

EARLY DETECTION OF INVASIVE AQUATIC PLANTS IN COASTAL WATERS OF THE GREAT LAKES

PHASE 2

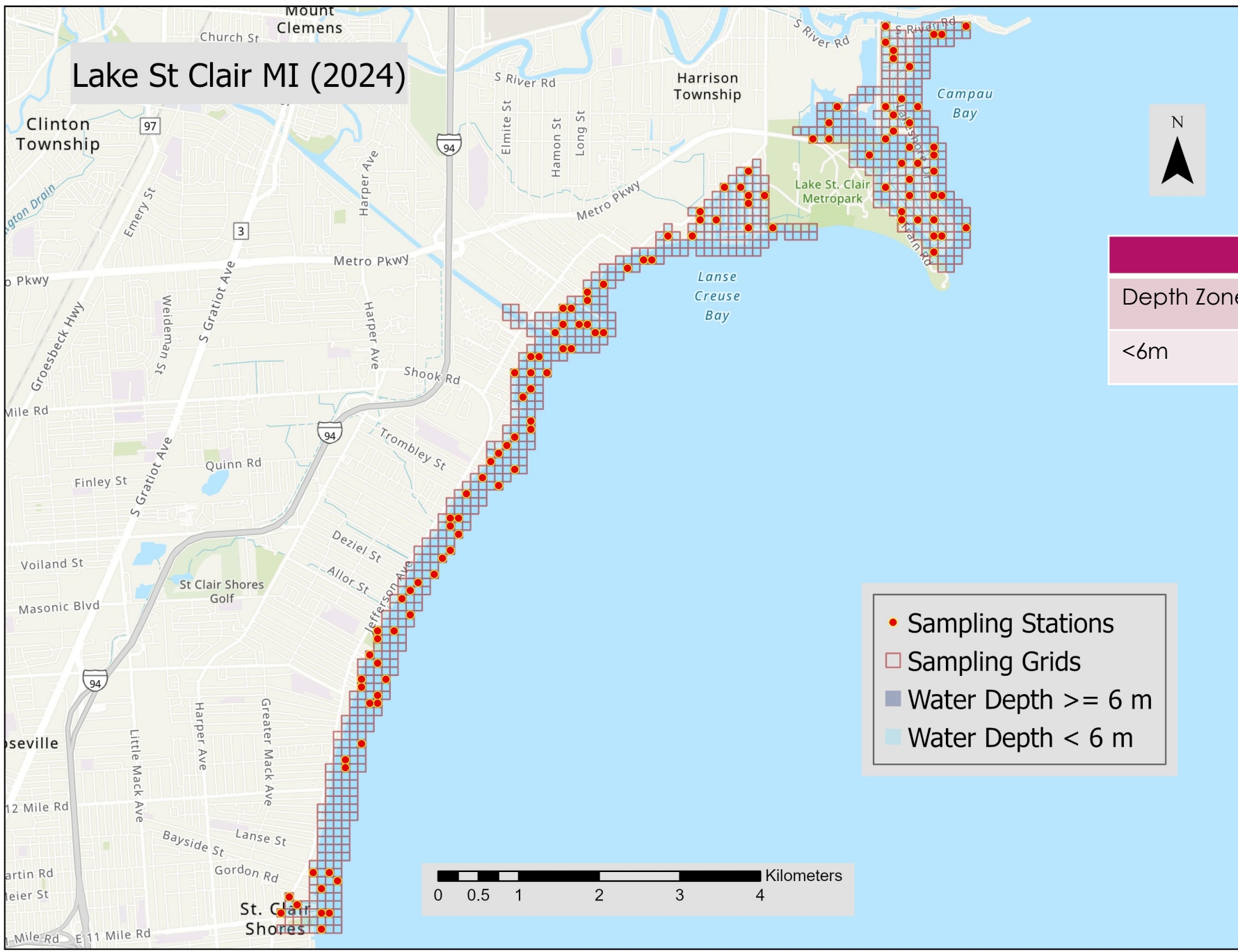
- ▶ Regional aquatic point-intercept
plant surveillance





2024 Preliminary Results

Lake St Clair MI (2024)

