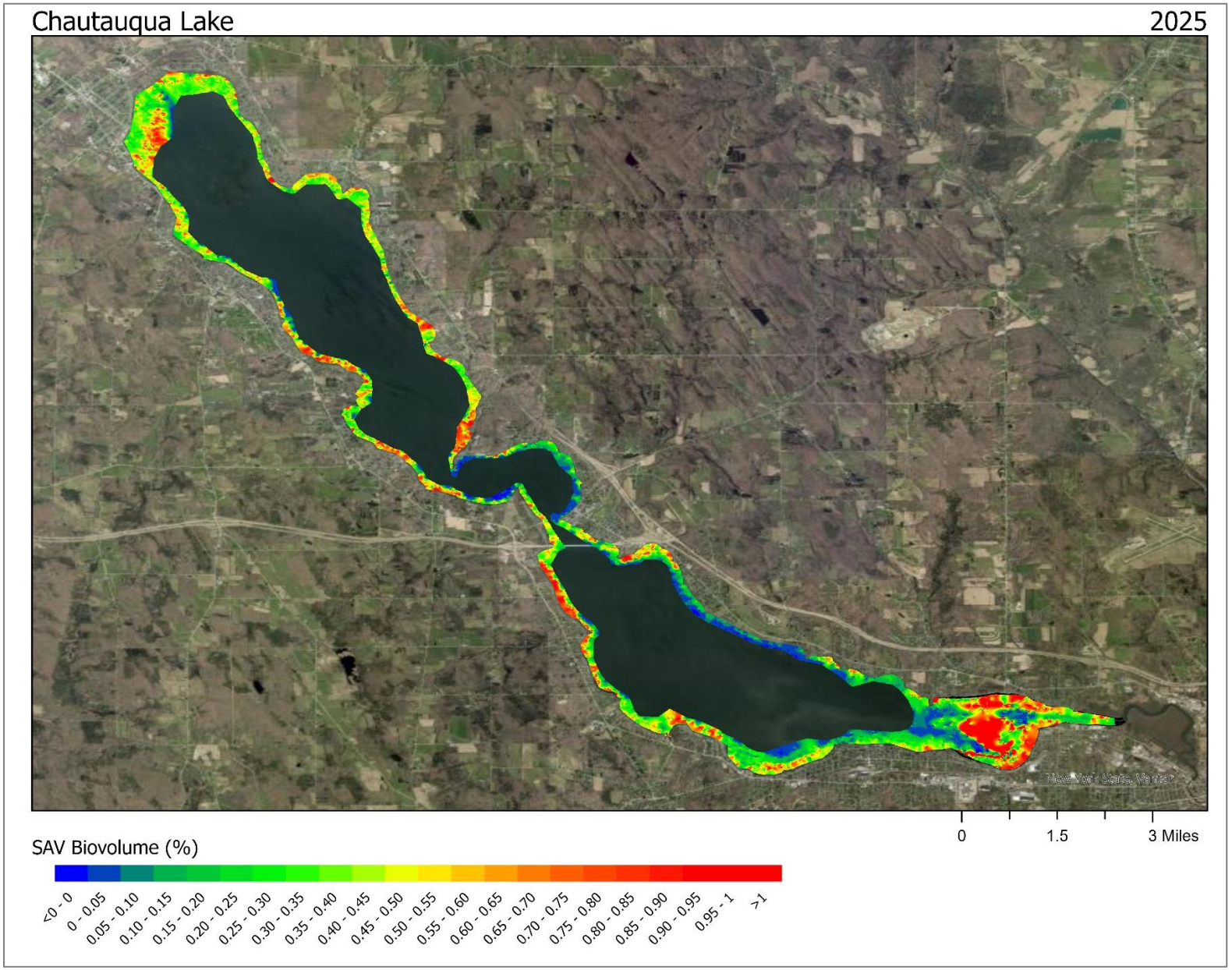


Figure 4: Lakewide submersed aquatic vegetation biovolume estimates constructed from echosounding data and Sentinel-2 satellite imagery (Burtis Bay region only). Warmer color areas represent greater water column occupancy (0-100% occupied).

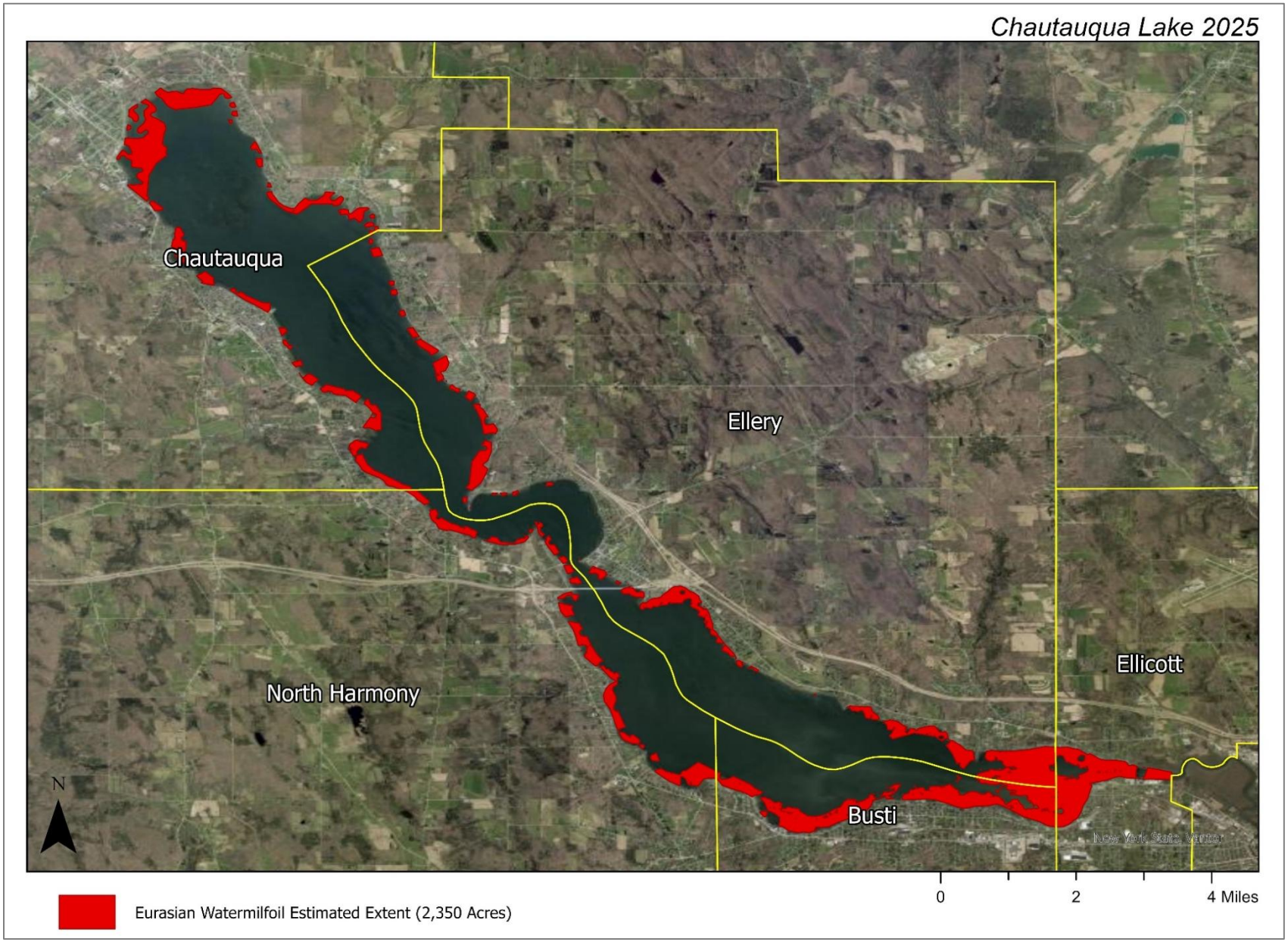


Figure 5: Interpolated estimate of Eurasian watermilfoil (*Myriophyllum spicatum; EWM*) found throughout the surveyed portion of Chautauqua Lake.

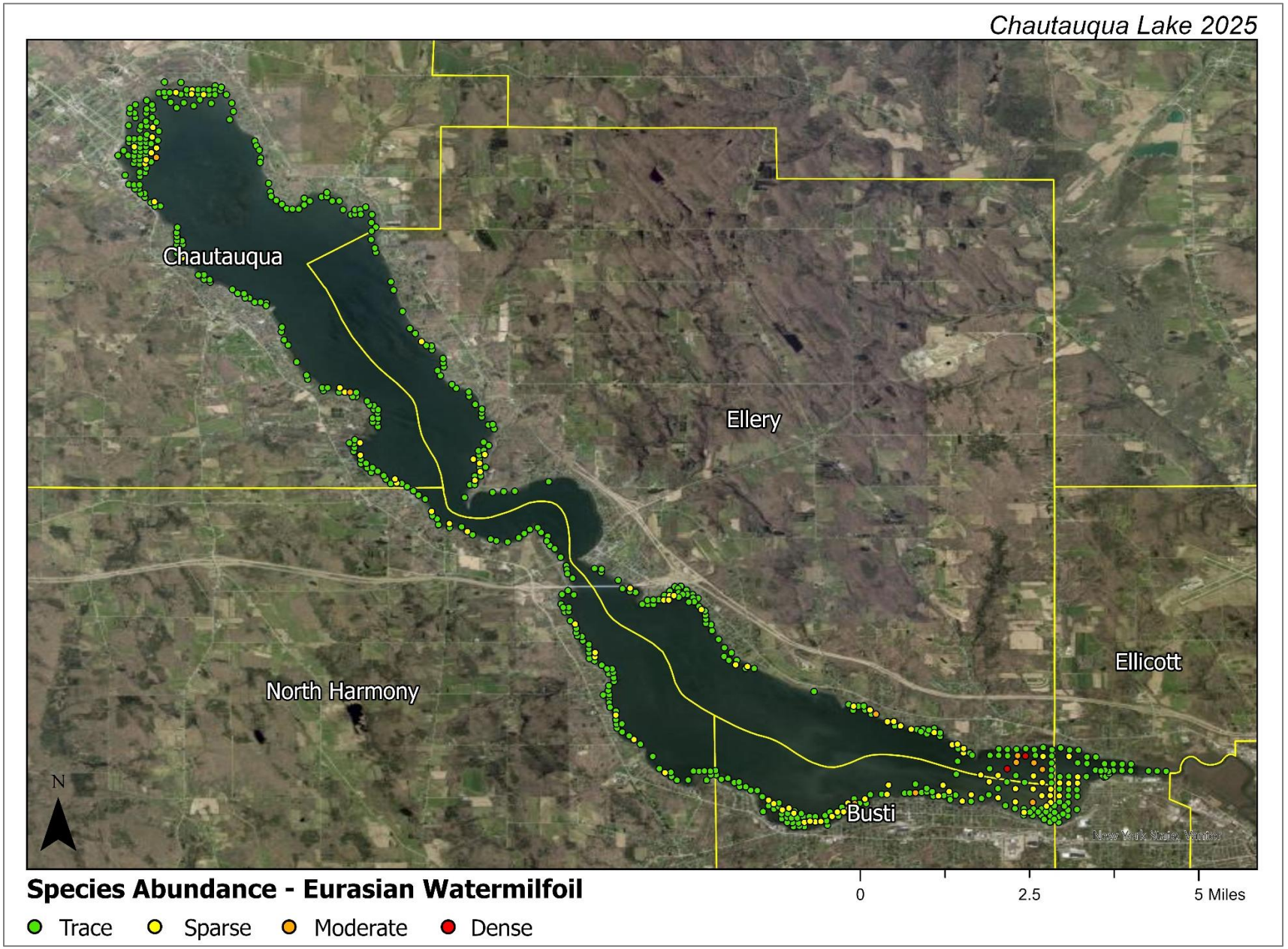


Figure 6: Distribution and abundance of Eurasian watermilfoil (*Myriophyllum spicatum*; EWM) in Chautauqua Lake during the fall 2025 aquatic vegetation survey.

