

Freshwater Aquatic Invasive Species in Rhode Island

Species-specific Statewide Distributions

November 2020



Rhode Island Department of Environmental Management

Office of Water Resources

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Acknowledgements

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Photo Documentation*

Cover photos by RIDEM: Variable Milfoil in Bowdish Reservoir, Burrillville (2012); Asian Clam in Upper Dam Pond, Coventry (2015); American Lotus in Chapman Pond, Westerly (2010); Water chestnut in Valley Falls Pond, Central Falls (2017).

Photo of variable milfoil (pages 1-7) by RIDEM, taken at Locustville Pond, Hopkinton, 2015

Photo of fanwort (pages 8-13) by RIDEM, taken from Johnson's Pond (Flat Riv. Res.), Coventry, 2008

Photo of Curly-leaf pondweed (pages 14-16) by RIDEM, taken from Pawtuxet River (mainstem), 2009

Photo of mudmat (page 17 & 18) by RIDEM, taken from Yawgoo Pond, South Kingstown, 2010

Photo of water chestnut (page 19-21) by RIDEM, taken at Chapman Pond, Westerly, 2009

Photo of Eurasian milfoil (page 22 & 23) by RIDEM, taken from Blackstone River, 2009

Photo of spiny naiad (page 24-25) by RIDEM, taken at Chapman Pond, Westerly, 2010

Photo of inflated bladderwort (page 26 & 27) by RIDEM, taken from Spring Lake, Burrillville, 2010

Photo of water hyacinth (page 28 & 29) by RIDEM, taken at Pawcatuck River, White Rock Dam, 2012

Photo of Brazilian elodea (page 30 & 31) by RIDEM, taken from Arnold Pond, Coventry, 2009

Photo of yellow floating heart (page 32 & 33) by RIDEM, taken at Dexter Pond, Scituate, 2010

Photo of American lotus (page 34 & 35) by RIDEM, taken at Chapman Pond, Westerly, 2010

Photo of parrot feather (page 36 & 37) by RIDEM, at Pocasset Pond (Memorial Park Pond), Johnston, 2014

Photo of sacred lotus (page 38) by RIDEM, taken at Meshanticut Pond, Cranston, 2018

Photo of sacred lotus (page 39) by RIDEM, taken at Meshanticut Pond, Cranston, 2020

Photo of Asian clam (page 40) by RIDEM, taken from Lake Mishnock, West Greenwich, 2009

Photo of Asian clam (page 41 & 42) by RIDEM, taken from Lake Mishnock, West Greenwich, 2009

Photo of Chinese mystery snail (page 43) by RIDEM, taken at Oak Swamp Reservoir, Johnston, 2009

Photo of Chinese mystery snail (pages 44 & 45) by RIDEM, taken at Turner Reservoir, E. Providence, 2011

Overview and Contents

Between 2007 and 2020 the Rhode Island Department of Environmental Management, Office of Water Resources (OWR) has been documenting the presence of aquatic invasive species (AIS) in lakes, ponds and rivers, statewide. RIDEM OWR monitors approximately 20 lakes or ponds during the summer by visually surveying for invasives, and as resources allow, may visit additional ponds in response to public concerns. To date, RIDEM has visited 164 lakes or ponds, and visited hundreds of sites on streams.

As of November 2020, at least one invasive species was documented by RIDEM staff at 106 lakes or ponds (65% of the visited locations) in addition to invasives found at sites along 27 distinct rivers. A map of this data and list of each location by town, with the invasives species that were identified can be downloaded here: <http://www.dem.ri.gov/programs/benviron/water/wetlands/pdfs/invasive.pdf>. Provided herein are maps showing the species-specific statewide distribution of 16 different invasive species (see page number below) accompanied by a list of locations where the species was documented (plants in order below from least to most common).

Number of Documented Freshwaters with Invasive Species (as of November 6, 2020) (listed most common to least common)

Invasive Species	Scientific Name	Rivers	Lakes/Ponds	Total	Page Number
1. Variable milfoil	<i>Myriophyllum heterophyllum</i>	19	69	88	(1)
2. Fanwort	<i>Cabomba caroliniana</i>	16	61	77	(8)
3. Curly-leaf pondweed	<i>Potamogeton crispus</i>	7	13	20	(14)
4. Mudmat	<i>Glossostigma cleistanthum</i>	1	12	13	(17)
5. Water chestnut	<i>Trapa natans</i>	1	13	14	(19)
6. Eurasian milfoil	<i>Myriophyllum spicatum</i>	2	11	13	(22)
7. Spiny naiad	<i>Najas minor</i>	0	9	9	(24)
8. Inflated bladderwort	<i>Utricularia inflata</i>	0	7	7	(26)
9. Water hyacinth	<i>Eichhornia crassipes</i>	1	4	5	(28)
10. Brazilian elodea	<i>Egeria densa</i>	0	5	5	(30)
11. Yellow floating heart	<i>Nymphoides peltate</i>	0	3	3	(32)
12. American lotus	<i>Nelumbo lutea</i>	0	2	2	(34)
13. Parrot feather	<i>Myriophyllum aquaticum</i>	0	1	1	(36)
14. Sacred lotus	<i>Nelumbo nucifera</i>	0	1	1	(38)
15. Asian clam	<i>Corbicula fluminea</i>	8	16	24	(40)
16. Chinese mystery snail	<i>Cipangopadula chinensis</i>	3	22	25	(43)
Total waterbodies with at least one invasive*		27	106	*some waterbodies have more than one invasive species; therefore, total reflects distinct waterbodies	

Fact Sheets

For more information on the specific invasive species, fact sheets are also available on the RIDEM website. They have been updated in January 2018, so if you have visited these pages before, please refresh your browser.

Parrot Feather

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/myraqu-fs.pdf>

American Lotus

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/lotus-fs.pdf>

Yellow Floating Heart

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/nympel-fs.pdf>

Brazilian Elodea

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/egeden-fs.pdf>

Water Hyacinth

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/eicra-fs.pdf>

Inflated Bladderwort

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/bladderwort-fs.pdf>

Water Chestnut

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/tranat-fs.pdf>

Spiny Naiad

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/najmin-fs.pdf>

Mudmat

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/glocle-fs.pdf>

Eurasian milfoil

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/myrspi-fs.pdf>

Curly-leaf Pondweed

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/potcri-fs.pdf>

Fanwort

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/cabcar-fanwort-fs.pdf>

Variable Milfoil

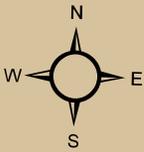
<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/variable-milfoil-fs.pdf>

Asian Clam

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/corflu-fs.pdf>

Chinese Mystery Snail

<http://www.dem.ri.gov/programs/benviron/water/quality/surfwq/aisfs/cipchi-fs.pdf>

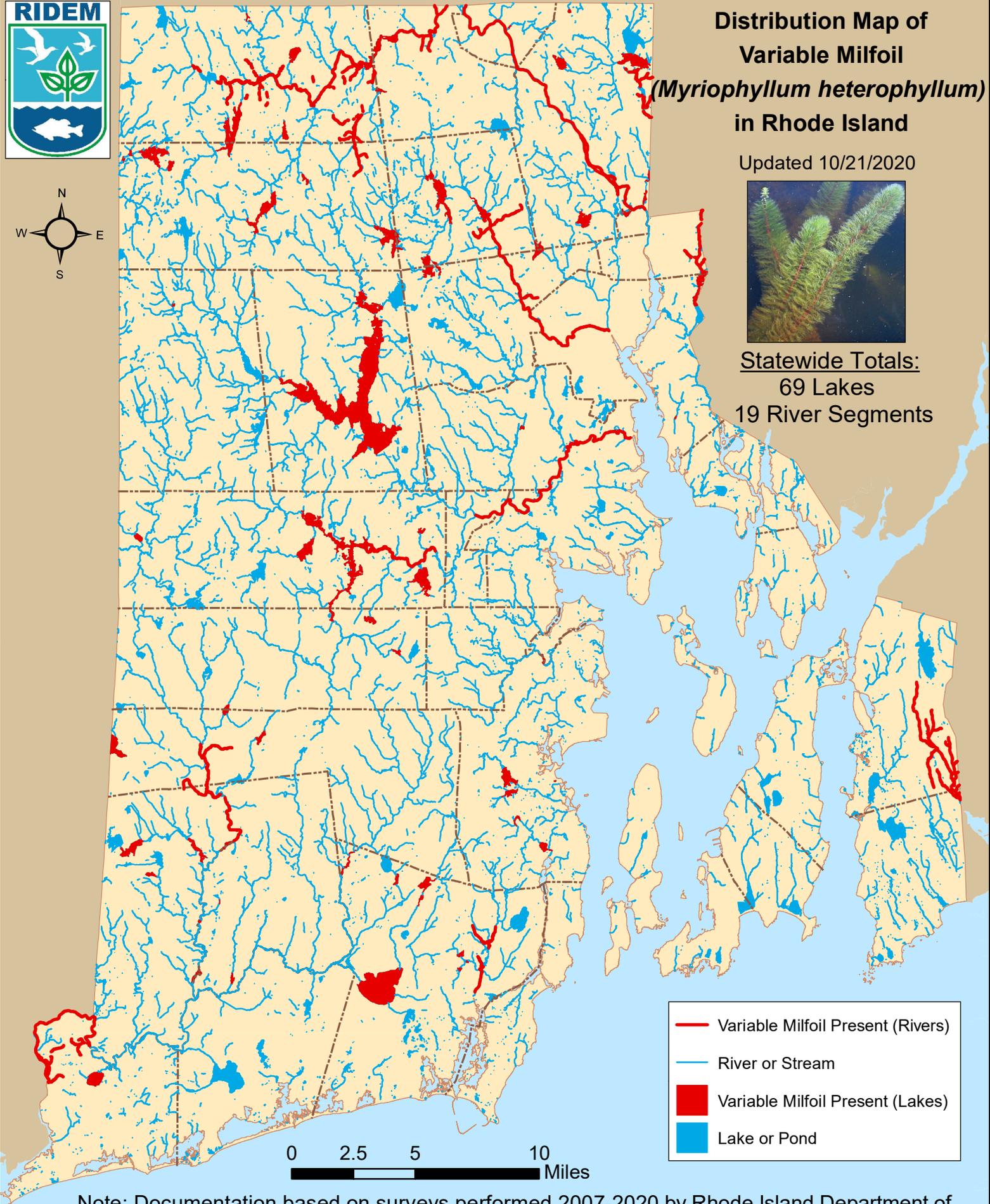


Distribution Map of Variable Milfoil (*Myriophyllum heterophyllum*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
69 Lakes
19 River Segments