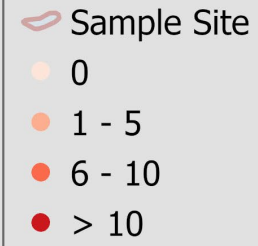
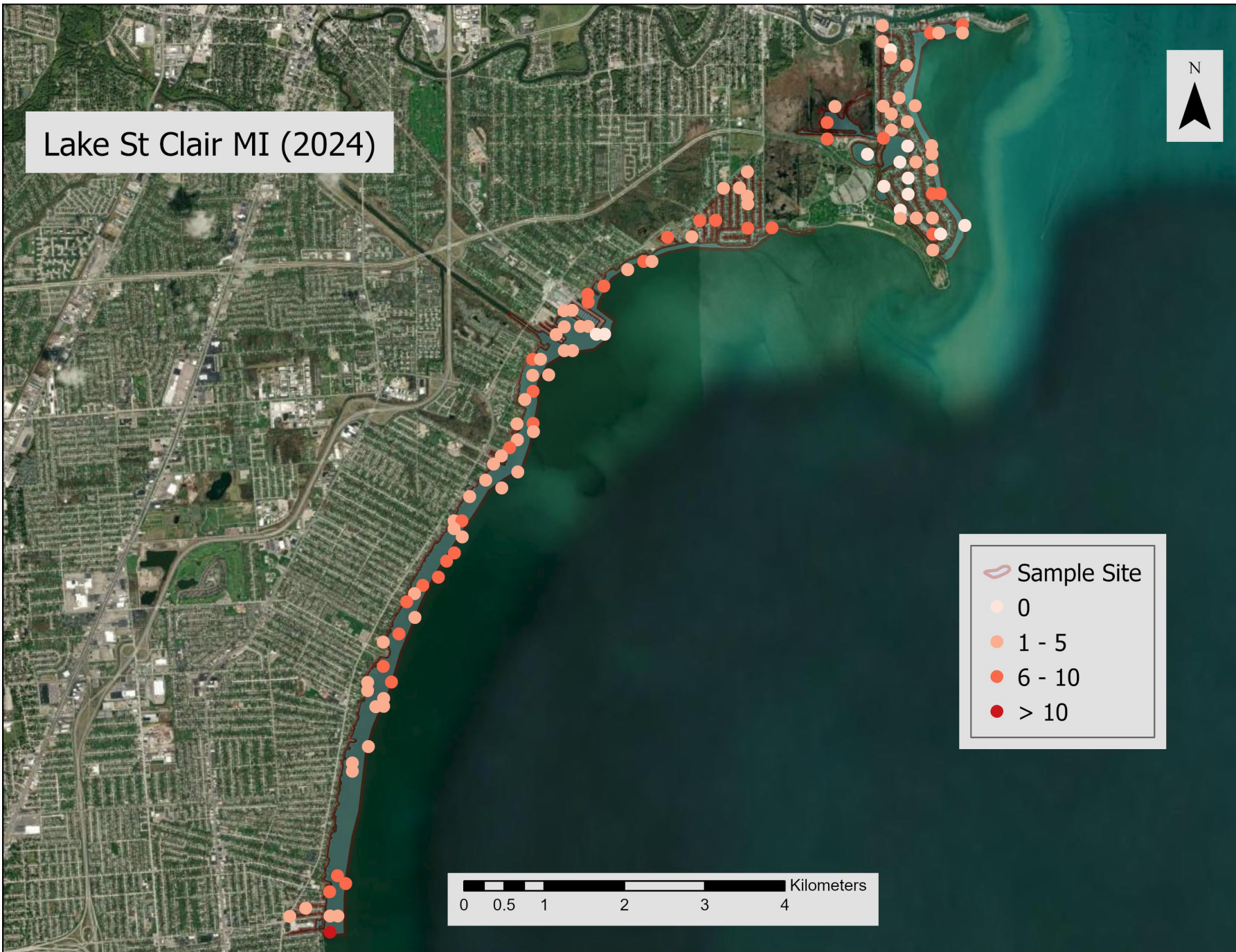