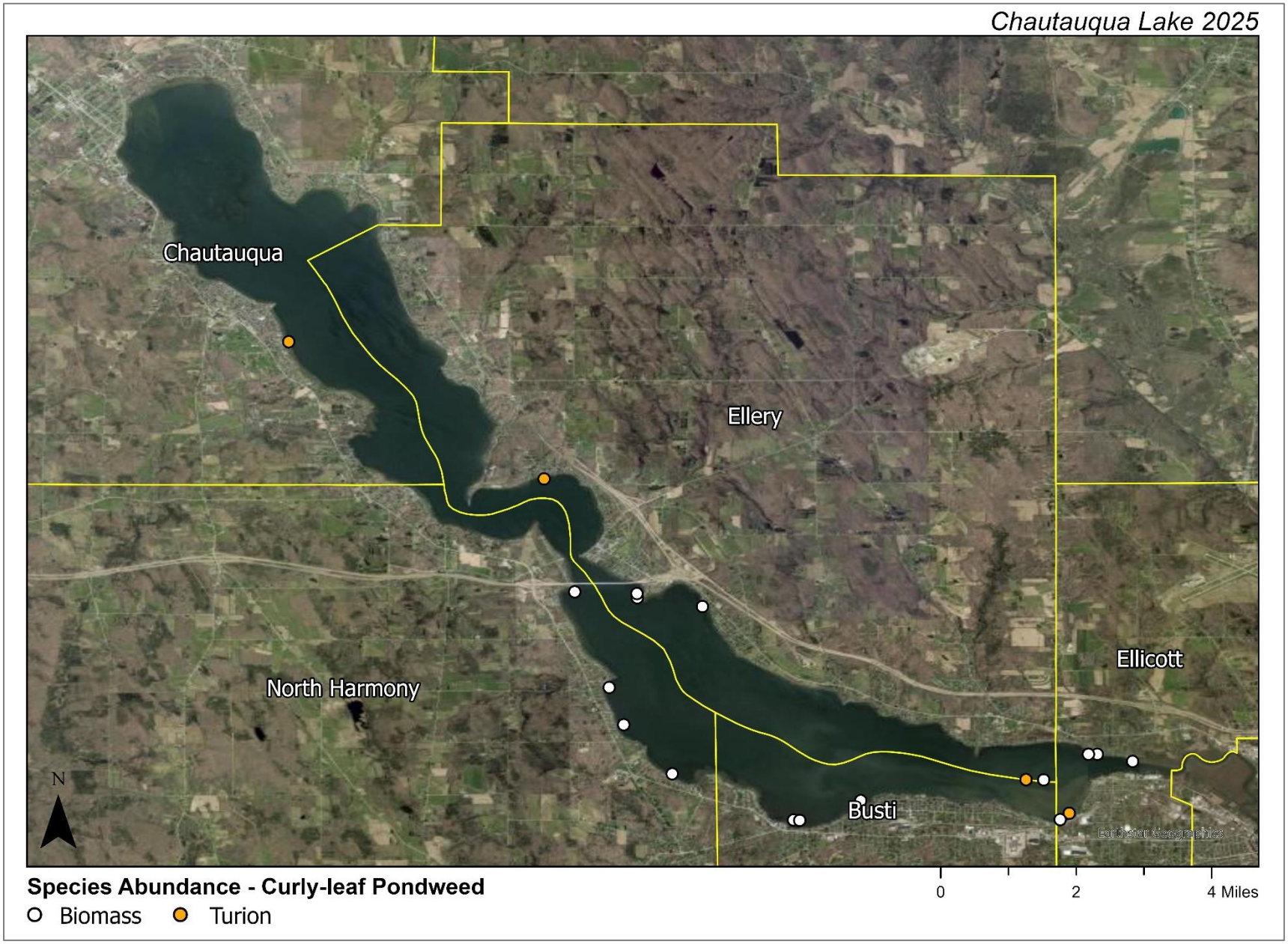


Figure 7: Distribution and abundance of curly-leaf pondweed (*Potamogeton crispus*; CLP) in Chautauqua Lake during the fall 2025 aquatic vegetation survey.

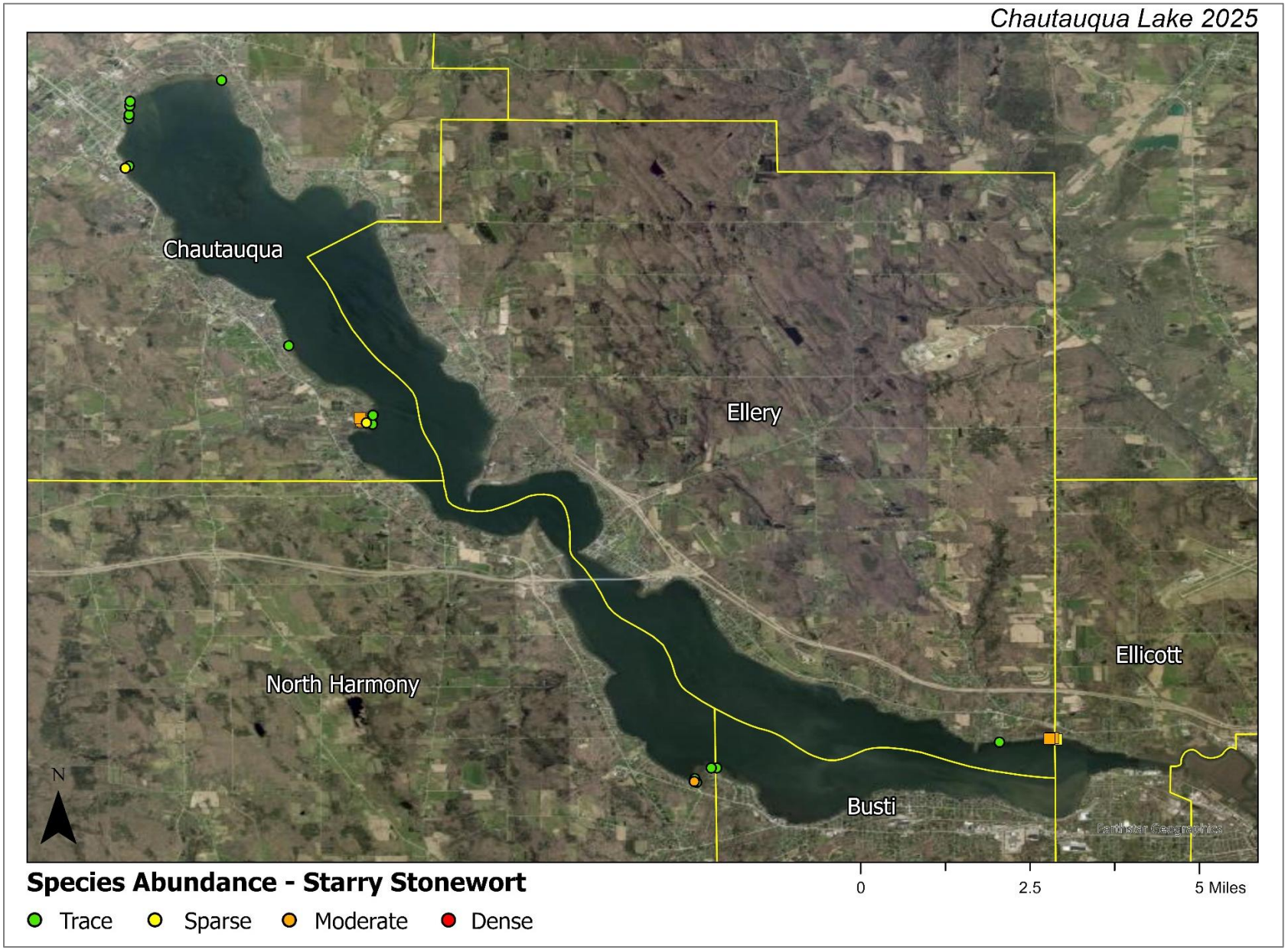


Figure 8: Distribution of starry stonewort (*Nitellopsis obtusa*) in Chautauqua Lake during the fall 2025 aquatic vegetation survey.