- Variable Milfoil Present (Rivers)
- River or Stream
- Variable Milfoil Present (Lakes)
- Lake or Pond

Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of variable milfoil (*M. heterophyllum*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Abbott Run Brook North & Tribs	5/13/2009	7/7/2009
2	Adamsville Brook & Tribs	9/7/2012	9/7/2012
3	Blackstone River (Seg A)	7/22/2009	8/11/2020
4	Branch River & Tribs (Seg A)	7/15/2009	7/20/2009
5	Branch River & Tribs (Seg B)	7/15/2009	7/15/2009
6	Clear River & Tribs (Seg C)	8/1/2007	8/15/2018
7	Clear River (Seg D)	8/1/2007	8/1/2007
8	Pawcatuck River & Tribs	8/6/2009	9/8/2020
9	Pawtuxet River (Main Stem)	6/28/2010	9/9/2020
10	Pawtuxet River (South Branch Seg A)	6/27/2018	6/27/2018
11	Saugatucket River & Tribs	7/20/2010	7/20/2010
12	Tarkiln Brook & Tribs (Seg A)	7/20/2009	7/20/2009
13	Tarkiln Brook & Tribs (Seg B)	5/20/2009	7/20/2009
14	Ten Mile River & Tribs	8/10/2007	6/5/2019
15	Wood River & Tribs (Seg A)	7/9/2009	7/10/2009
16	Wood River (Seg B)	9/30/2008	8/16/2012
17	Woonasquatucket River & Tribs (Seg B)	6/1/2009	6/28/2019
18	Woonasquatucket River & Tribs (Seg C)	6/1/2009	6/4/2019
19	Woonasquatucket River (Seg D)	6/17/2009	6/28/2019

Burrillville



Distribution of variable milfoil (*M. heterophyllum*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Burrillville</u>			
20	Echo Lake (Pascoag Reservoir)	9/12/2008	9/13/2012
21	Round Top State Pond	6/11/2010	6/26/2019
22	Spring Lake (Herring Pond)	6/3/2010	6/8/2018
23	Sucker Pond	8/20/2018	8/20/2018
<u>Central Falls</u>			
24	Valley Falls Pond	8/9/2017	8/9/2017
<u>Coventry</u>			
25	Carbuncle Pond	6/15/2009	8/31/2020
26	Coventry Reservoir (Stump Pond)	9/4/2008	7/27/2016
27	Flat River Reservoir (Johnson Pond)	8/22/2008	9/21/2018
28	Tiogue Lake	9/5/2007	9/9/2020
29	Upper Dam Pond	8/28/2020	8/28/2020
<u>Cranston</u>			
30	Meshanticut Pond	8/6/2018	9/11/2020
<u>Cumberland</u>			
31	Arnold Mills Reservoir (Pawtucket Reservoir)	6/24/2011	6/24/2011
32	Carls Pond	9/1/2020	9/1/2020
33	Happy Hollow Pond	8/18/2010	8/18/2010
34	Robin Hollow Pond	8/18/2010	8/18/2010
35	Sneech Pond	6/3/2010	9/24/2018
36	Sylvn's Pond (Sylvn's Brook Pond)	8/7/2014	10/4/2017



Distribution of variable milfoil (*M. heterophyllum*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>East Providence</u>			
37	Central Pond	9/30/2009	8/13/2020
38	Willet Pond	9/11/2012	9/17/2020
<u>Exeter</u>			
39	Beach Pond	6/19/2019	6/19/2019
40	Boone Lake	8/25/2011	8/25/2011
41	Breakheart Pond	9/5/2007	8/19/2020
<u>Foster</u>			
42	Shippee Saw Mill Pond	9/26/2007	8/15/2017
<u>Glocester</u>			
43	Bowdish Reservoir	9/25/2007	6/15/2018
44	Clarksville Pond	6/30/2010	8/24/2018
45	Hawkins Pond (Glocester)	9/28/2016	9/28/2016
46	Keech Pond	9/26/2007	8/1/2017
47	Lake Washington	8/2/2007	6/10/2019
48	Sawmill Pond	6/30/2010	9/5/2018
49	Smith & Sayles Reservoir	9/26/2007	9/28/2015
50	Spring Grove Pond	10/5/2009	6/8/2018
51	Waterman Reservoir	7/17/2009	7/27/2016
<u>Hopkinton</u>			
52	Alton Pond	9/5/2007	6/7/2018
53	Ashville Pond	9/5/2007	7/5/2019
54			



Distribution of variable milfoil (*M. heterophyllum*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Hopkinton</u>			
54	Locustville Pond	9/3/2008	9/9/2020
55	Wincheck Pond	6/2/2011	6/2/2011
56	Wyoming Pond	9/30/2008	9/11/2017
<u>Johnston, Smithfield</u>			
57	Slack Reservoir	7/13/2009	10/19/2011
<u>Lincoln</u>			
58	Olney Pond	5/27/2010	7/16/2020
<u>North Kingstown</u>			
59	Belleville Ponds	9/10/2007	8/6/2020
60	Carr Pond (N. Kingstown)	9/28/2009	6/16/2016
61	Mill Pond (NK)	8/2/2018	8/2/2018
62	Potowomut Pond	8/29/2008	8/29/2008
63	Secret Lake	7/3/2009	6/18/2010
64	Silver Spring Lake	8/27/2009	8/16/2017
<u>North Providence</u>			
65	Wenscott Reservoir (Twin Rivers)	6/10/2009	8/3/2020
<u>North Smithfield</u>			
66	Slatersville Reservoir	9/25/2007	7/20/2017
67	Tarkiln Pond	6/25/2009	8/30/2018
<u>Richmond</u>			
68	Carolina Trout Pond	7/9/2009	8/28/2017
69	Meadowbrook Pond (Sandy Pond)	10/6/2009	8/21/2017



Distribution of variable milfoil (*M. heterophyllum*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Scituate</u>			
70	Peeptoad Pond	8/23/2012	8/23/2012
71	Regulating Reservoir	6/17/2010	7/11/2012
72	Scituate Reservoir	8/2/2011	8/3/2011
<u>Smithfield</u>			
73	Georgiaville Pond	8/7/2007	6/28/2019
74	Hawkins Pond	6/23/2015	9/14/2018
75	Woonasquatucket Reservoir (Stump Pond)	7/13/2009	7/31/2018
<u>South Kingstown</u>			
76	Asa Pond	7/2/2019	7/2/2019
77	Barber Pond	8/29/2007	7/27/2017
78	Glen Rock Reservoir	7/1/2010	9/6/2018
79	Hundred Acre Pond	9/3/2009	9/3/2009
80	Peace Dale Reservoir	7/12/2012	8/10/2017
81	Rocky Brook Reservoir	6/14/2010	8/2/2018
82	Thirty Acre Pond	9/3/2009	9/3/2009
83	Worden Pond	10/2/2009	10/2/2009
<u>West Greenwich</u>			
84	Mishnock Lake	9/4/2008	8/27/2018
85	Reynolds Pond	9/5/2007	6/16/2010
86	Tarbox Pond	9/5/2007	8/17/2017
<u>Westerly</u>			
87			



Distribution of variable milfoil (*M. heterophyllum*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Westerly</u>			
87	Chapman Pond	7/14/2020	7/14/2020
<u>Woonsocket</u>			
88	Sylvestre Pond	5/27/2015	8/7/2020