- Sampling Stations
- Sampling Grids
- Water Depth ≥ 6 m
- Water Depth < 6 m

Species Richness			
Depth Zone	Mean	Median	Range
<6m	5	5	0-16

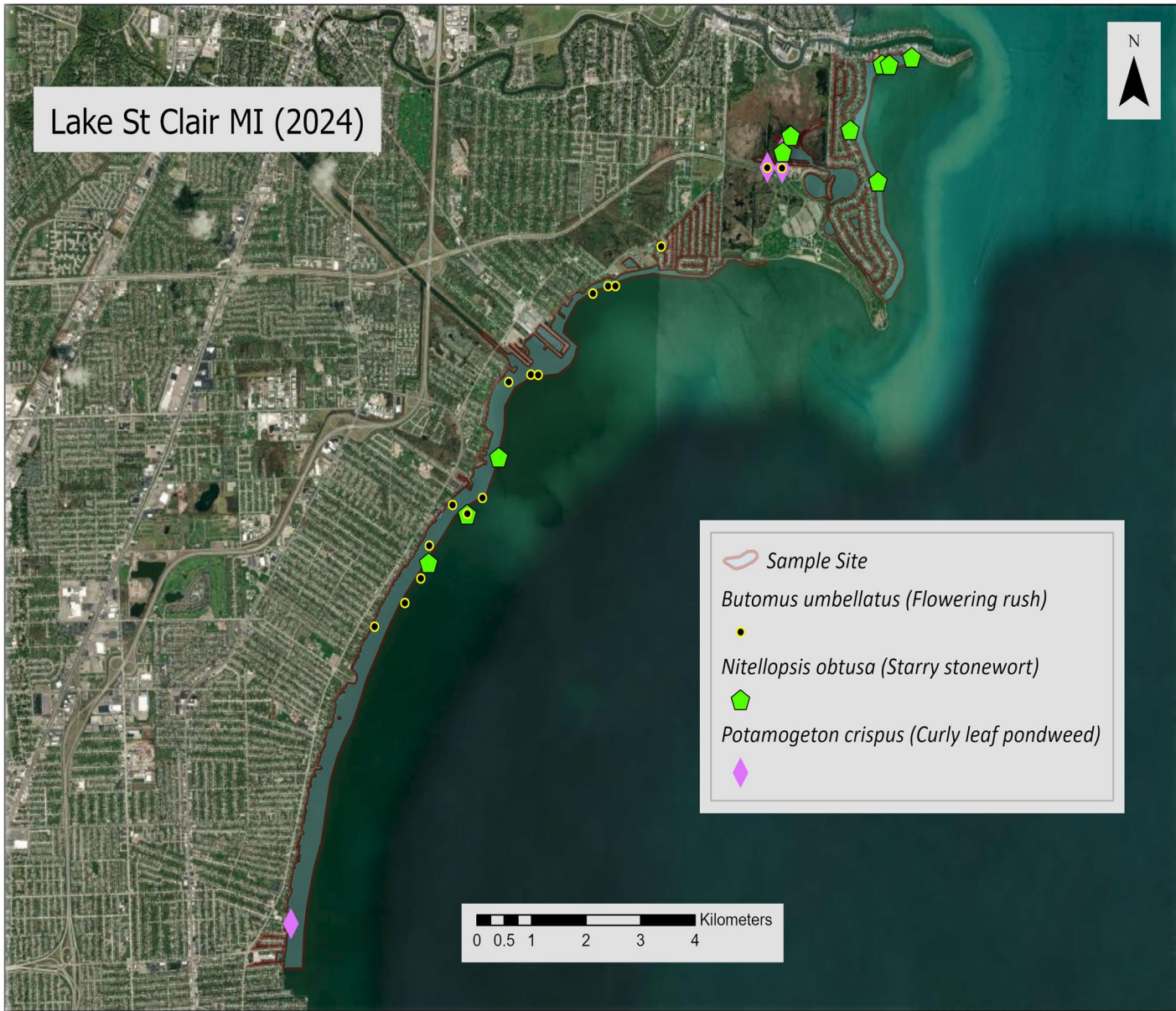
- 39 different taxa were detected, including emergents
- 6 non-native species
- **No new incursions**

Lake St Clair MI (2024)