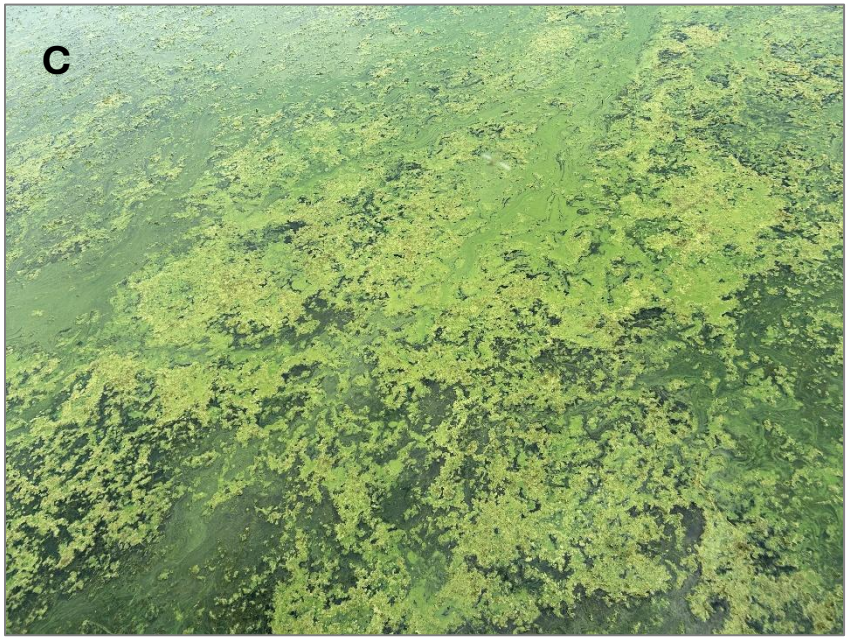
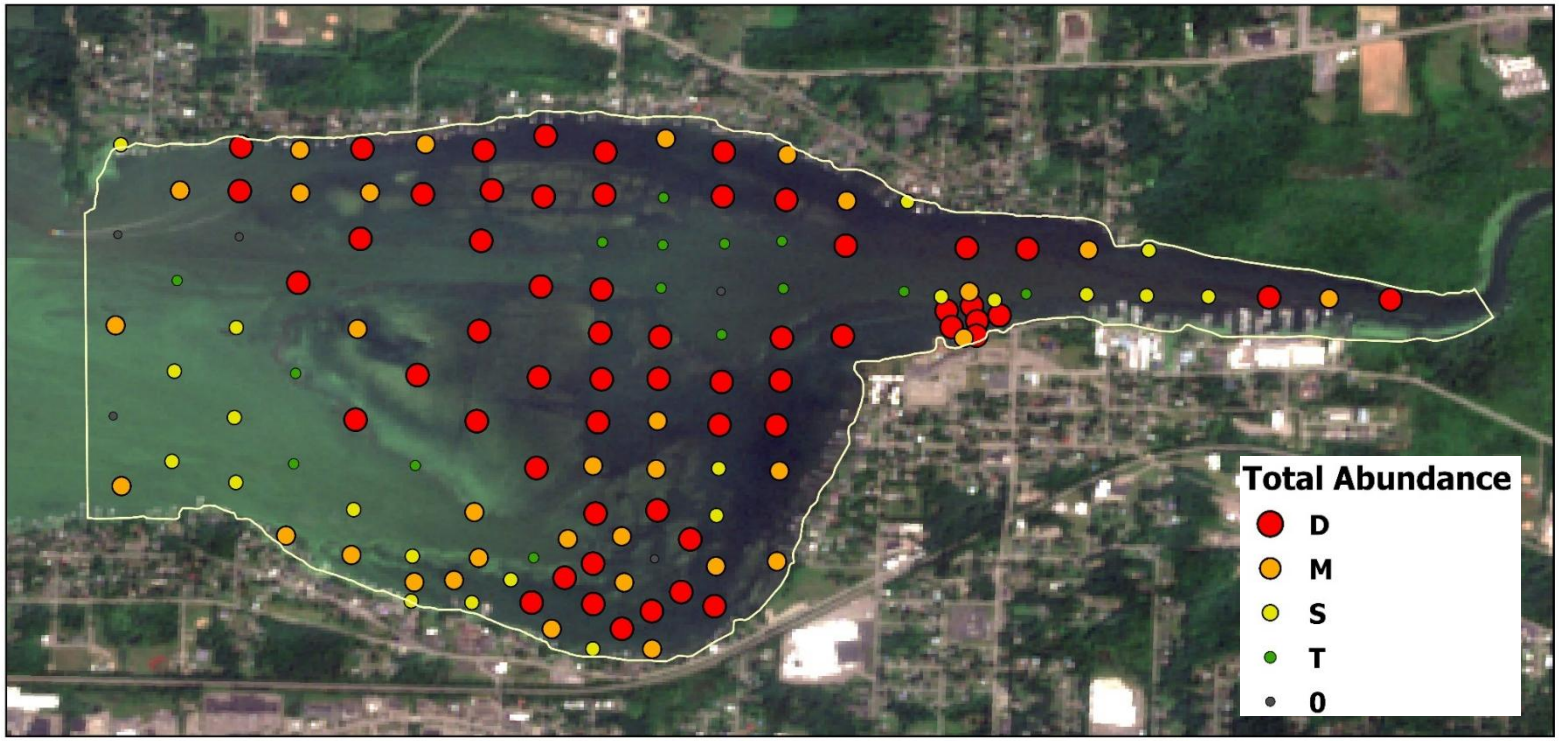


Figure 9: Photos of topped-out SAV conditions in Burtis Bay during the survey period (A & B), and active algal blooms bound to SAV biomass (C).

Figure 10: Aerial drone image of Burtis Bay captured during the survey period.



Species		NY Status	Occurrence
Western Waterweed	*Elodea nutalli*	N	94.6%
Eurasian Watermilfoil	*Myriophyllum spicatum*	I	88.5%
Coontail	*Ceratophyllum demersum*	N	66.2%
Water Stargrass	*Heteranthera dubia*	N	30.8%
Ivy-Leaved Duckweed	*Lemna trisulca*	N	13.8%
Wild Celery	*Vallisneria americana*	N	13.1%
Common Waterweed	*Elodea canadensis*	N	8.5%
Leafy Pondweed	*Potamogeton foliosus*	N	8.5%
Curly-leaf Pondweed	*Potamogeton crispus*	I	3.8%
Slender Naiad	*Najas flexilis*	N	2.3%
Southern Naiad	*Najas guadalupensis*	N	2.3%
Small Pondweed	*Potamogeton pusillus*	N	1.5%
Flatstem Pondweed	*Potamogeton zostera*	N	0.8%
Brittle Naiad	*Najas minor*	I	0.8%
Sago Pondweed	*Stuckenia pectinata*	N	0.8%
Starry Stonewort	*Nitellopsis obtusa*	I	0.8%

Figure 11: Species composition and abundance documented in Burtis Bay during the fall 2025 survey.

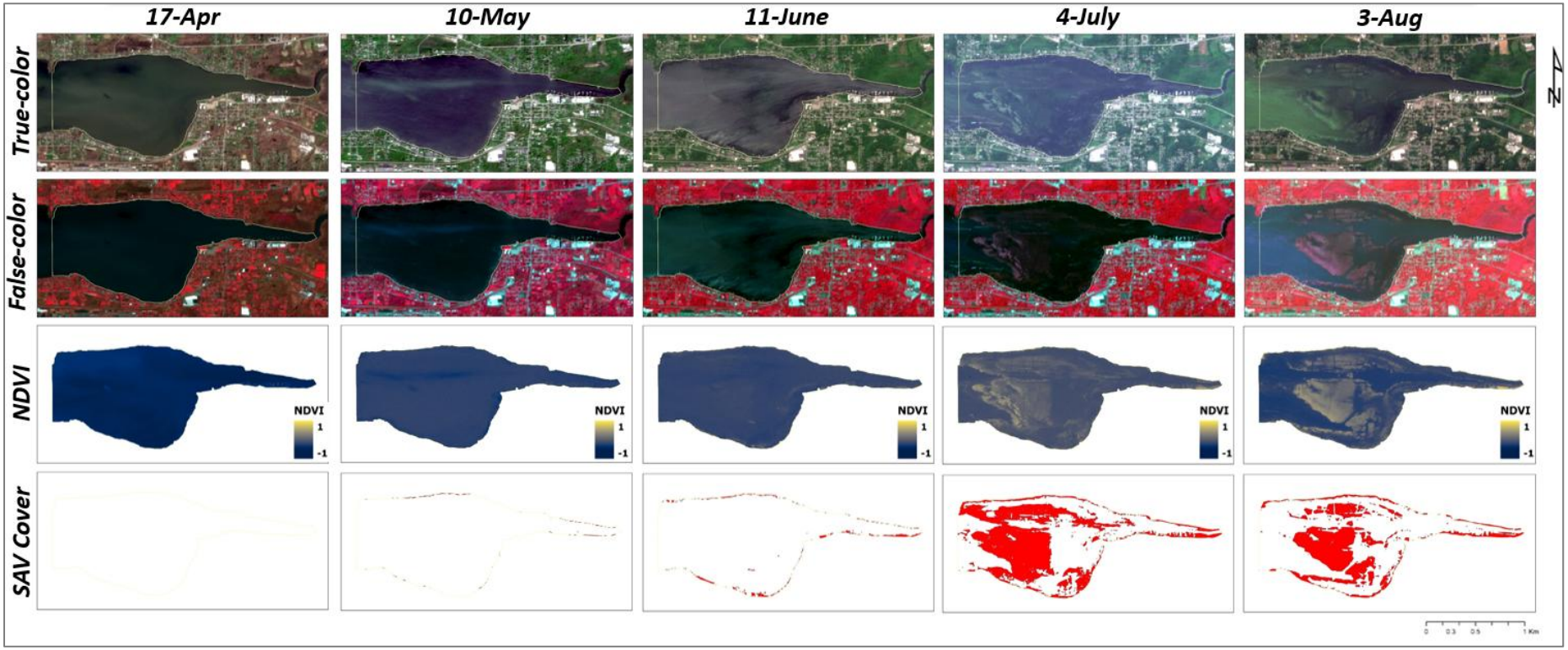


Figure 12: Progression of monthly biomass accumulation in Burtis Bay and the Outlet area of Chautauqua Lake as documented by Sentinel-2A satellite imagery captured between April and August 2025.