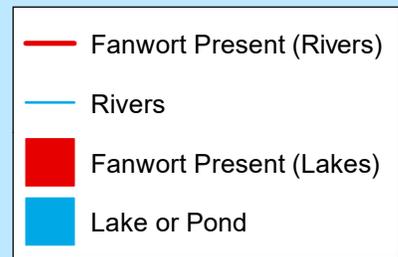
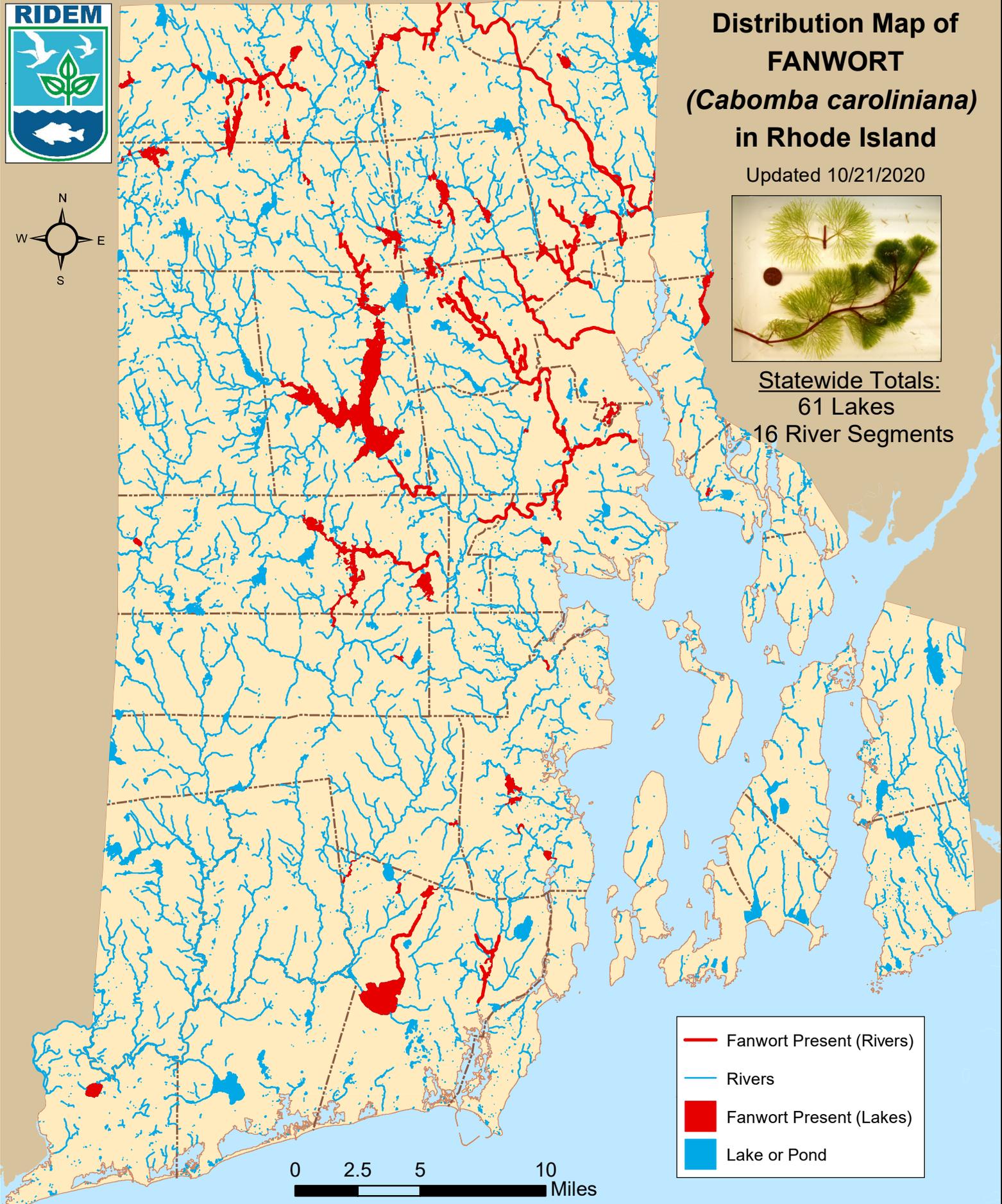


Distribution Map of FANWORT (*Cabomba caroliniana*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
61 Lakes
16 River Segments



Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of fanwort (*Cabomba caroliniana*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Blackstone River (Seg A)	7/29/2008	8/11/2020
2	Branch River & Tribs (Seg B)	7/15/2009	7/15/2009
3	Chipuxet River (Seg C)	10/2/2009	10/2/2009
4	Clear River & Tribs (Seg C)	6/25/2009	8/15/2018
5	Moshassuck River & Tribs (Seg B)	8/17/2009	8/17/2009
6	Pawtuxet River (Main Stem)	7/30/2008	9/9/2020
7	Pawtuxet River (North Branch Seg B)	6/17/2019	6/17/2019
8	Pawtuxet River (South Branch Seg A)	6/27/2018	6/27/2018
9	Peeptoad Brook & Tribs	7/1/2008	7/1/2008
10	Pocasset River & Tribs (Seg A)	7/1/2019	7/1/2019
11	Pocasset River & Tribs (Seg B)	8/8/2018	9/5/2018
12	Saugatucket River & Tribs	7/20/2010	7/20/2010
13	Three Pond Brook	6/19/2012	6/19/2012
14	West River & Tribs (Seg B)	7/14/2009	7/14/2009
15	Woonasquatucket River & Tribs (Seg C)	8/25/2009	6/4/2019
16	Woonasquatucket River (Seg D)	6/17/2009	6/28/2019
<u>Barrington</u>			
17	Echo Lake	9/11/2012	9/17/2020



Distribution of fanwort (*Cabomba caroliniana*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Burrillville</u>			
18	Echo Lake (Pascoag Reservoir)	9/25/2007	9/13/2012
19	Spring Lake (Herring Pond)	9/25/2007	6/8/2018
20	Sucker Pond	10/9/2009	8/20/2018
21	Wakefield Pond	9/10/2007	8/22/2017
<u>Central Falls</u>			
22	Valley Falls Pond	8/9/2017	8/9/2017
<u>Coventry</u>			
23	Carbuncle Pond	9/5/2007	8/31/2020
24	Flat River Reservoir (Johnson Pond)	9/5/2007	9/21/2018
25	Maple Root Pond	7/27/2016	7/27/2016
26	Tiogue Lake	9/5/2007	9/9/2020
<u>Cranston</u>			
27	Meshanticut Pond	8/6/2018	9/11/2020
28	Print Works Pond	8/7/2009	8/7/2009
29	Randall Pond	7/13/2011	7/19/2017
<u>Cumberland</u>			
30	Happy Hollow Pond	8/18/2010	8/18/2010
31	Robin Hollow Pond	8/18/2010	8/18/2010
32	Sneech Pond	6/3/2010	9/24/2018
33			



Distribution of fanwort (*Cabomba caroliniana*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
	Sylvn's Pond (Sylvn's Brook Pond)	8/7/2014	10/4/2017
<u>East Providence</u>			
34	Central Pond	9/30/2009	8/13/2020
35	Turner Reservoir	8/12/2020	8/12/2020
36	Willet Pond	9/11/2012	9/17/2020
<u>Exeter</u>			
37	The Reservoir	7/29/2009	7/29/2009
38	Warwick Sportsman's Association Pond	10/14/2016	9/24/2018
<u>Glocester</u>			
39	Bowdish Reservoir	9/20/2010	6/15/2018
40	Clarksville Pond	6/30/2010	8/24/2018
41	Hawkins Pond (Glocester)	9/28/2016	9/28/2016
42	Sawmill Pond	6/30/2010	9/5/2018
43	Spring Grove Pond	10/5/2009	6/8/2018
44	Waterman Reservoir	7/17/2009	7/27/2016
<u>Johnston, Smithfield</u>			
45	Slack Reservoir	7/13/2009	10/19/2011
<u>Lincoln</u>			
46	Olney Pond	9/6/2007	7/16/2020
<u>North Kingstown</u>			
47	Belleville Ponds	9/10/2007	8/6/2020



Distribution of fanwort (*Cabomba caroliniana*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
48	Carr Pond (N. Kingstown)	9/28/2009	6/16/2016
49	Potowomut Pond	8/29/2008	8/29/2008
50	Secret Lake	7/3/2009	6/18/2010
51	Silver Spring Lake	9/10/2007	8/16/2017
<u>North Providence</u>			
52	Geneva Pond	7/17/2009	5/27/2010
53	Wenscott Reservoir (Twin Rivers)	6/10/2009	8/3/2020
<u>North Smithfield</u>			
54	Slatersville Reservoir	10/9/2009	7/20/2017
55	Tarkiln Pond	6/25/2009	8/30/2018
<u>Providence</u>			
56	Roger Williams Park Ponds	9/14/2009	7/3/2020
<u>Scituate</u>			
57	Peepoad Pond	8/23/2012	8/23/2012
58	Regulating Reservoir	6/17/2010	7/11/2012
59	Scituate Reservoir	8/2/2011	8/3/2011
<u>Smithfield</u>			
60	Georgiaville Pond	9/15/2007	6/28/2019
61	Hawkins Pond	6/20/2011	9/14/2018
62	Lower Sprague Reservoir	8/13/2020	8/13/2020
63			



Distribution of fanwort (*Cabomba caroliniana*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
	Woonasquatucket Reservoir (Stump Pond)	9/26/2007	7/31/2018
<u>South Kingstown</u>			
64	Barber Pond	8/29/2007	7/27/2017
65	Glen Rock Reservoir	9/6/2018	9/6/2018
66	Hundred Acre Pond	9/3/2009	9/3/2009
67	Saugatucket Pond	6/22/2016	6/22/2016
68	Thirty Acre Pond	9/3/2009	9/3/2009
69	Worden Pond	10/2/2009	10/2/2009
<u>Warwick</u>			
70	Gorton Pond	6/15/2010	9/9/2020
71	Three Ponds	9/4/2008	9/4/2008
72	Three Ponds (northern basin)	10/4/2017	10/4/2017
<u>West Greenwich</u>			
73	Reynolds Pond	9/5/2007	6/16/2010
74	Tarbox Pond	9/5/2007	8/17/2017
<u>West Warwick</u>			
75	Juniper Drive Pond	9/24/2020	9/24/2020
<u>Westerly</u>			
76	Chapman Pond	6/23/2016	7/14/2020
<u>Woonsocket</u>			
77	Sylvestre Pond	10/4/2012	8/7/2020



Distribution Map of Curly-leaf Pondweed (*Potamogeton crispus*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
13 Lakes
7 River Segments



Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of curly-leaf pondweed (*P. crispus*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Blackstone River (Seg A)	8/13/2010	8/11/2020
2	Pawtuxet River (Main Stem)	8/11/2009	9/9/2020
3	Pawtuxet River (South Branch Seg A)	7/30/2012	6/27/2018
4	Pocasset River & Tribs (Seg A)	7/1/2019	7/1/2019
5	Pocasset River & Tribs (Seg B)	9/5/2018	9/5/2018
6	Ten Mile River & Tribs	7/3/2009	6/5/2019
7	Three Pond Brook	6/19/2012	6/19/2012
<u>Barrington</u>			
8	Brickyard Pond	9/10/2007	9/14/2020
<u>Cranston</u>			
9	Blackamore Pond	7/25/2017	7/25/2017
<u>East Providence</u>			
10	Central Pond	9/30/2009	8/13/2020
11	Turner Reservoir	6/9/2010	8/12/2020
<u>Exeter</u>			
12	Breakheart Pond	8/19/2020	8/19/2020
<u>Lincoln</u>			
13	Barney Pond	9/30/2009	7/9/2020
14	Olney Pond	5/27/2010	7/16/2020
<u>North Providence</u>			
15	Wenscott Reservoir (Twin Rivers)	6/10/2009	8/3/2020
<u>Providence</u>			
16			



Distribution of curly-leaf pondweed (*P. crispus*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
	Roger Williams Park Ponds	4/26/2010	7/3/2020
<u>Richmond</u>			
17	Meadowbrook Pond (Sandy Pond)	8/21/2017	8/21/2017
<u>Scituate</u>			
18	Regulating Reservoir	7/11/2012	7/11/2012
<u>Warwick</u>			
19	Gorton Pond	6/5/2015	9/9/2020
<u>Westerly</u>			
20	Chapman Pond	7/9/2012	7/14/2020

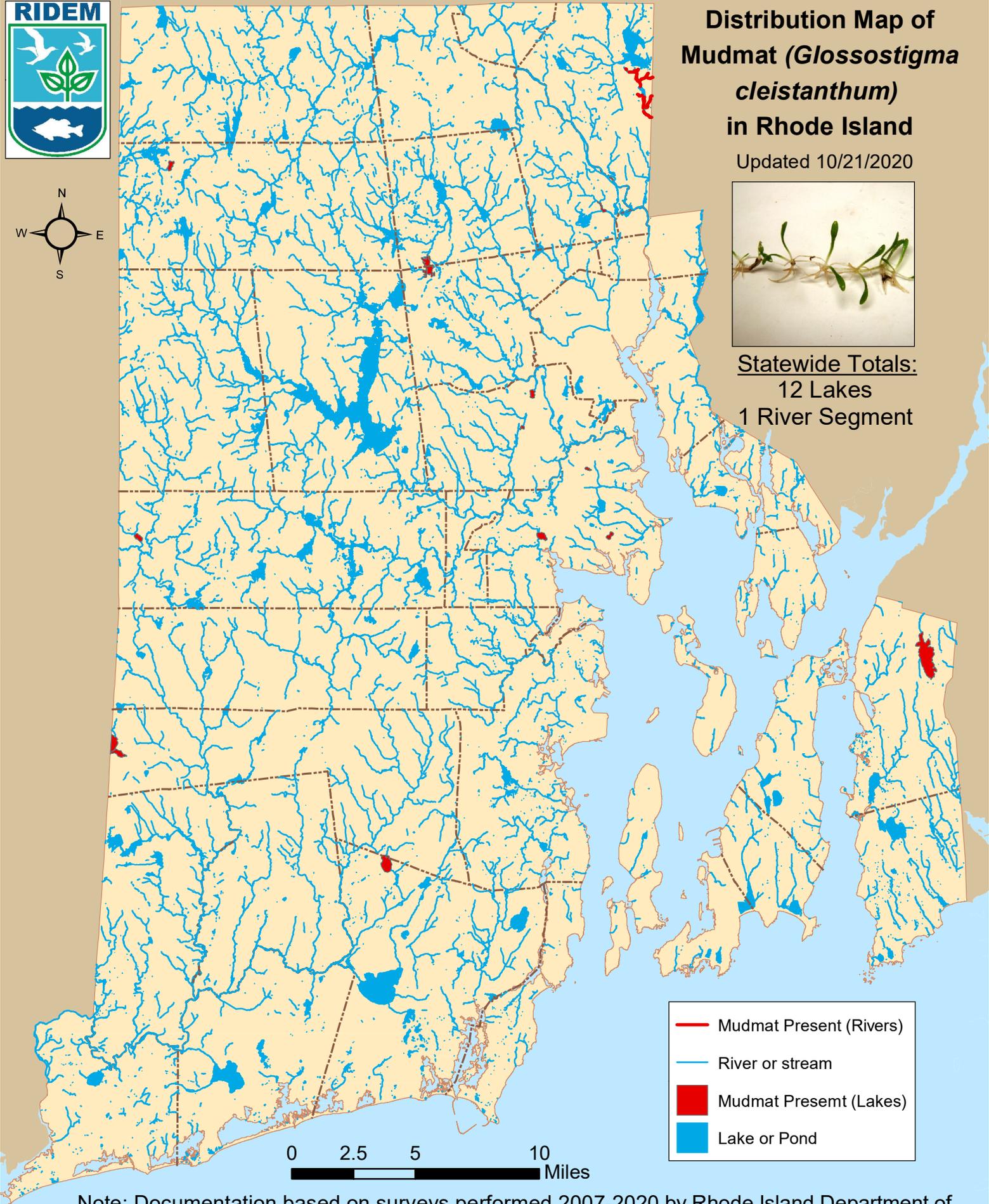


Distribution Map of Mudmat (*Glossostigma cleistanthum*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
12 Lakes
1 River Segment



Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of mudmat (*G. cleistanthum*) in RI

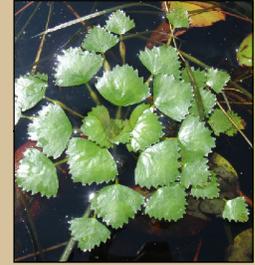
river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Abbott Run Brook North & Tribs	5/13/2009	7/7/2009
<u>Coventry</u>			
2	Carbuncle Pond	10/11/2011	8/31/2020
<u>Cranston</u>			
3	Meshanticut Pond	9/11/2020	9/11/2020
4	Randall Pond	10/13/2011	7/19/2017
<u>Exeter</u>			
5	Beach Pond	6/19/2019	6/19/2019
<u>Glocester</u>			
6	Lake Washington	8/19/2010	6/10/2019
<u>Johnston, Smithfield</u>			
7	Slack Reservoir	10/19/2011	10/19/2011
<u>Lincoln</u>			
8	Barney Pond	6/12/2019	7/9/2020
<u>South Kingstown</u>			
9	Yawgoo Pond	7/1/2010	7/1/2010
<u>Tiverton</u>			
10	Stafford Pond	9/9/2010	9/9/2010
<u>Warwick</u>			
11	Gorton Pond	6/15/2010	9/9/2020
12	Sand Pond (N. of Airport)	6/22/2011	6/22/2011
13	Sandy Pond (S. of Airport) (Little Pond)	7/23/2010	8/7/2018



Distribution Map of Water Chestnut (*Trapa natans*) in Rhode Island

Updated 10/23/2020



Statewide Totals:

13 Lakes

1 River



- Water Chestnut Present (Rivers)
- River or Stream
- Water Chestnut Present (Lake)
- Lake or Pond

Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of water chestnut (*Trapa natans*) in RI

river segments listed first alphabetically; then lakes listed by city or town

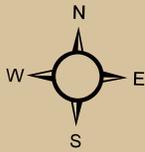
<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Blackstone River (Seg A)	8/11/2020	8/11/2020
<u>Central Falls</u>			
2	Valley Falls Pond	8/9/2017	8/9/2017
<u>Cumberland</u>			
3	Carls Pond	9/1/2020	9/1/2020
<u>East Providence</u>			
4	Central Pond	9/30/2009	8/13/2020
5	Lakeside Cemetery Pond	7/3/2020	7/3/2020
6	Turner Reservoir	7/30/2009	8/12/2020
<u>Foster</u>			
7	Porters Pond	10/1/2008	10/1/2008
<u>Hopkinton</u>			
8	Solitude Springs Farm Ponds	6/11/2016	7/10/2017
<u>Lincoln</u>			
9	Barney Pond	6/12/2019	7/9/2020
10	Olney Pond	6/27/2019	7/16/2020
<u>North Kingstown</u>			
11	Belleville Ponds	7/25/2008	8/6/2020
<u>Providence</u>			
12	Roger Williams Park Ponds	7/27/2018	7/3/2020
<u>Westerly</u>			



Distribution of water chestnut (*Trapa natans*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Westerly</u>			
13	Chapman Pond	7/10/2009	7/14/2020
<u>Woonsocket</u>			
14	Sylvestre Pond	10/4/2012	8/7/2020