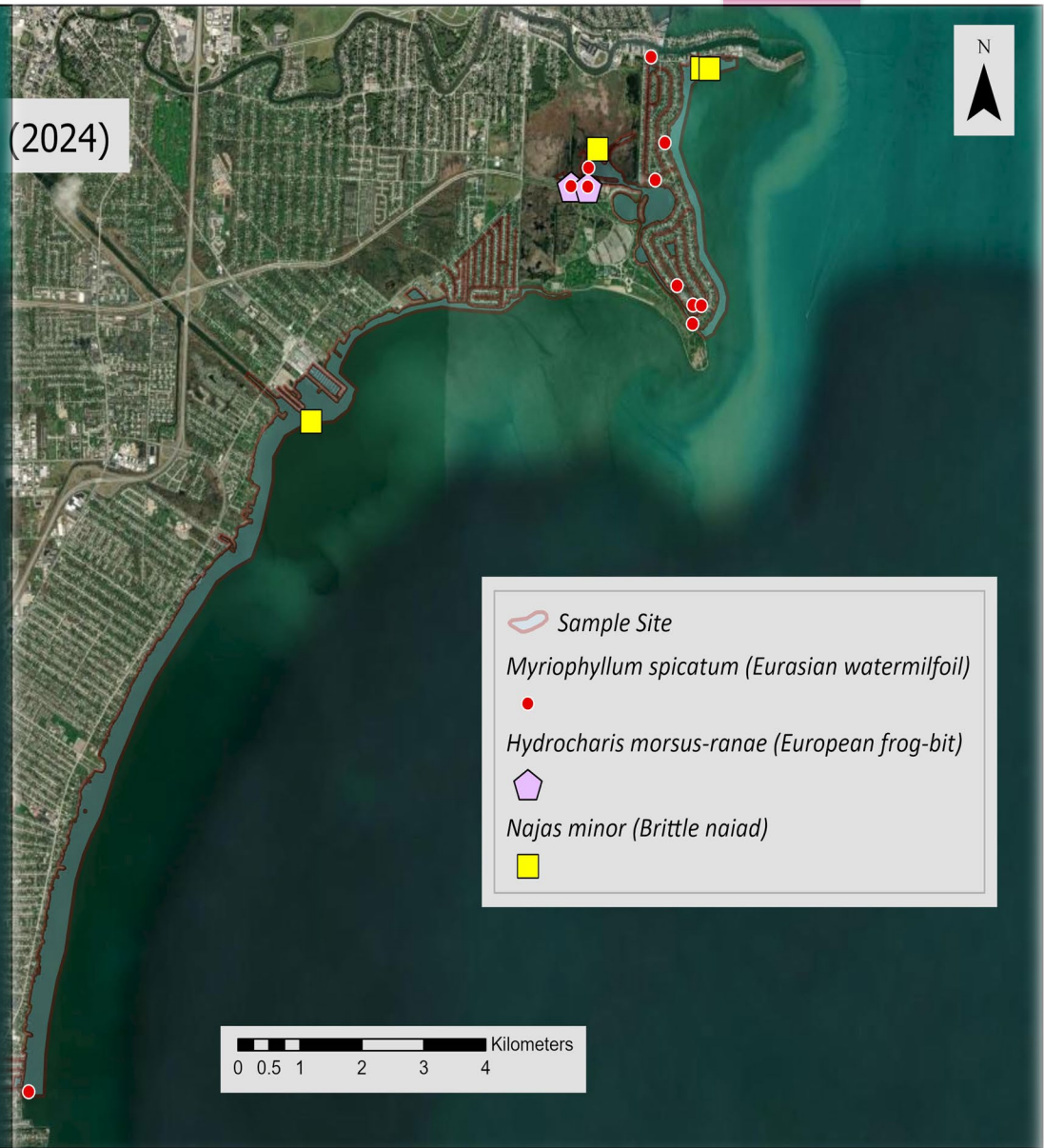


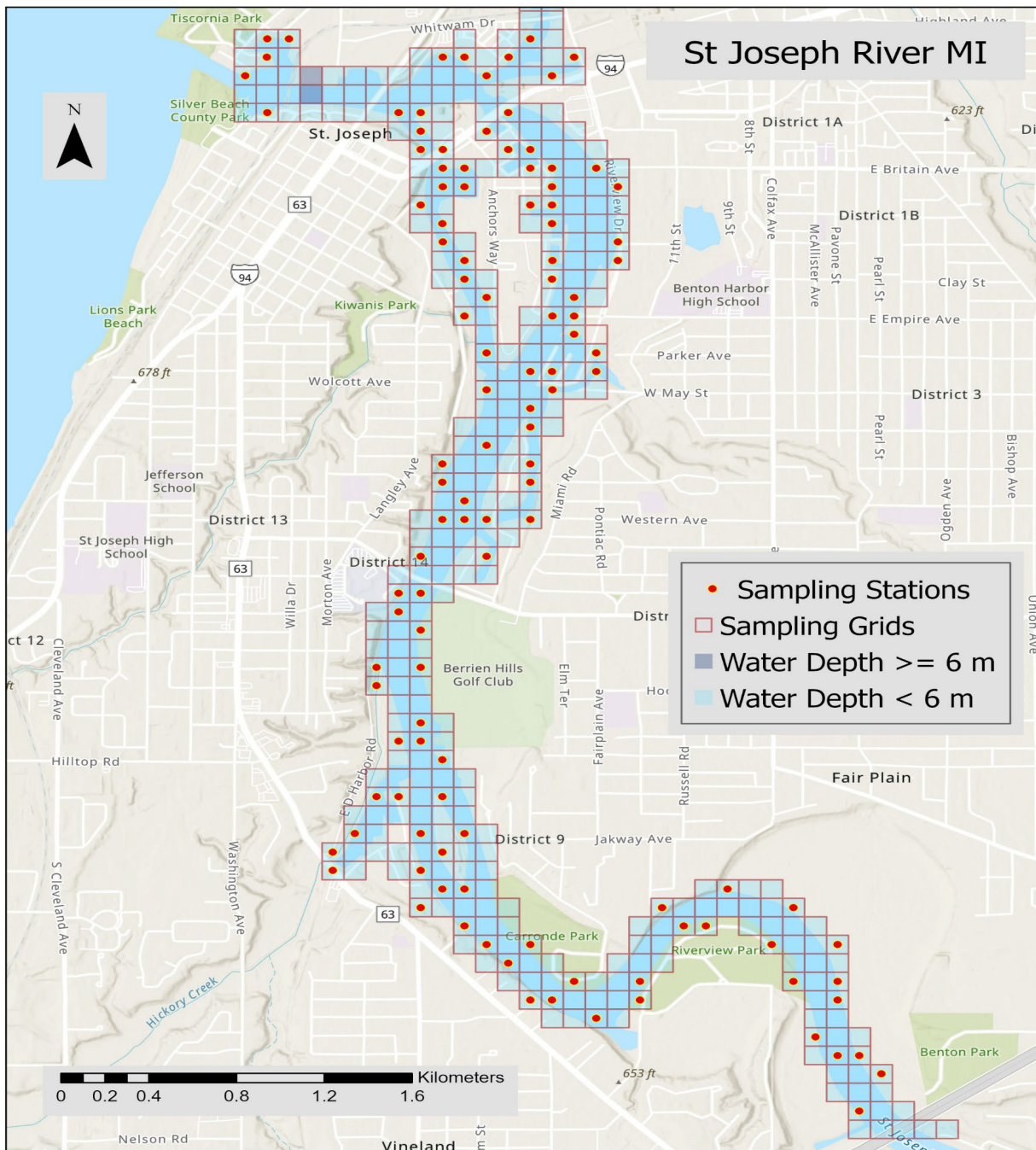
- Alisma* spp.
- Butomus umbellatus*
- Callitriche* spp.
- Carex* spp.
- Ceratophyllum demersum*
- Chara* spp.
- Elodea canadensis*
- Heteranthera dubia*
- Hydrocharis morsus-ranae*
- Lemna minor*
- Lemna trisulca*
- Myriophyllum sibiricum*
- Myriophyllum spicatum*
- Najas flexilis*
- Najas guadalupensis*
- Najas minor*
- Nitellopsis obtusa*
- Nuphar variegata*
- Nymphaea odorata*
- Potamogeton crispus*
- Potamogeton epihydrus*
- Potamogeton friesii*
- Potamogeton gramineus*
- Potamogeton illinoensis*
- Potamogeton pusillus*
- Potamogeton richardsonii*
- Potamogeton robbinsii*
- Narrow-leaf Potamogeton* spp.
- Potamogeton zosteriformis*
- Ranunculus aquatilis*
- Ranunculus longirostris*
- Sagittaria* spp.
- Sparganium* spp.
- Spirodela polyrhiza*
- Stukenia filiformis*
- Stukenia pectinata*
- Utricularia macrorhiza*
- Vallisneria americana*
- Wolffia* spp.