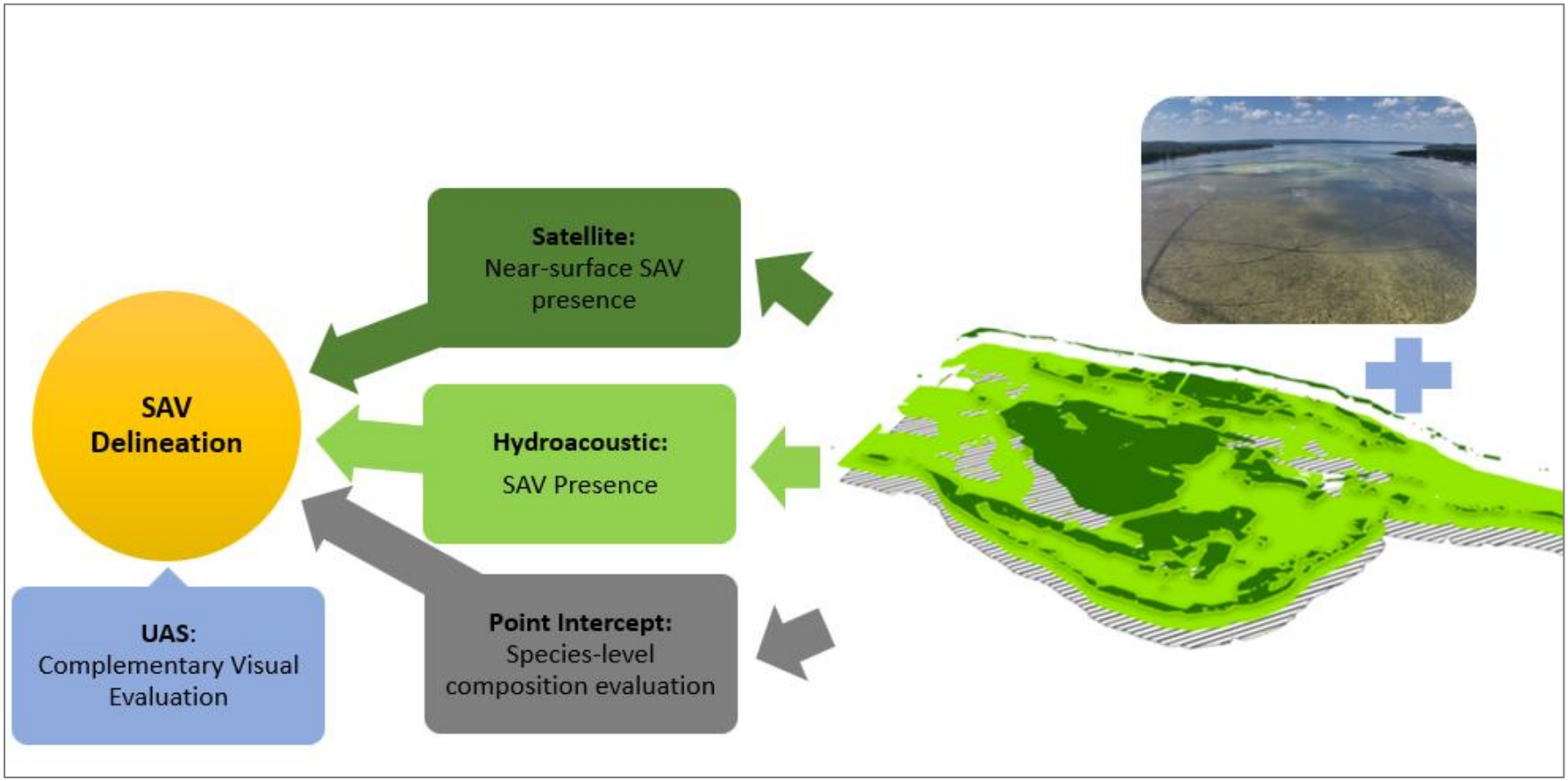


Figure 13: Schematic of multi-source data integration for increased accuracy of SAV delineation in Burtis Bay.

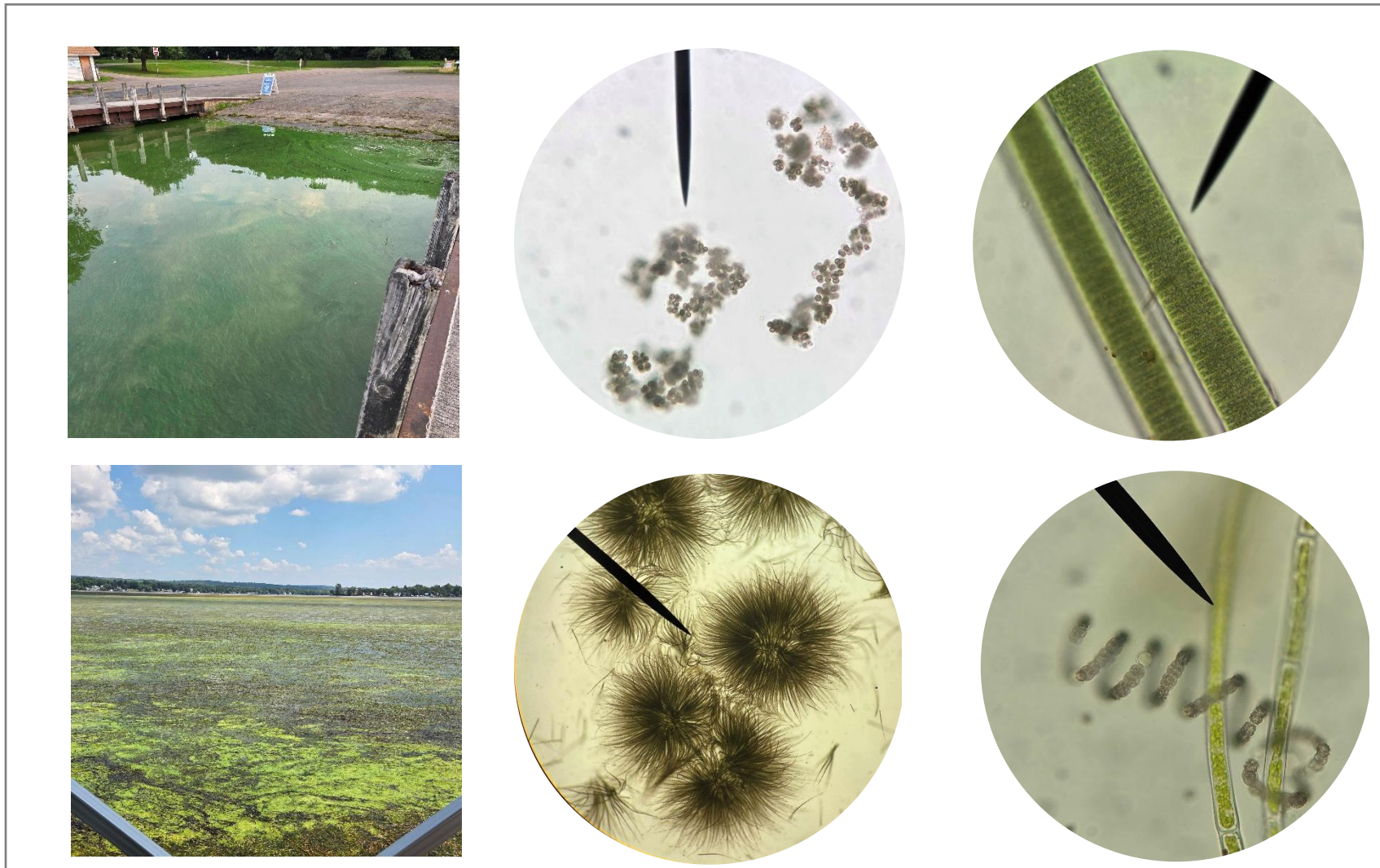


Figure 14: In-lake (left) and micro (right) views of algae collected within Chautauqua Lake during the fall 2025 survey.

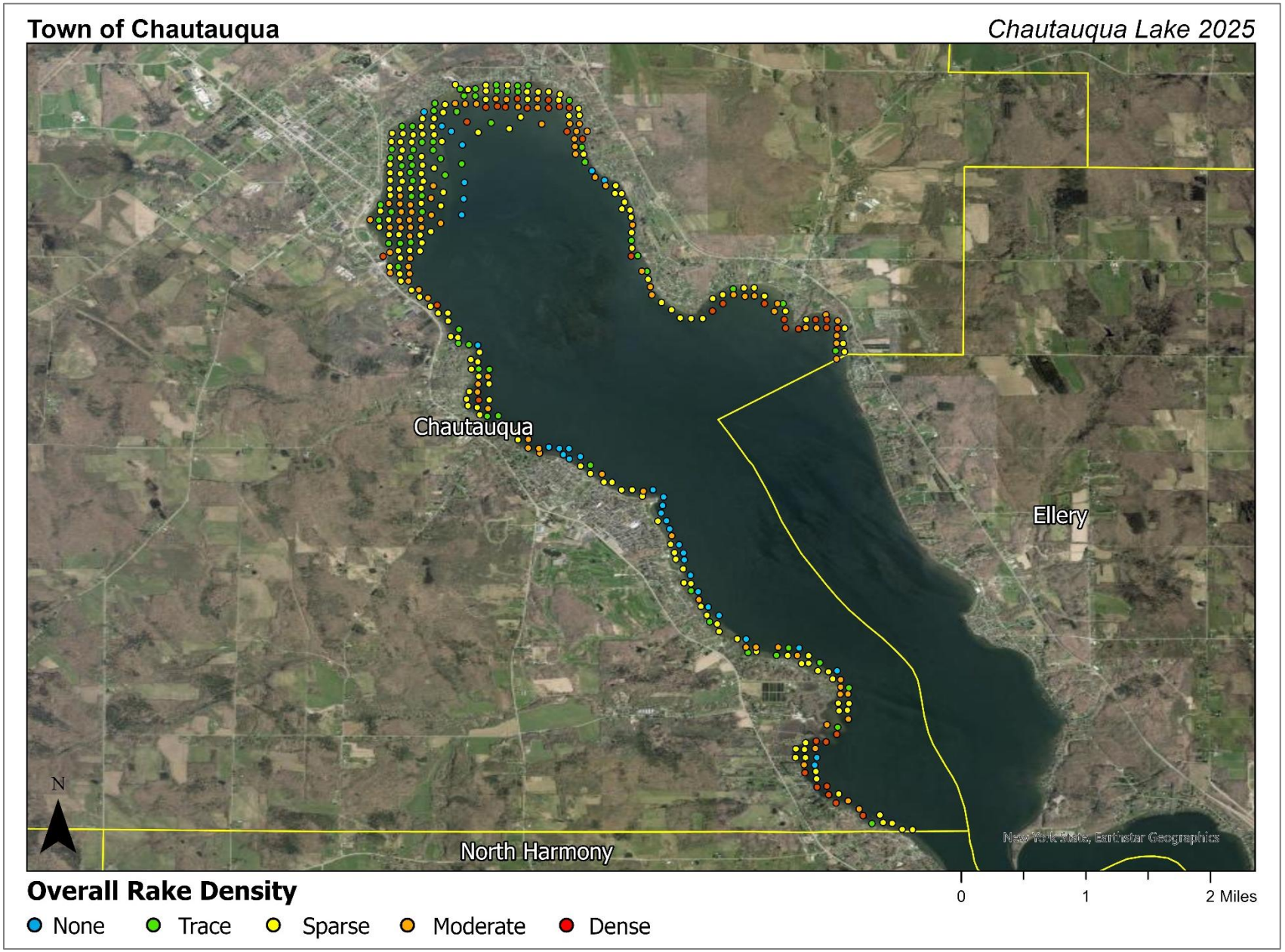


Figure 15: SAV abundance of survey points within the Town of Chautauqua during the fall 2025 survey.