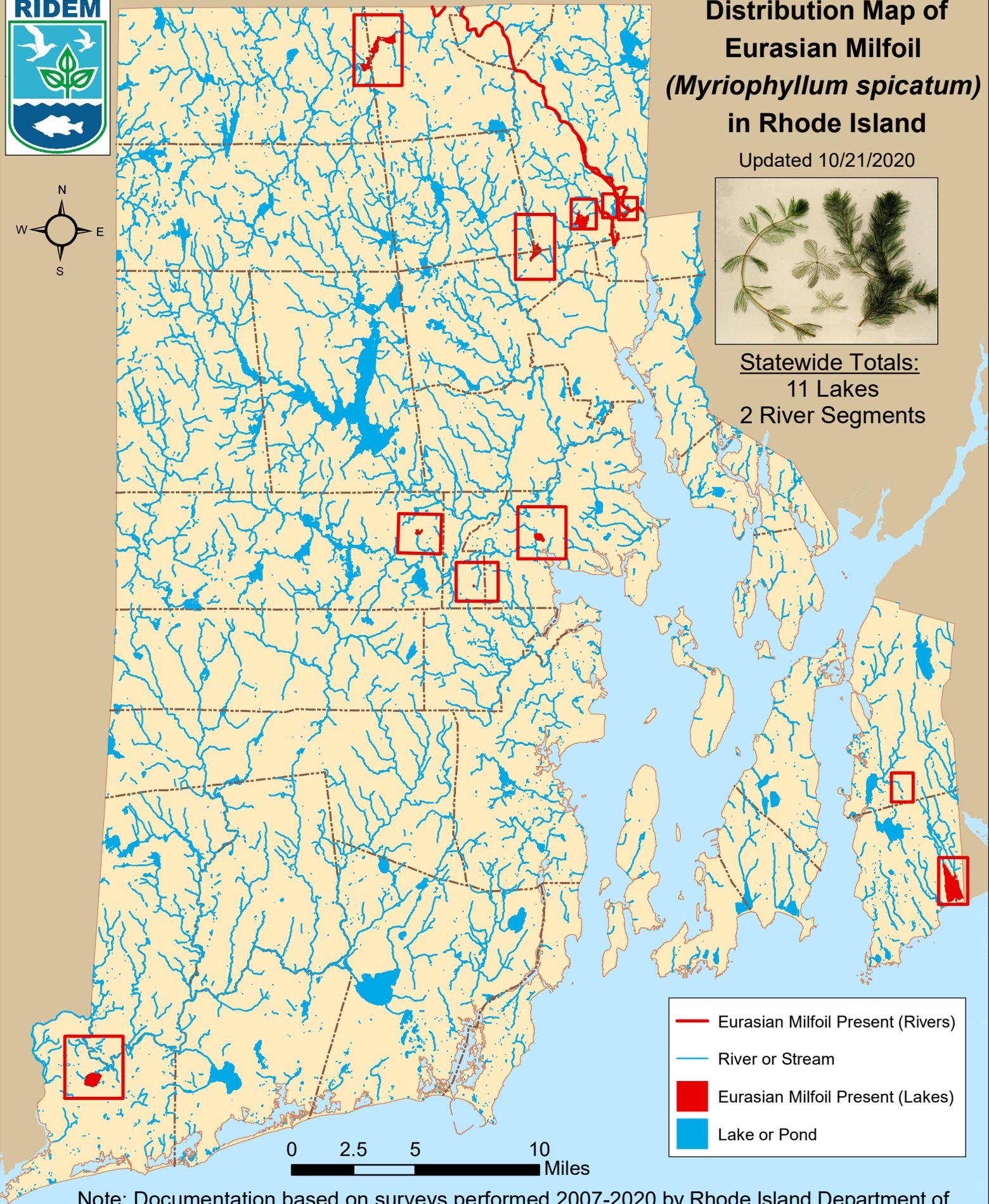


Distribution Map of Eurasian Milfoil (*Myriophyllum spicatum*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
11 Lakes
2 River Segments



- Eurasian Milfoil Present (Rivers)
- River or Stream
- Eurasian Milfoil Present (Lakes)
- Lake or Pond

Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of Eurasian milfoil (*M. spicatum*) in RI

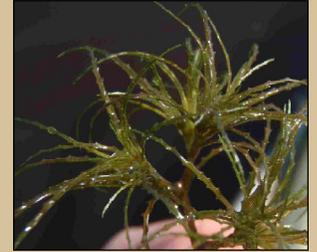
river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Blackstone River (Seg A)	7/22/2009	8/11/2020
2	Moshassuck River & Tribs (Seg B)	8/17/2009	8/17/2009
<u>Central Falls</u>			
3	Valley Falls Pond	8/9/2017	8/9/2017
<u>Coventry</u>			
4	Upper Dam Pond	8/28/2020	8/28/2020
<u>Lincoln</u>			
5	Barney Pond	9/30/2009	7/9/2020
6	Olney Pond	9/6/2007	7/16/2020
<u>Little Compton</u>			
7	Quicksand Pond	9/11/2020	9/11/2020
<u>North Providence</u>			
8	Wenscott Reservoir (Twin Rivers)	7/28/2016	8/3/2020
<u>North Smithfield</u>			
9	Slatersville Reservoir	6/17/2012	7/20/2017
<u>Tiverton</u>			
10	Eight Rod Farm Pond	9/7/2012	9/25/2020
<u>Warwick</u>			
11	Gorton Pond	6/15/2010	9/9/2020
<u>West Warwick</u>			
12	Juniper Drive Pond	8/15/2012	9/24/2020
<u>Westerly</u>			
13	Chapman Pond	9/5/2007	7/14/2020



Distribution Map of Spiny Naiad (*Najas minor*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
9 Lakes



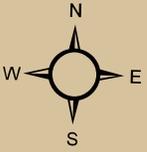
Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of spiny naiad (*Najas minor*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Coventry</u>			
1	Tiogue Lake	8/10/2016	9/9/2020
2	Upper Dam Pond	7/23/2010	8/28/2020
<u>Glocester</u>			
3	Waterman Reservoir	6/21/2011	7/27/2016
<u>Johnston, Smithfield</u>			
4	Slack Reservoir	7/13/2009	10/19/2011
<u>Lincoln</u>			
5	Olney Pond	7/14/2011	7/16/2020
<u>North Providence</u>			
6	Wenscott Reservoir (Twin Rivers)	7/1/2014	8/3/2020
<u>North Smithfield</u>			
7	Slatersville Reservoir	6/17/2012	7/20/2017
<u>Smithfield</u>			
8	Georgiaville Pond	6/21/2011	6/28/2019
<u>Westerly</u>			
9	Chapman Pond	8/10/2010	7/14/2020

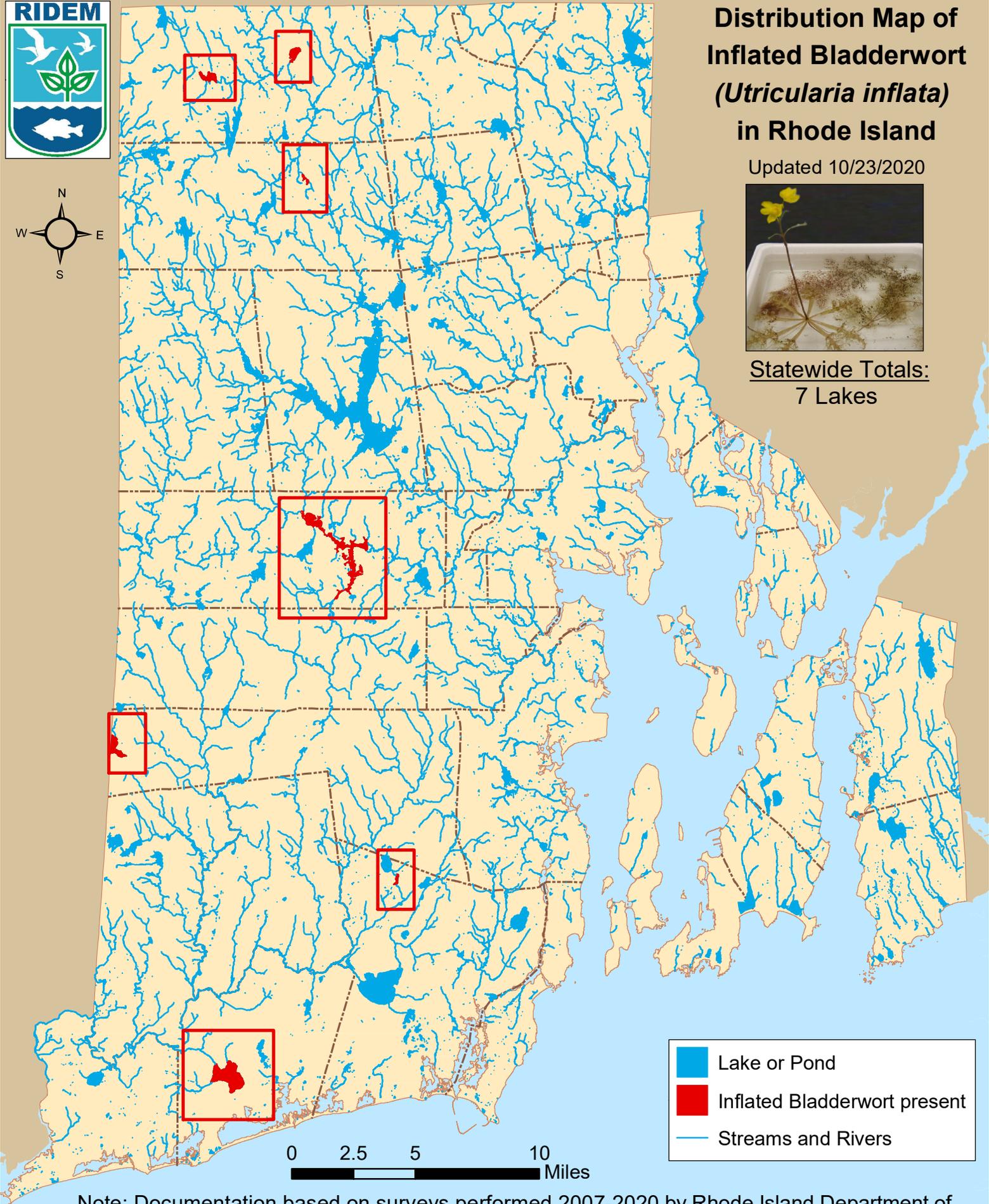


Distribution Map of Inflated Bladderwort (*Utricularia inflata*) in Rhode Island

Updated 10/23/2020



Statewide Totals:
7 Lakes



- Lake or Pond
- Inflated Bladderwort present
- Streams and Rivers

Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of inflated bladderwort (*U. inflata*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Burrillville</u>			
1	Spring Lake (Herring Pond)	6/3/2010	6/8/2018
2	Wilson Reservoir	6/15/2012	8/26/2020
<u>Charlestown</u>			
3	Watchaug Pond	8/31/2012	6/2/2016
<u>Coventry</u>			
4	Flat River Reservoir (Johnson Pond)	7/18/2012	9/21/2018
<u>Exeter</u>			
5	Beach Pond	6/19/2019	6/19/2019
<u>Glocester</u>			
6	Spring Grove Pond	6/1/2016	6/8/2018
<u>South Kingstown</u>			
7	Barber Pond	6/2/2016	7/27/2017