Lake St Clair MI (2024)



(2024)



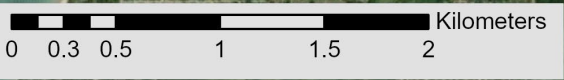


Species Richness

Depth Zone	Mean	Median	Range
<6m	3	3	0-14

- 25 different taxa were detected, including emergents
- 4 non-native species
- **No new incursions**


St Joseph River MI




<i>Cabomba caroliniana</i>
<i>Ceratophyllum demersum</i>
<i>Elodea canadensis</i>
<i>Elodea nutallii</i>
<i>Heteranthera dubia</i>
<i>Lemna minor</i>
<i>Myriophyllum spicatum</i>
<i>Nuphar advena</i>
<i>Nuphar variegata</i>
<i>Nymphaea odorata</i>
<i>Peltandra virginica</i>
<i>Phragmites australis ssp australis</i>
<i>Potamogeton crispus</i>
<i>Potamogeton nodosus</i>
Narrow-leaf <i>Potamogeton</i> spp.
<i>Potamogeton zosteriformis</i>
<i>Sagittaria latifolia</i>
<i>Sparganium</i> spp.
<i>Spirodela polyrhiza</i>
<i>Stuckenia filiformis</i>
<i>Stuckenia pectinata</i>
<i>Typha latifolia</i>
<i>Utricularia macrorhiza</i>
<i>Vallisneria americana</i>
<i>Wolffia</i> spp.