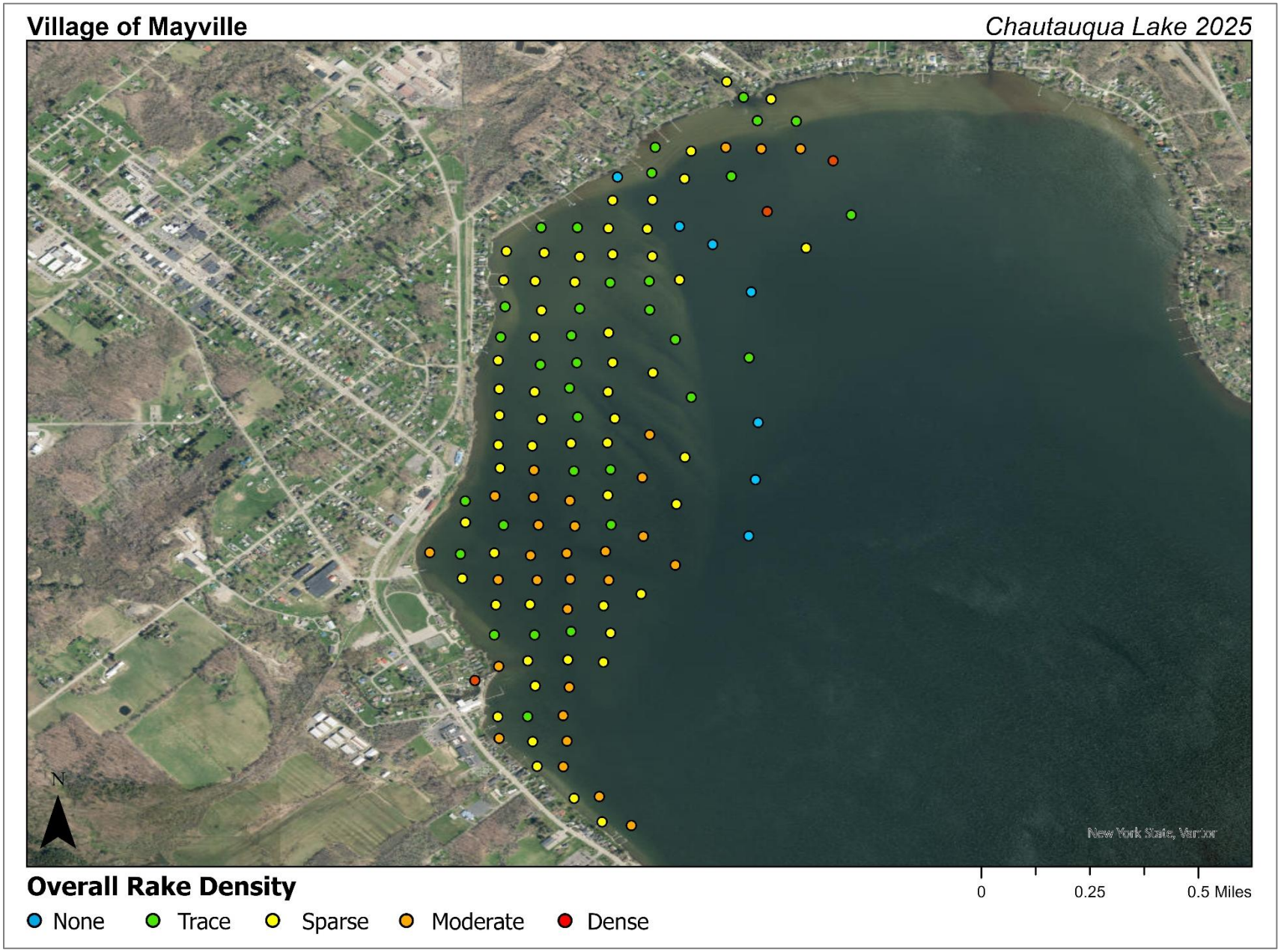


Figure 16: SAV abundance of survey points within the Village of Mayville during the fall 2025 survey.

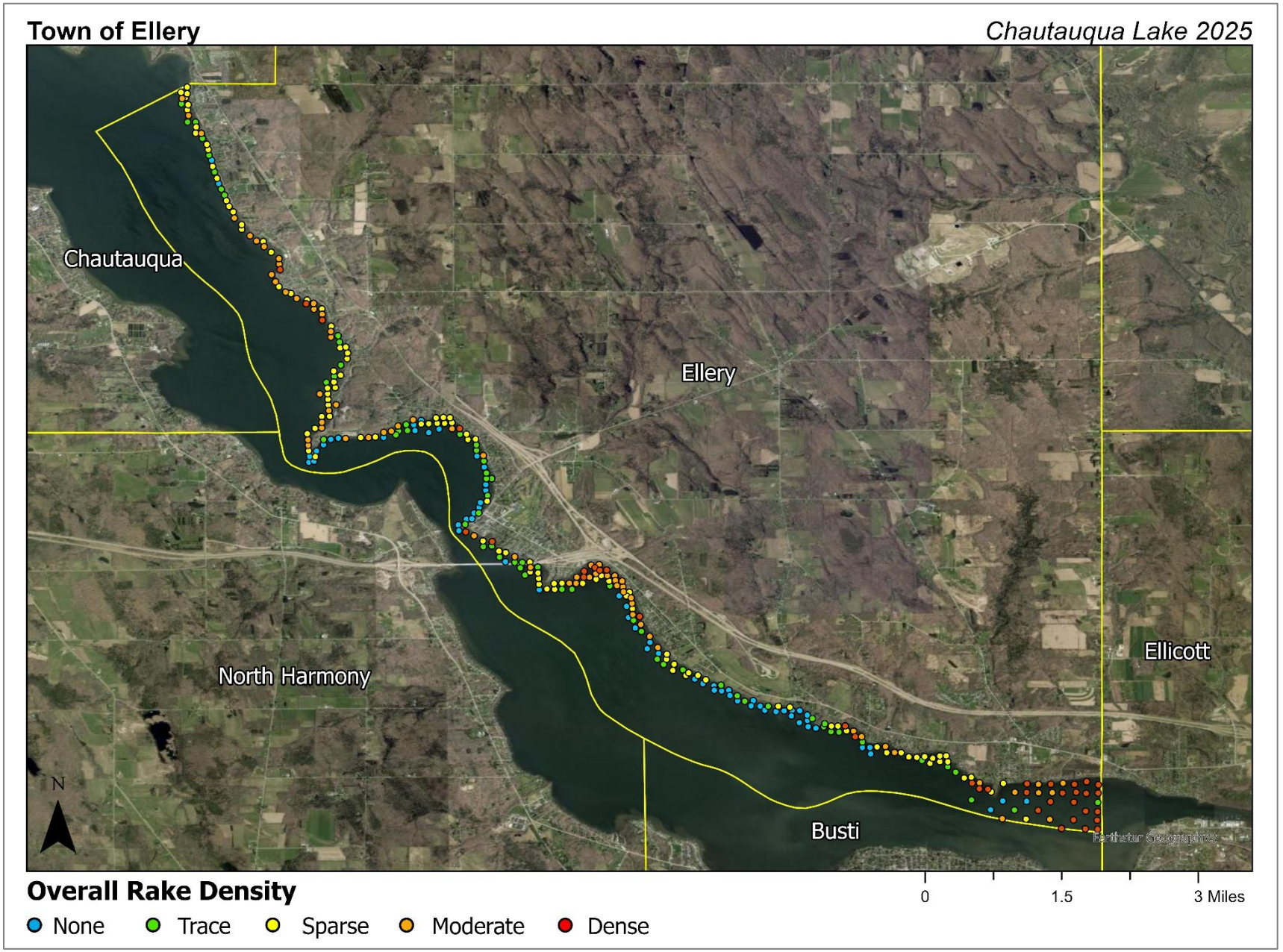


Figure 17: SAV abundance of survey points within the Town of Ellery during the fall 2025 survey.

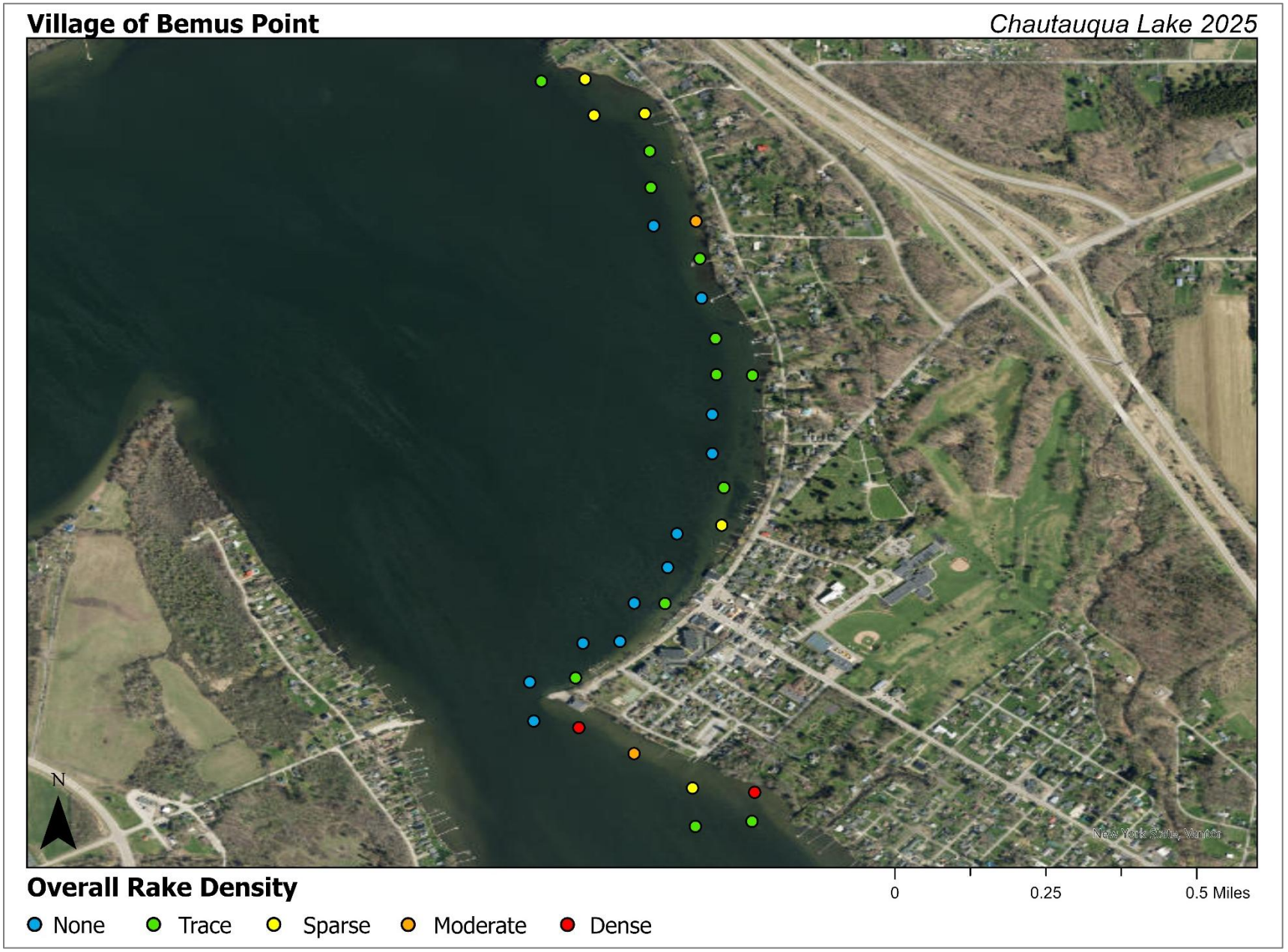


Figure 18: SAV abundance of survey points within the Village of Bemus Point during the fall 2025 survey.