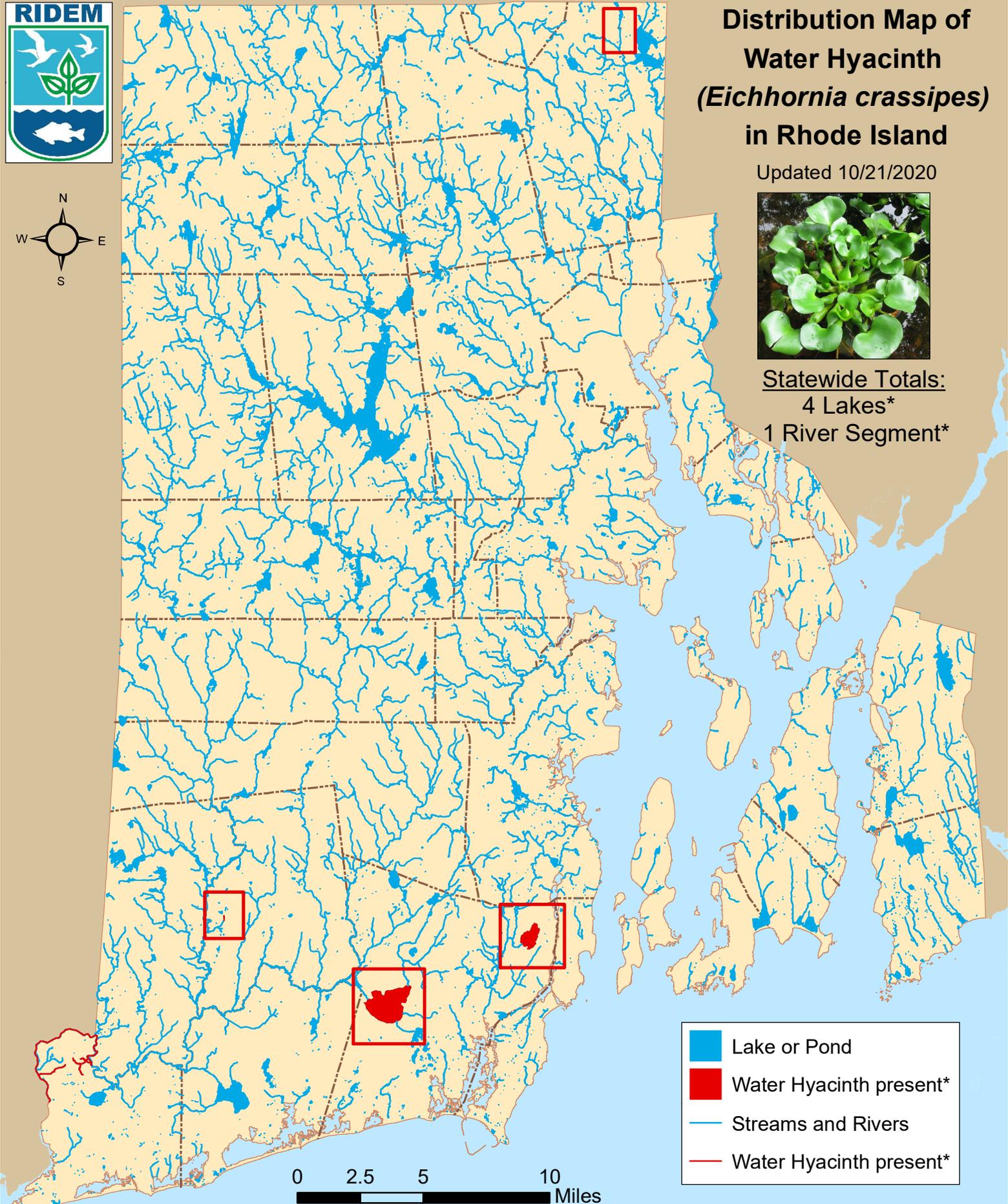


Distribution Map of Water Hyacinth (*Eichhornia crassipes*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
4 Lakes*
1 River Segment*



- Lake or Pond
- Water Hyacinth present*
- Streams and Rivers
- Water Hyacinth present*

Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources.

*Water hyacinth was observed only once during a RIDEM survey, and has not yet shown to overwinter in RI. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of water hyacinth (*E. crassipes*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Pawcatuck River & Tribs	9/6/2012	9/8/2020
<u>Cumberland</u>			
2	Sylvn's Pond (Sylvn's Brook Pond)	8/7/2014	10/4/2017
<u>Richmond</u>			
3	Carolina Trout Pond	10/7/2008	8/28/2017
<u>South Kingstown</u>			
4	Indian Lake	7/29/2009	8/10/2018
5	Worden Pond	9/4/2009	10/2/2009

Note: water hyacinth was found only on date first documented, and has not been found to overwinter yet in Rhode Island

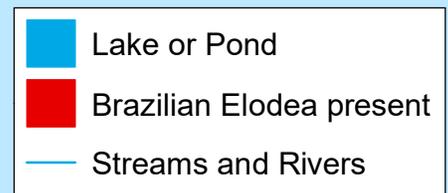
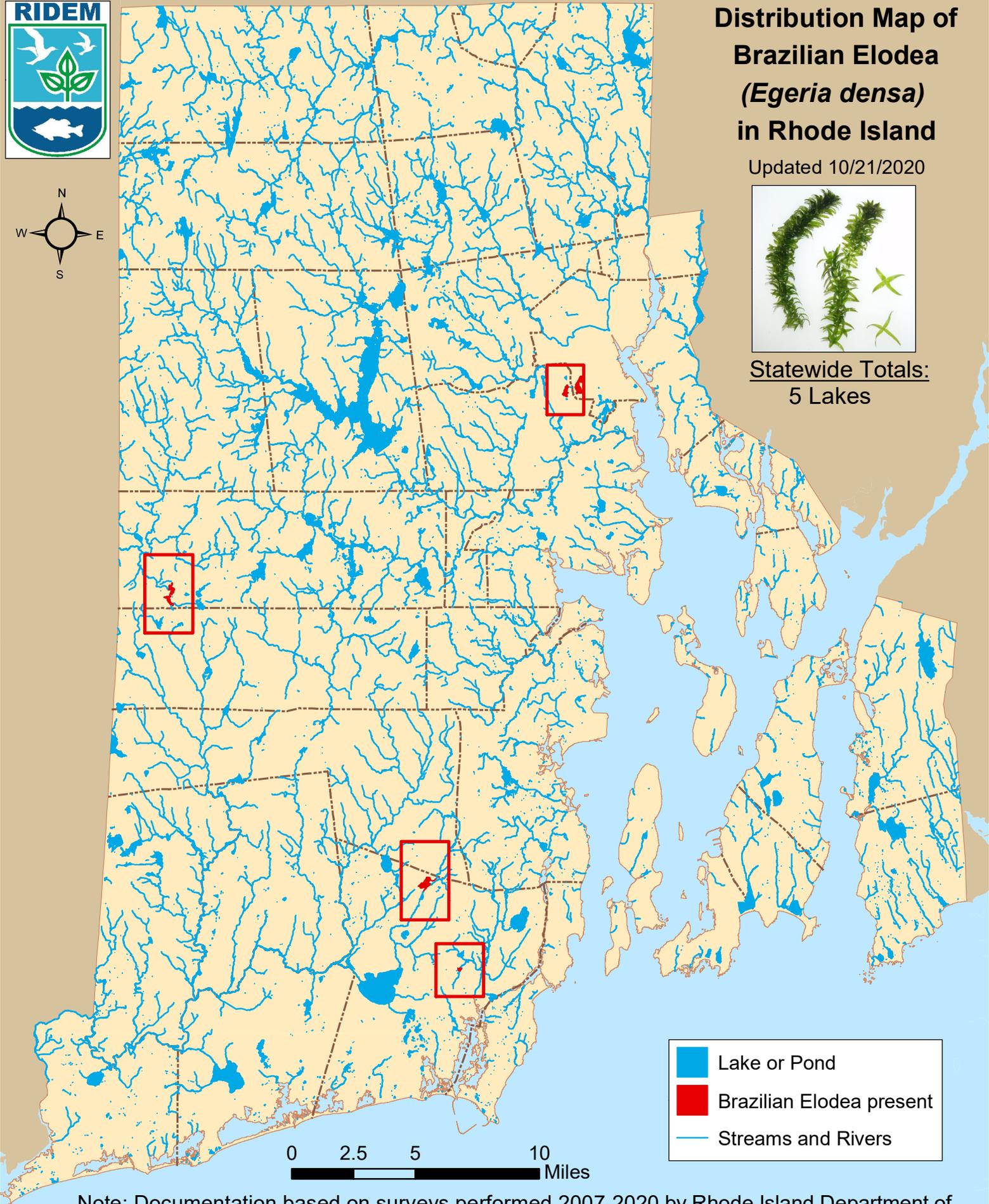