St Joseph River MI



 Sample Site

 *Myriophyllum spicatum* (Eurasian watermilfoil)

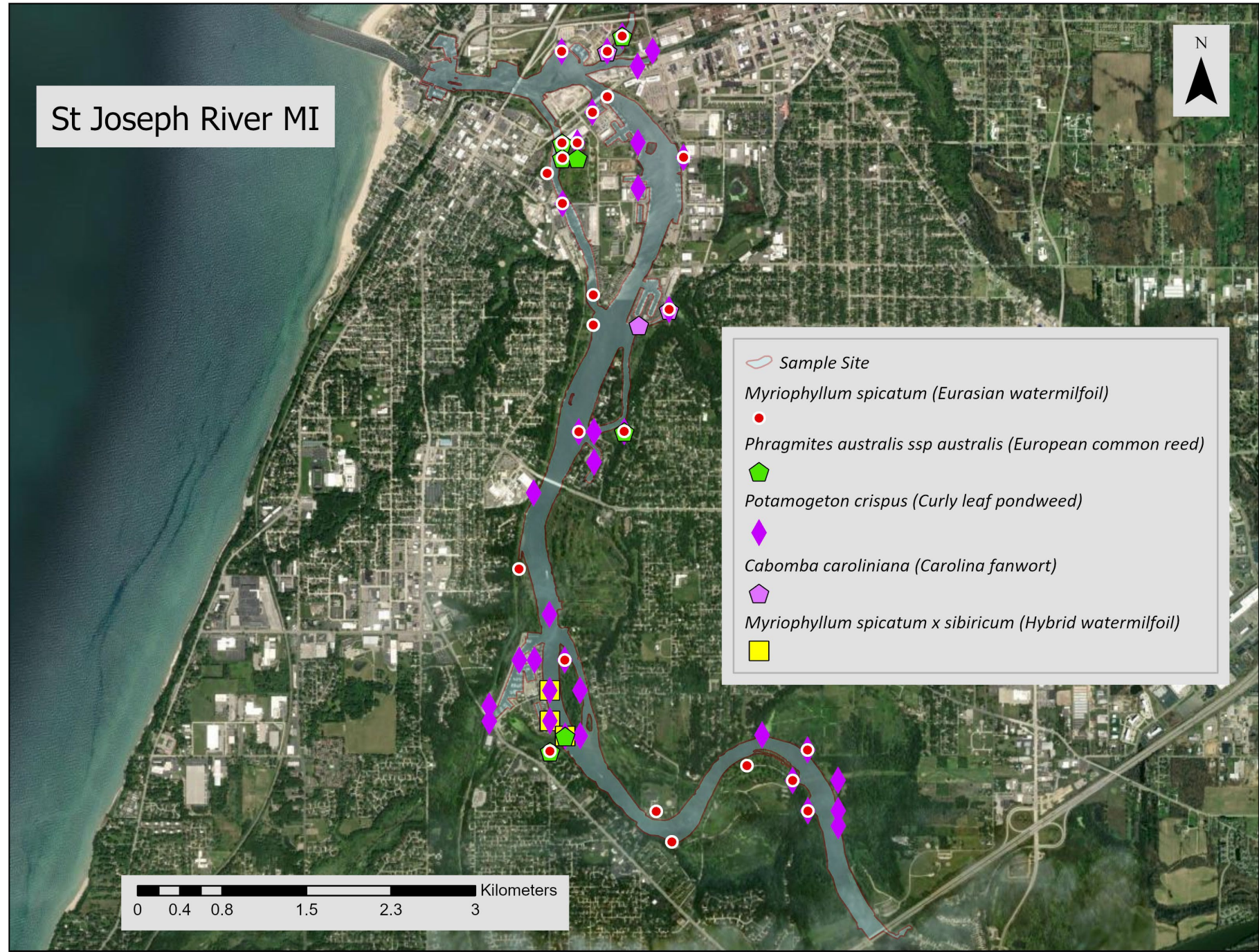
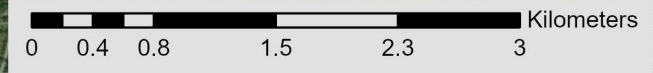
 *Phragmites australis ssp australis* (European common reed)

 *Potamogeton crispus* (Curly leaf pondweed)