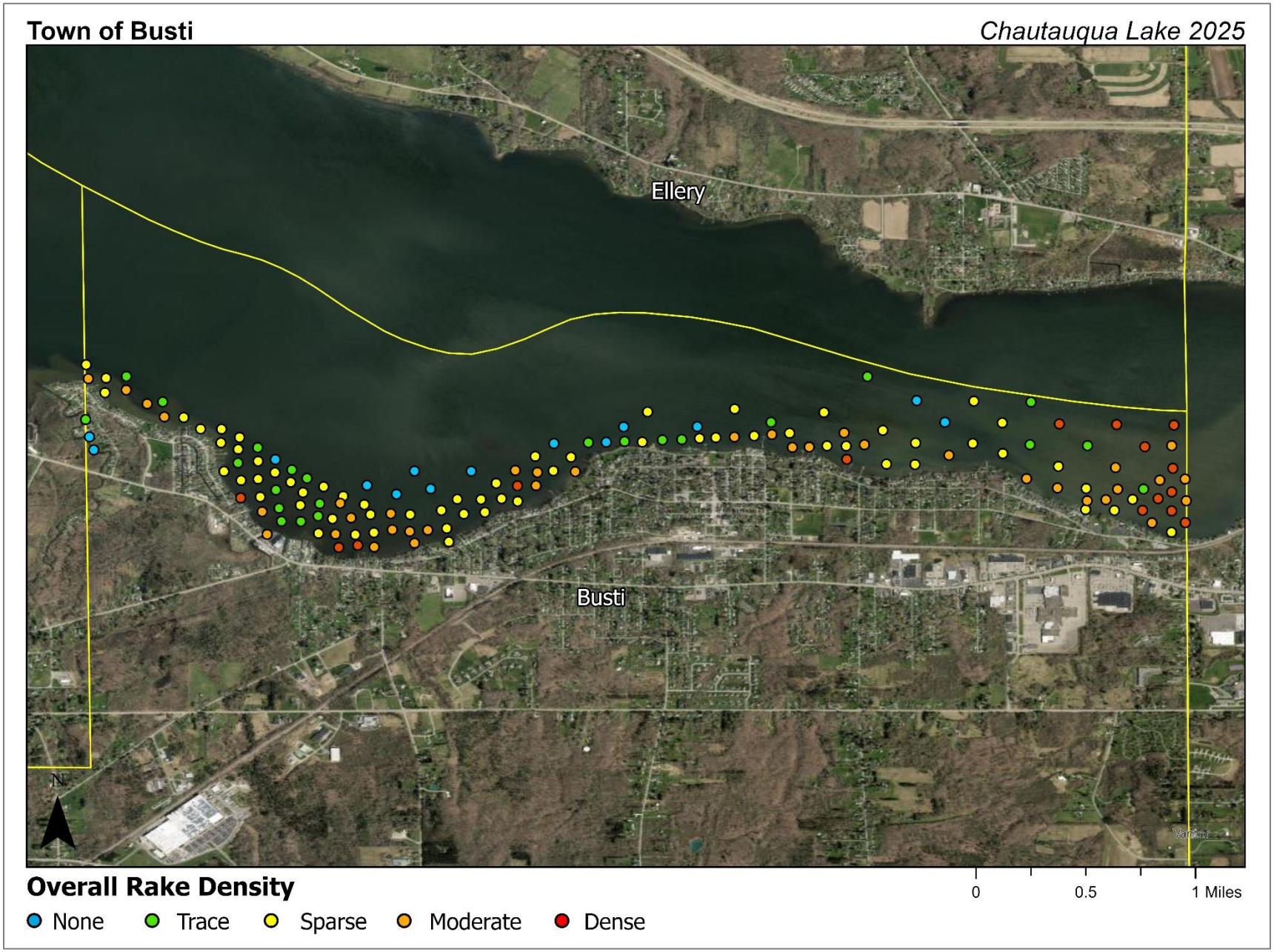


Figure 19: SAV abundance of survey points within the Town of Busti during the fall 2025 survey.

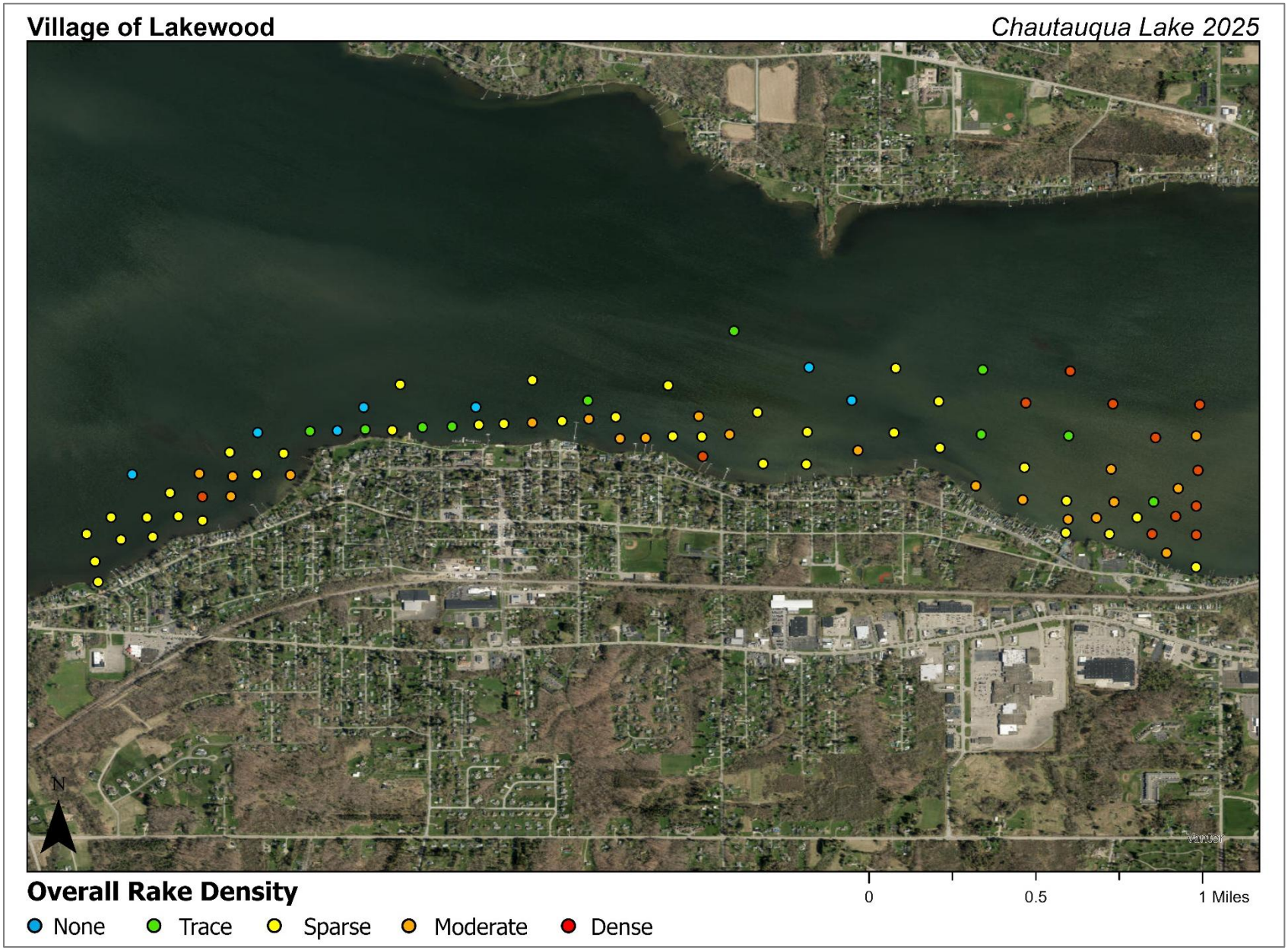


Figure 20: SAV abundance of survey points within the Village of Lakewood during the fall 2025 survey.