Distribution Map of Brazilian Elodea (*Egeria densa*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
5 Lakes



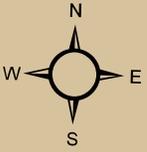
Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of Brazilian elodea (*Egeria densa*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Coventry</u>			
1	Arnold Pond	9/2/2009	9/2/2009
<u>Cranston</u>			
2	Spectacle Pond	9/26/2012	9/26/2012
<u>Providence</u>			
3	Mashapaug Pond	8/8/2019	8/8/2019
<u>South Kingstown</u>			
4	Hundred Acre Pond	9/3/2009	9/3/2009
5	Peace Dale Reservoir	7/6/2017	8/10/2017



Distribution Map of Yellow Floating Heart (*Nymphoides peltata*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
3 Lakes



-  Lake or Pond
-  Yellow Floating Heart present
-  Streams and Rivers

Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of yellow floating heart (*N. peltata*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Hopkinton</u>			
1	Solitude Springs Farm Ponds	7/10/2017	7/10/2017
<u>Little Compton</u>			
2	Peckham Rd. Pond	7/23/2010	7/23/2010
<u>Scituate</u>			
3	Dexter Road Pond	7/14/2010	7/30/2020

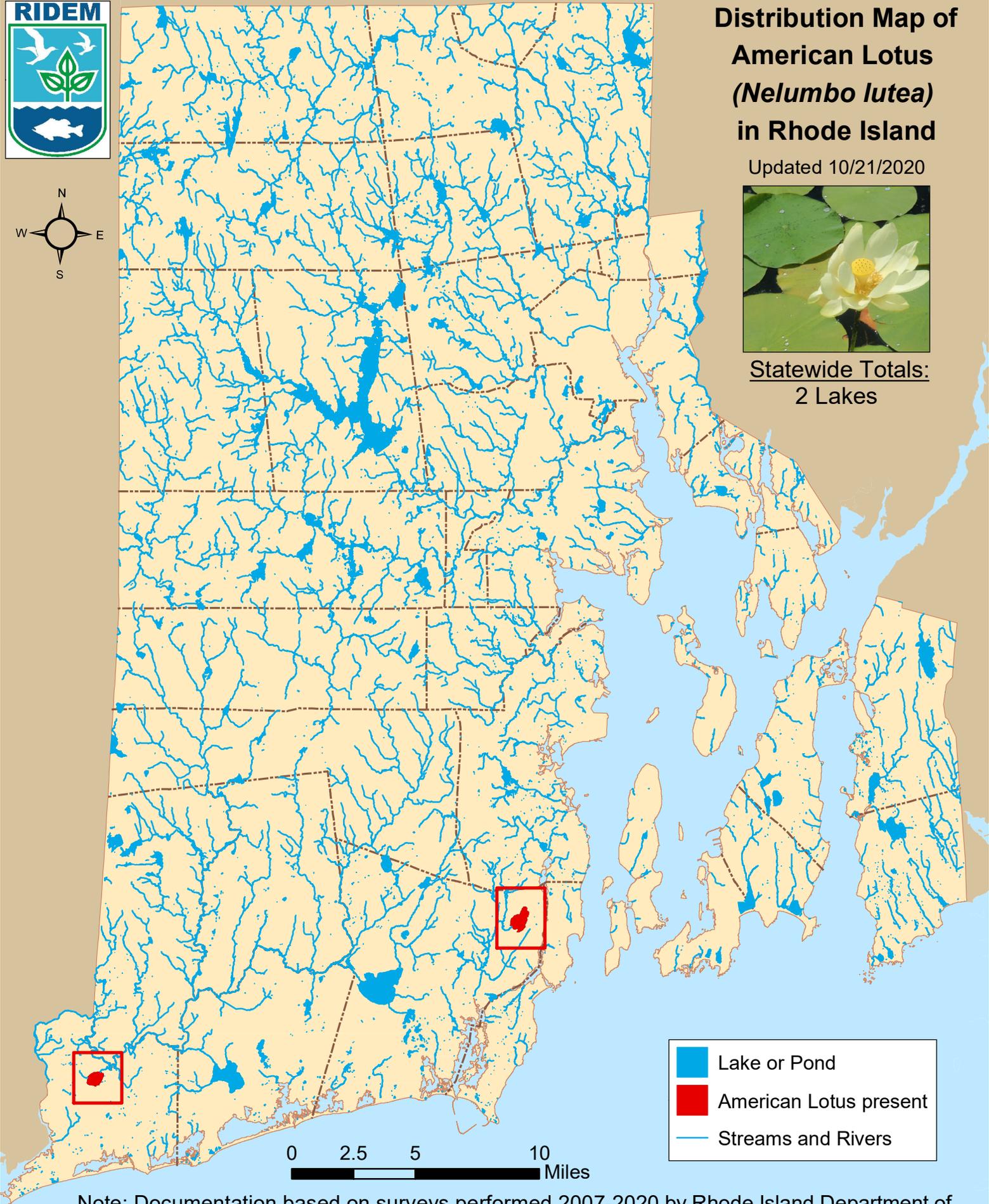


Distribution Map of American Lotus (*Nelumbo lutea*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
2 Lakes



Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of American lotus (*Nelumbo lutea*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>South Kingstown</u>			
1	Indian Lake	7/24/2009	8/10/2018
<u>Westerly</u>			
2	Chapman Pond	8/10/2010	7/14/2020



Distribution Map of Parrot Feather (*Myriophyllum aquaticum*)

in Rhode Island

Updated 10/21/2020



Statewide Totals:
1 Lake



-  Parrot Feather present
-  Streams and Rivers
-  Lake or Pond

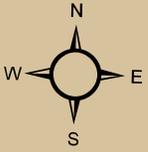
Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of parrot feather (*M. aquaticum*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Johnston</u>			
1	Pocasset Pond (Johnson Mem Park Pond)	8/20/2009	6/26/2019

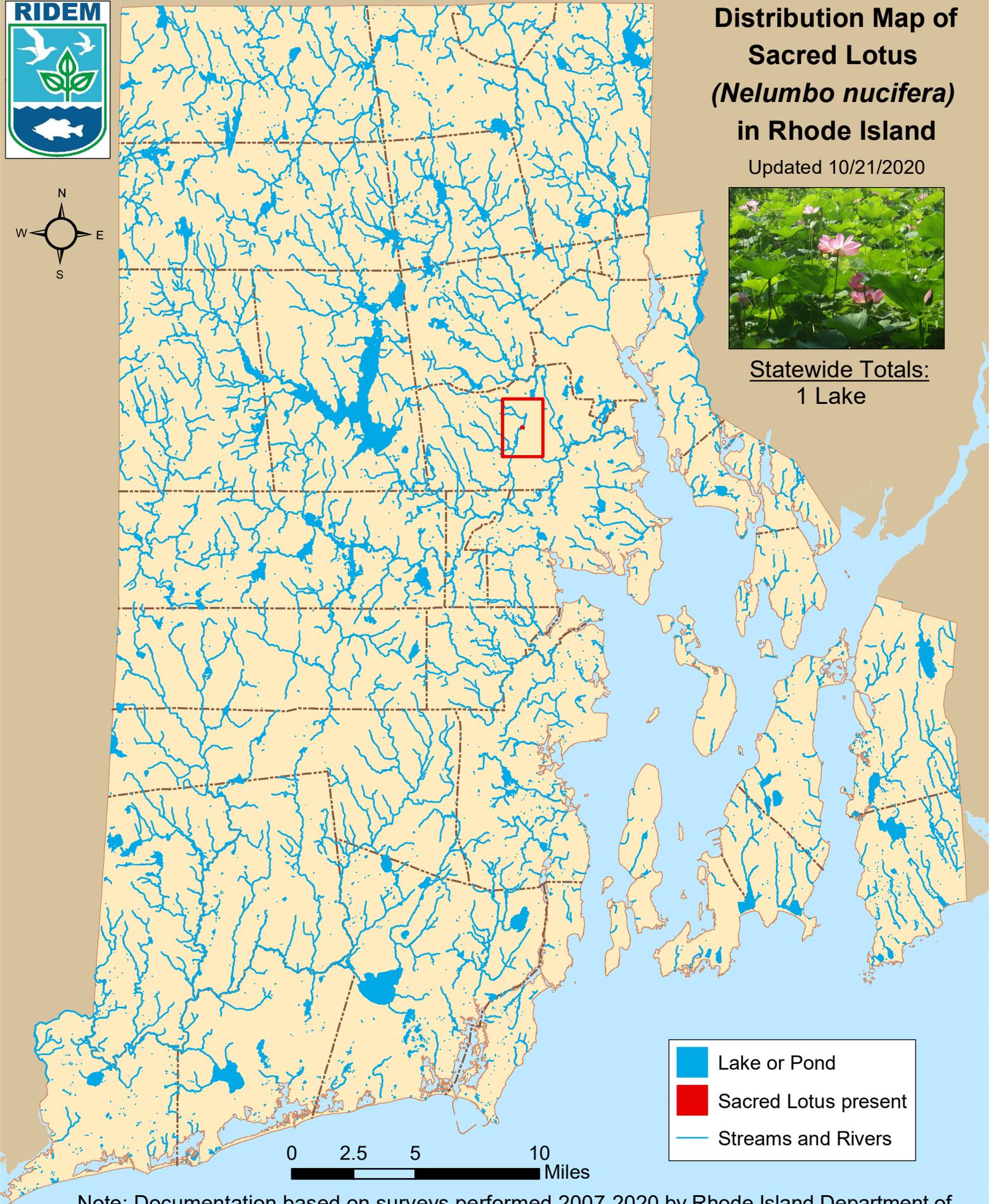


Distribution Map of Sacred Lotus (*Nelumbo nucifera*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
1 Lake



Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of sacred lotus (*Nelumbo nucifera*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
--------------------	------------------------------	--------------------------------	-----------------------------

Cranston

1

Meshanticut Pond

7/27/2018

9/11/2020

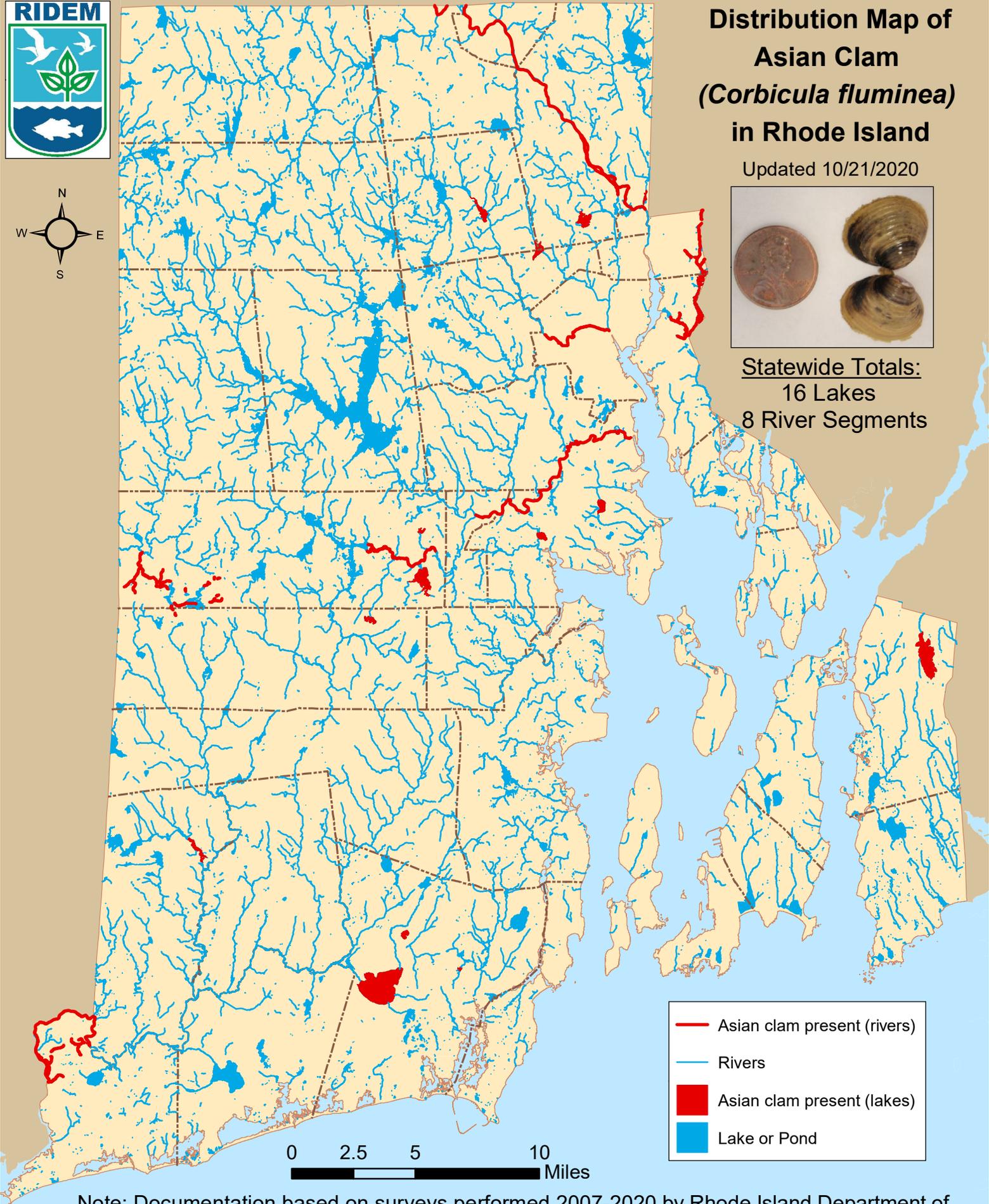


Distribution Map of Asian Clam (*Corbicula fluminea*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
16 Lakes
8 River Segments



- Asian clam present (rivers)
- Rivers
- Asian clam present (lakes)
- Lake or Pond

Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of Asian clam (*C. fluminea*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Blackstone River (Seg A)	8/2/2017	8/11/2020
2	Pawcatuck River & Tribs (Seg E)	8/3/2020	9/8/2020
3	Pawtuxet River (Main Stem)	9/18/2015	9/9/2020
4	Pawtuxet River (South Branch Seg A)	7/30/2012	6/27/2018
5	Roaring Brook & Tribs	8/25/2016	8/25/2016
6	Ten Mile River & Tribs (Seg A)	6/5/2019	6/5/2019
7	Ten Mile River & Tribs (Seg B)	6/5/2019	6/5/2019
8	Woonasquatucket River (Seg D)	6/28/2019	6/28/2019
<u>Coventry</u>			
9	Tiogue Lake	9/5/2007	9/9/2020
10	Upper Dam Pond	7/23/2010	8/28/2020
<u>Cumberland</u>			
11	Happy Hollow Pond	8/18/2010	8/18/2010
<u>East Providence</u>			
12	Central Pond	6/9/2010	8/13/2020
13	Turner Reservoir	8/12/2020	8/12/2020
<u>Hopkinton</u>			
14	Locustville Pond	9/9/2020	9/9/2020
<u>Lincoln</u>			
15	Olney Pond	6/12/2019	7/16/2020
<u>North Providence</u>			
16	Wenscott Reservoir (Twin Rivers)	7/1/2014	8/3/2020



Distribution of Asian clam (*C. fluminea*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>Smithfield</u>			
17	Georgiaville Pond	6/28/2019	6/28/2019
<u>South Kingstown</u>			
18	Larkin Pond	8/21/2019	8/21/2019
19	Peace Dale Reservoir	7/12/2012	8/10/2017
20	Worden Pond	9/21/2007	10/2/2009
<u>Tiverton</u>			
21	Stafford Pond	9/9/2010	9/9/2010
<u>Warwick</u>			
22	Gorton Pond	6/5/2015	9/9/2020
23	Warwick Pond	7/2/2014	7/2/2014
<u>West Greenwich</u>			
24	Mishnock Lake	7/30/2009	8/27/2018



Distribution Map of Chinese Mystery Snail (*Cipangopaludina chinensis*) in Rhode Island

Updated 10/21/2020



Statewide Totals:
22 Lakes
3 River Segments



- Chinese Mystery Snail Present (Rivers)
- Rivers
- Chinese Mystery Snail Present (Lakes)
- Lake or Pond

Note: Documentation based on surveys performed 2007-2020 by Rhode Island Department of Environmental Management (RIDEM) Office of Water Resources. AIS refers only to those plant species present in the floating and submergent plant communities. More information available online: <http://www.dem.ri.gov/programs/water/quality/surface-water/aisplant.php>



Distribution of mystery snail (*C. chinensis*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
<u>RIVERS</u>			
1	Blackstone River (Seg A)	8/2/2017	8/11/2020
2	Cold (Cole) Brook & Tribs	8/14/2019	8/14/2019
3	Pawtuxet River (South Branch Seg A)	6/27/2018	6/27/2018
<u>Barrington</u>			
4	Echo Lake	9/17/2020	9/17/2020
<u>Burrillville</u>			
5	Spring Lake (Herring Pond)	6/8/2018	6/8/2018
<u>Charlestown</u>			
6	Saw Mill Pond	7/28/2020	7/28/2020
<u>Cranston</u>			
7	Meshanticut Pond	7/24/2019	9/11/2020
8	Randall Pond	7/19/2017	7/19/2017
<u>Cumberland</u>			
9	Carls Pond	9/29/2015	9/1/2020
10	Sylvn's Pond (Sylvn's Brook Pond)	10/4/2017	10/4/2017
<u>East Providence</u>			
11	Central Pond	6/17/2016	8/13/2020
<u>Johnston</u>			
12	Oak Swamp Reservoir	7/13/2009	9/27/2012
<u>Lincoln</u>			
13	Barney Pond	6/12/2019	7/9/2020
14	Butterfly Pond	7/25/2019	7/25/2019
15	Handy Pond (Upper Rochambeau Pond)	9/1/2020	9/1/2020
<u>North Kingstown</u>			



Distribution of mystery snail (*C. chinensis*) in RI

river segments listed first alphabetically; then lakes listed by city or town

<u>Town</u>	<u>Waterbody Name</u>	<u>First documented</u>	<u>Last Surveyed</u>
16	Belleville Ponds	6/8/2016	8/6/2020
<u>North Providence</u>			
17	Wenscott Reservoir (Twin Rivers)	7/1/2014	8/3/2020
<u>North Smithfield</u>			
18	Slatersville Reservoir	7/20/2017	7/20/2017
<u>Smithfield</u>			
19	Hawkins Pond	6/23/2015	9/14/2018
20	Woonasquatucket Reservoir (Stump Pond)	7/27/2016	7/31/2018
<u>South Kingstown</u>			
21	Peace Dale Reservoir	8/10/2017	8/10/2017
<u>Warwick</u>			
22	Gorton Pond	6/5/2015	9/9/2020
<u>West Greenwich</u>			
23	Mishnock Lake	9/17/2015	8/27/2018
<u>Woonsocket</u>			
24	Cass Pond	9/1/2020	9/1/2020
25	Sylvestre Pond	5/27/2015	8/7/2020