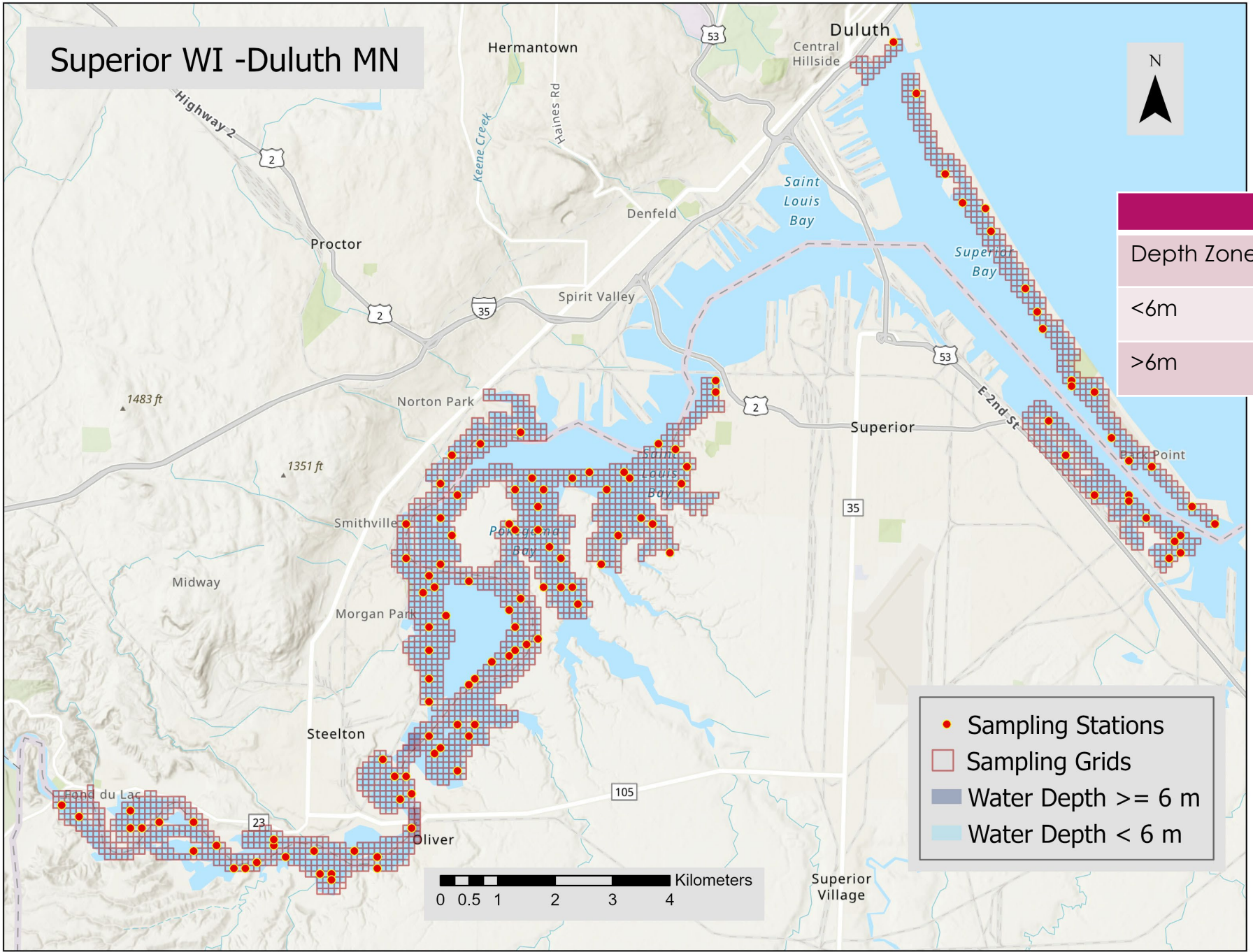
 *Cabomba caroliniana* (Carolina fanwort)

 *Myriophyllum spicatum x sibiricum* (Hybrid watermilfoil)





Superior WI -Duluth MN

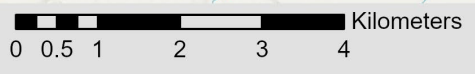


Species Richness

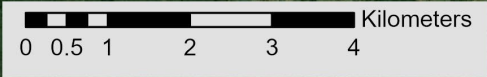
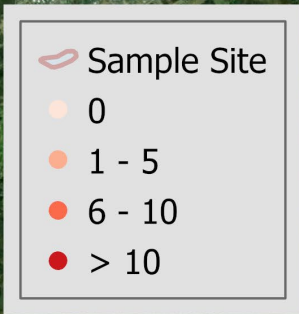
Depth Zone	Mean	Median	Range
<6m	6	5	0-12
>6m	0	0	0-1

- 33 different taxa were detected, including emergents
- 1 non-native species
- **No new incursions**