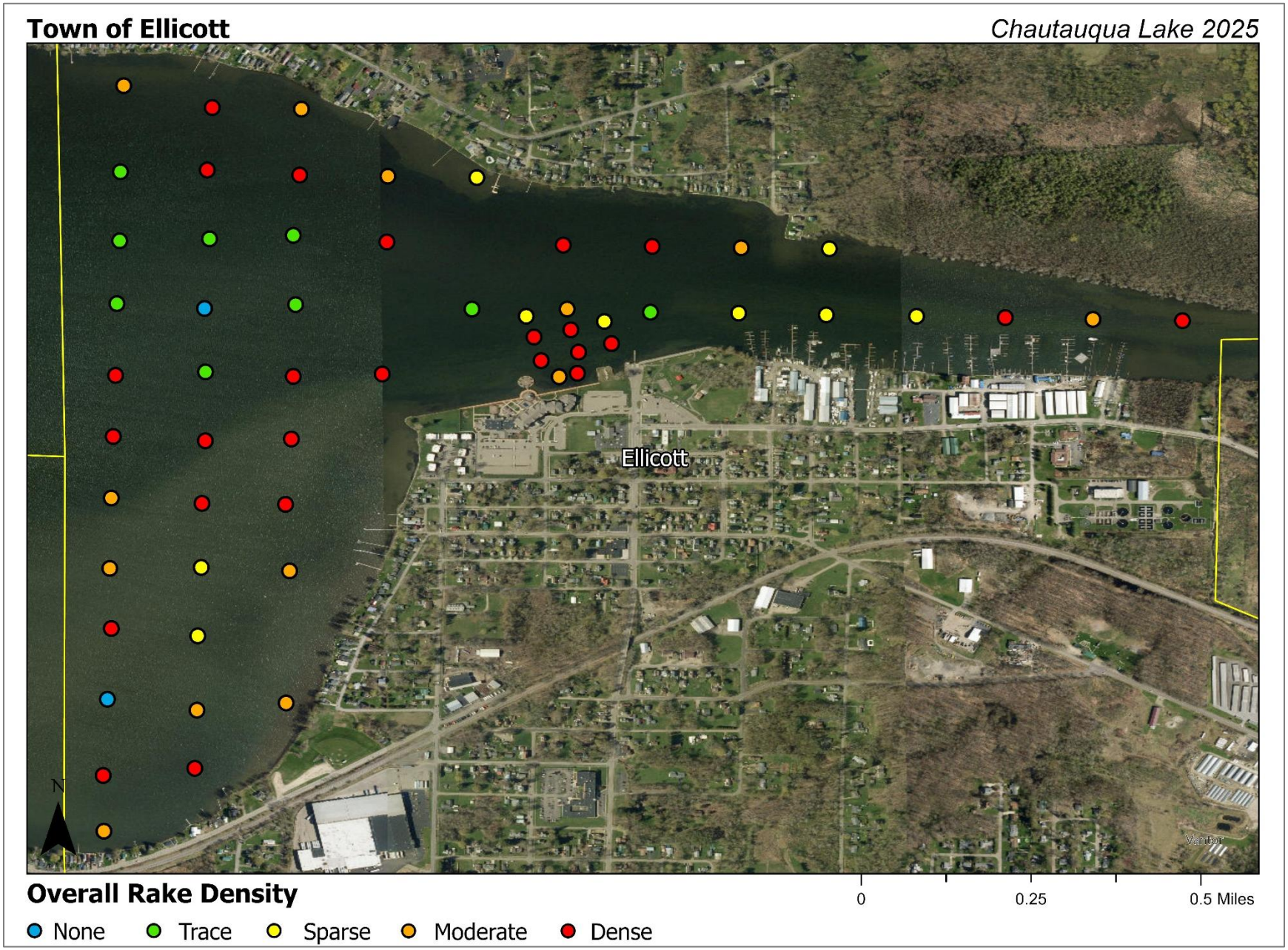


Figure 21: SAV abundance of survey points within the Town of Ellicott during the fall 2025 survey.

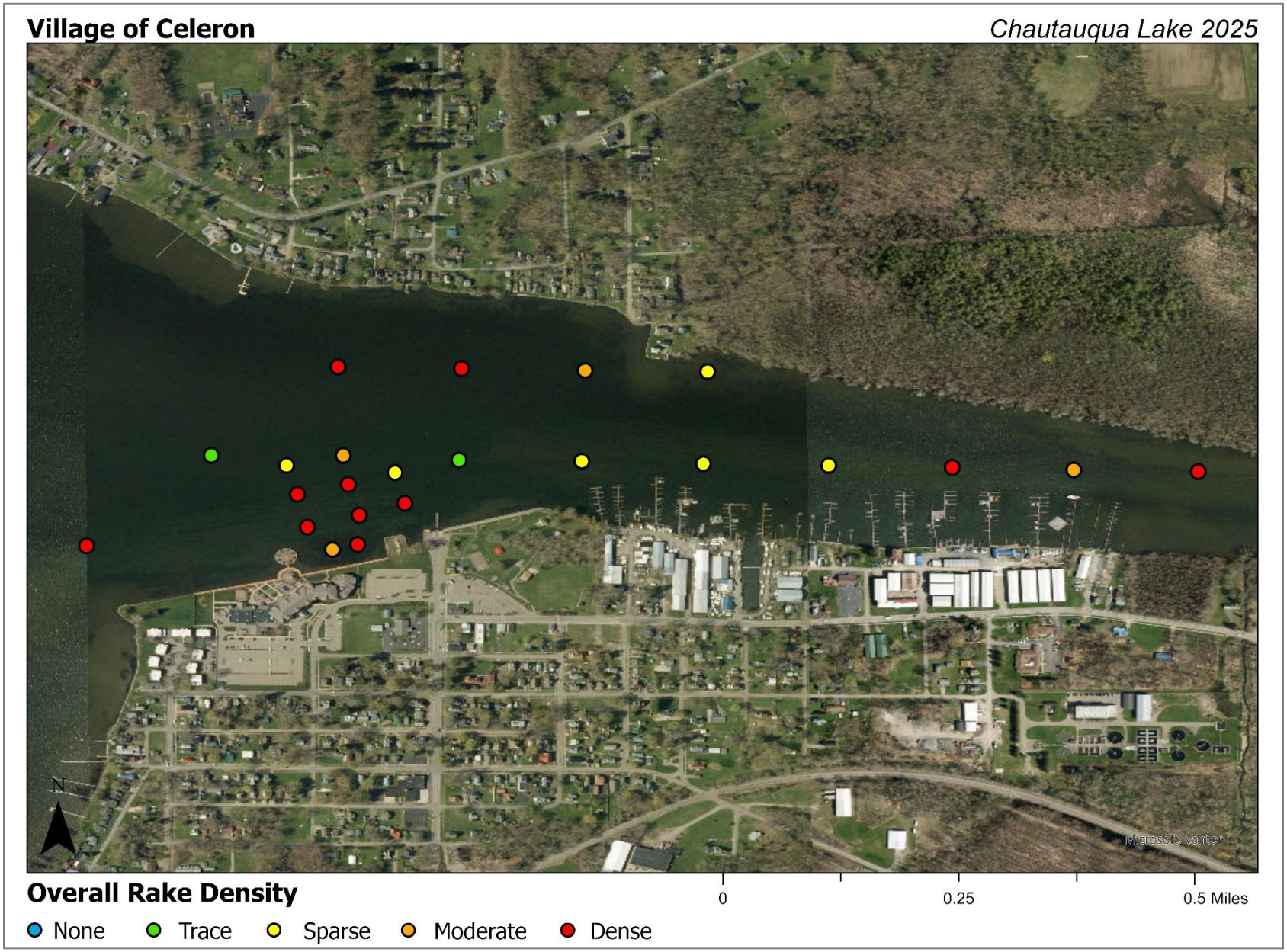


Figure 22: SAV abundance of survey points within the Village of Celeron during the fall 2025 survey.

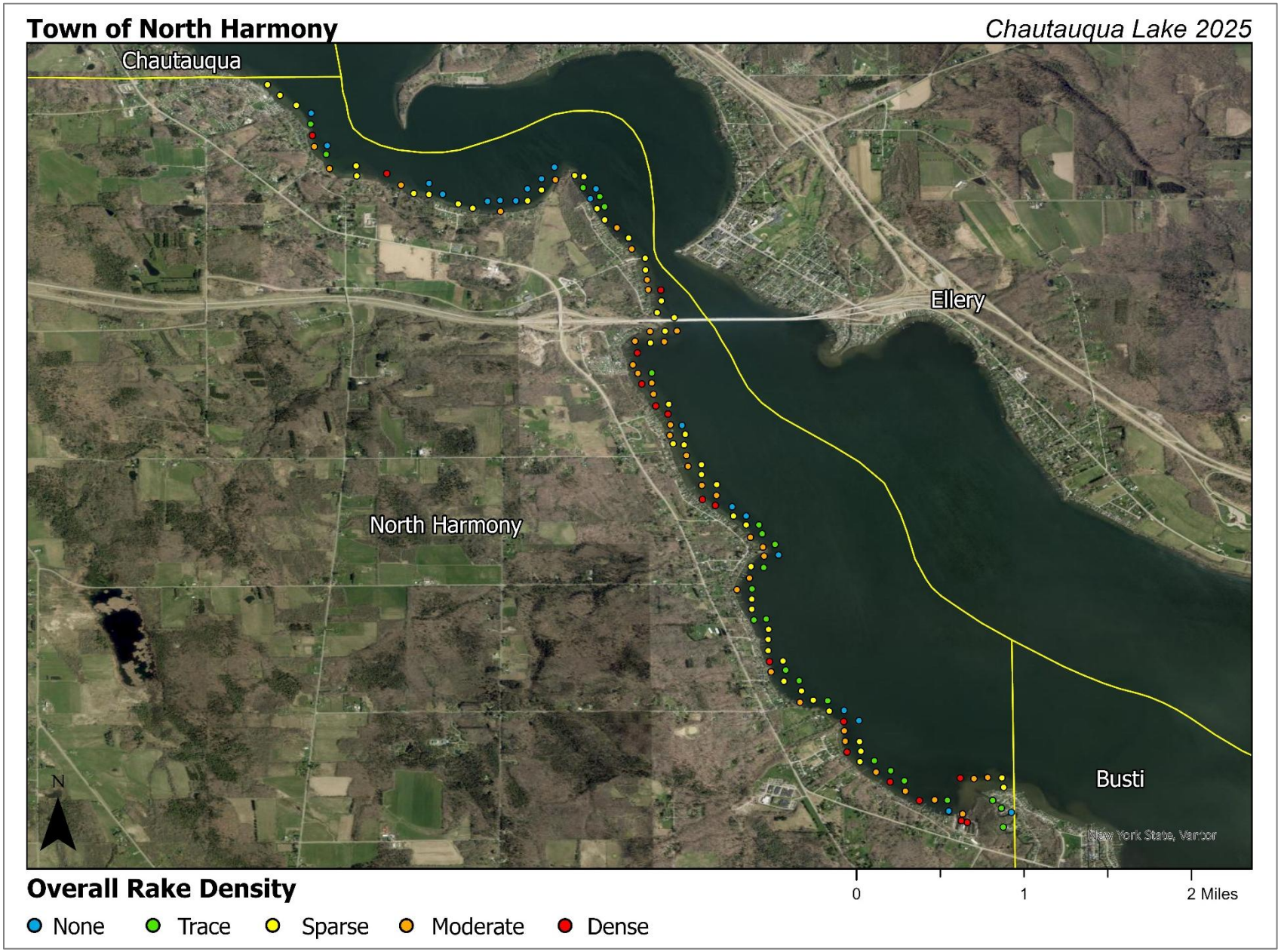


Figure 23: SAV abundance of survey points within the Town of North Harmony during the fall 2025 survey.

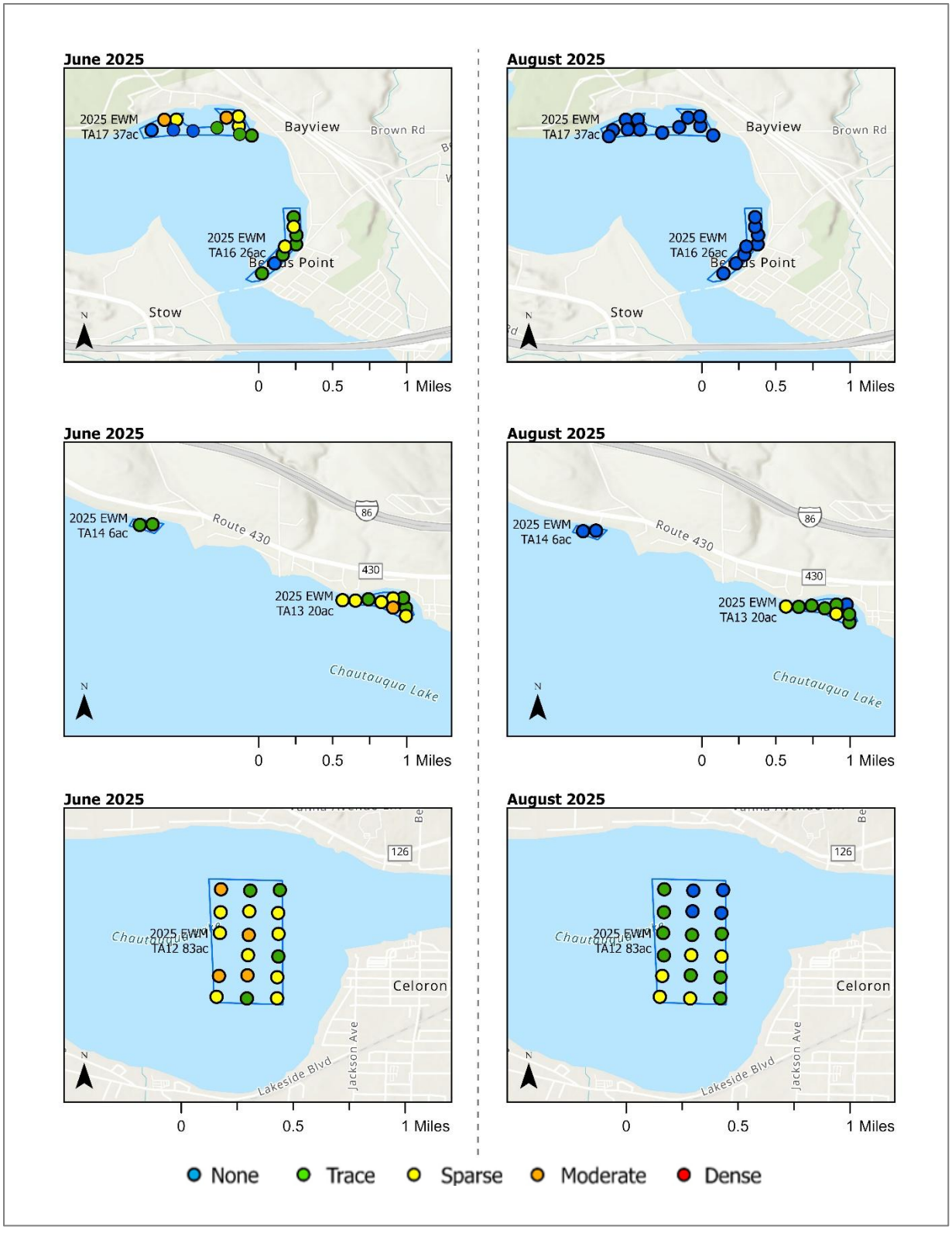


Figure 24: Comparison of EWM abundance in documented treatment areas in June and August 2025.

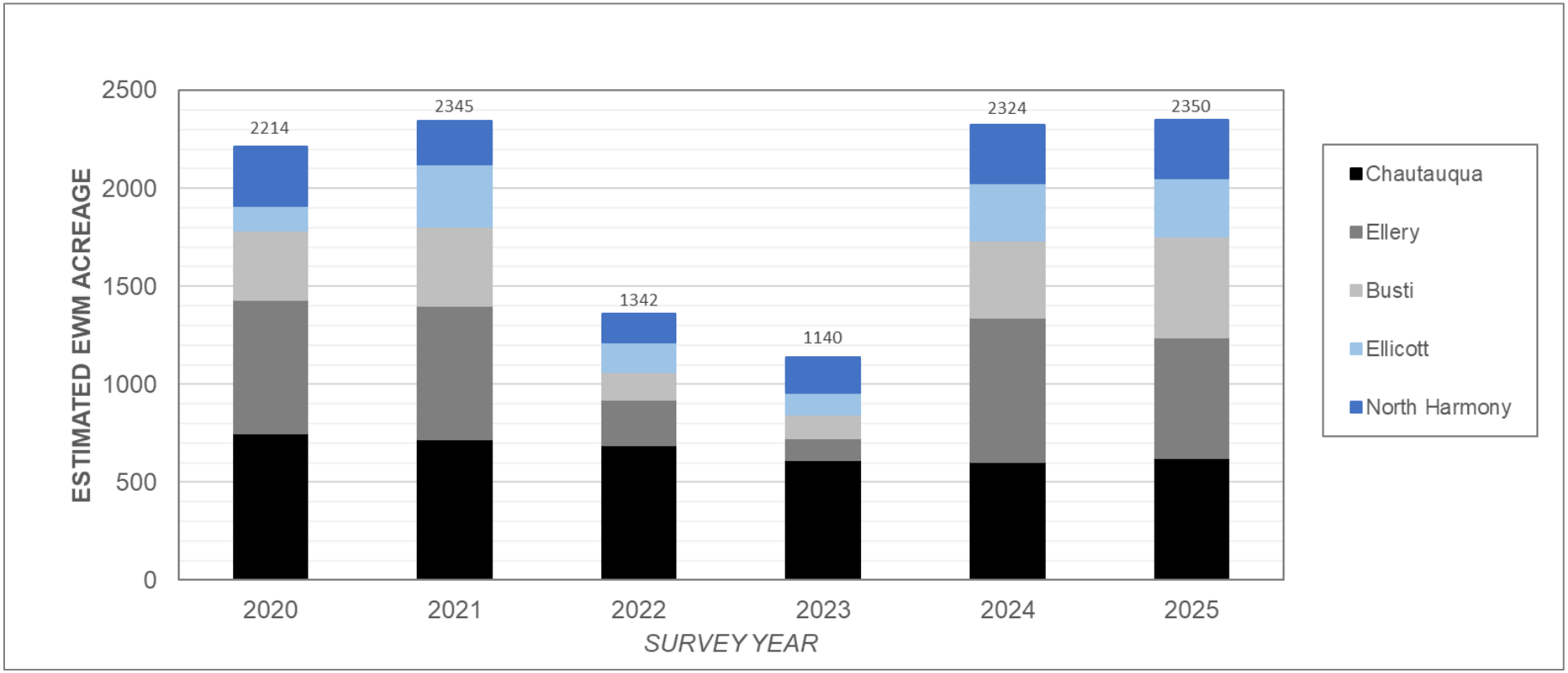


Figure 25: Estimated EWM acreage over time at Chautauqua Lake as delineated by Fall surveys separated by Town (Survey start dates: 2020: 31 August; 2021: 10 September; 2022: 22 August: 2023: 13 August; 2024 12 August; 2025: 5 August). Total acreages per year are listed above each respective bar.

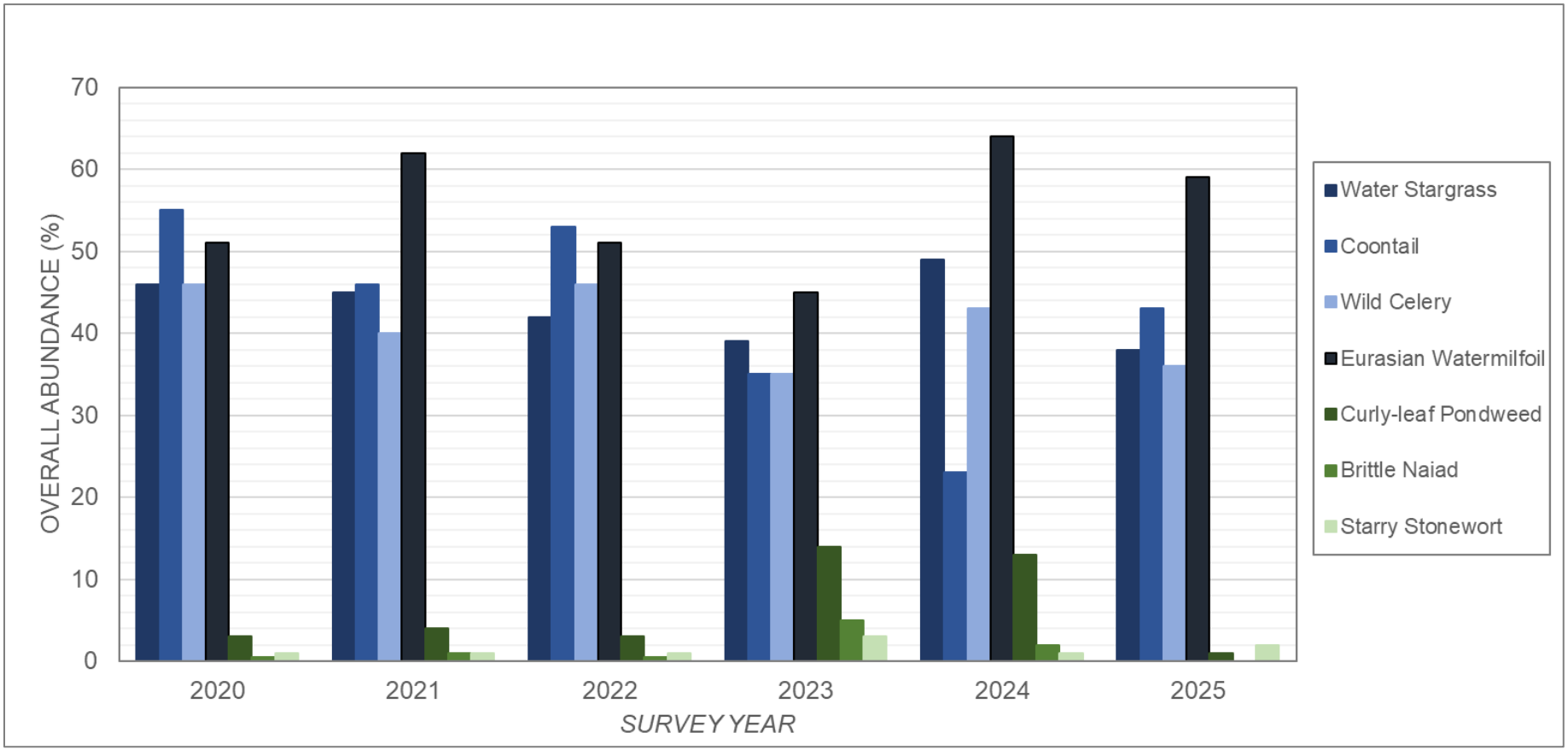


Figure 26: Overall abundance of major native and non-native SAV species at surveyed points of Chautauqua Lake over time.

Figure 27: Starry stonewort biomass and bulbils collected during the fall 2025 survey.