- Sampling Stations
- Sampling Grids
- Water Depth ≥ 6 m
- Water Depth < 6 m

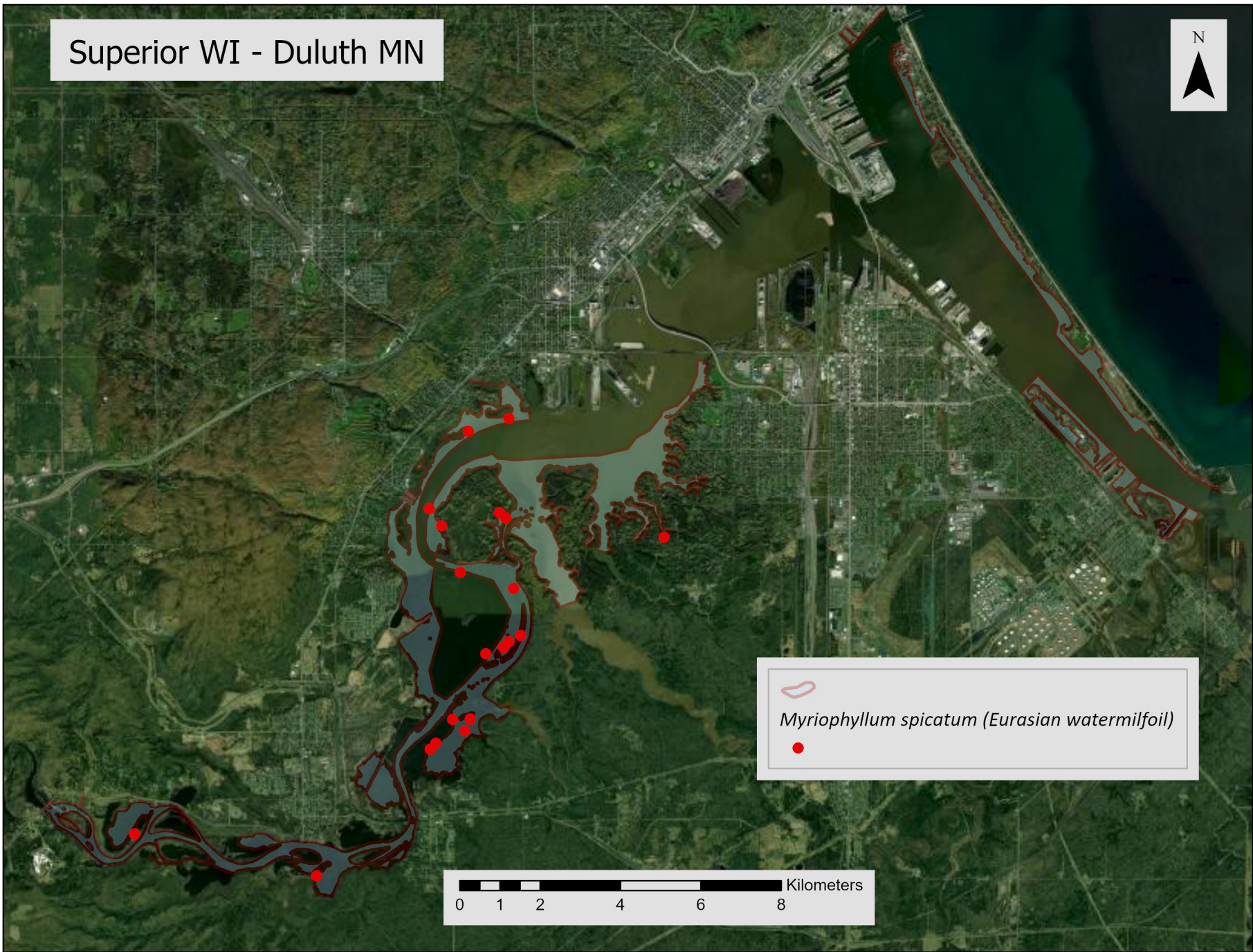



Superior WI - Duluth MN




- Bidens spp.
- Carex spp.
- Ceratophyllum demersum
- Chara spp.
- Elodea canadensis
- Heteranthera dubia
- Lemna trisulca
- Lemna turionifera
- Myriophyllum sibiricum
- Myriophyllum spicatum**
- Najas flexilis
- Nitella spp.
- Nuphar variegata
- Nymphaea odorata
- Phragmites australis ssp americanus
- Potamogeton epihydrus
- Potamogeton natans
- Potamogeton nodosus
- Potamogeton pusillus
- Potamogeton richardsonii
- Potamogeton zosteriformis
- Sagittaria spp.
- Schoenoplectus tabernaemontani
- Sparganium spp.
- Spirodela polyrhiza
- Stuckenia pectinata
- Typha spp.
- Nuphar X rubrodisca (Intermediate Pond-lily)
- Utricularia macrorhiza
- Vallisneria americana
- Zannichellia palustris
- Zizania spp.

Superior WI - Duluth MN

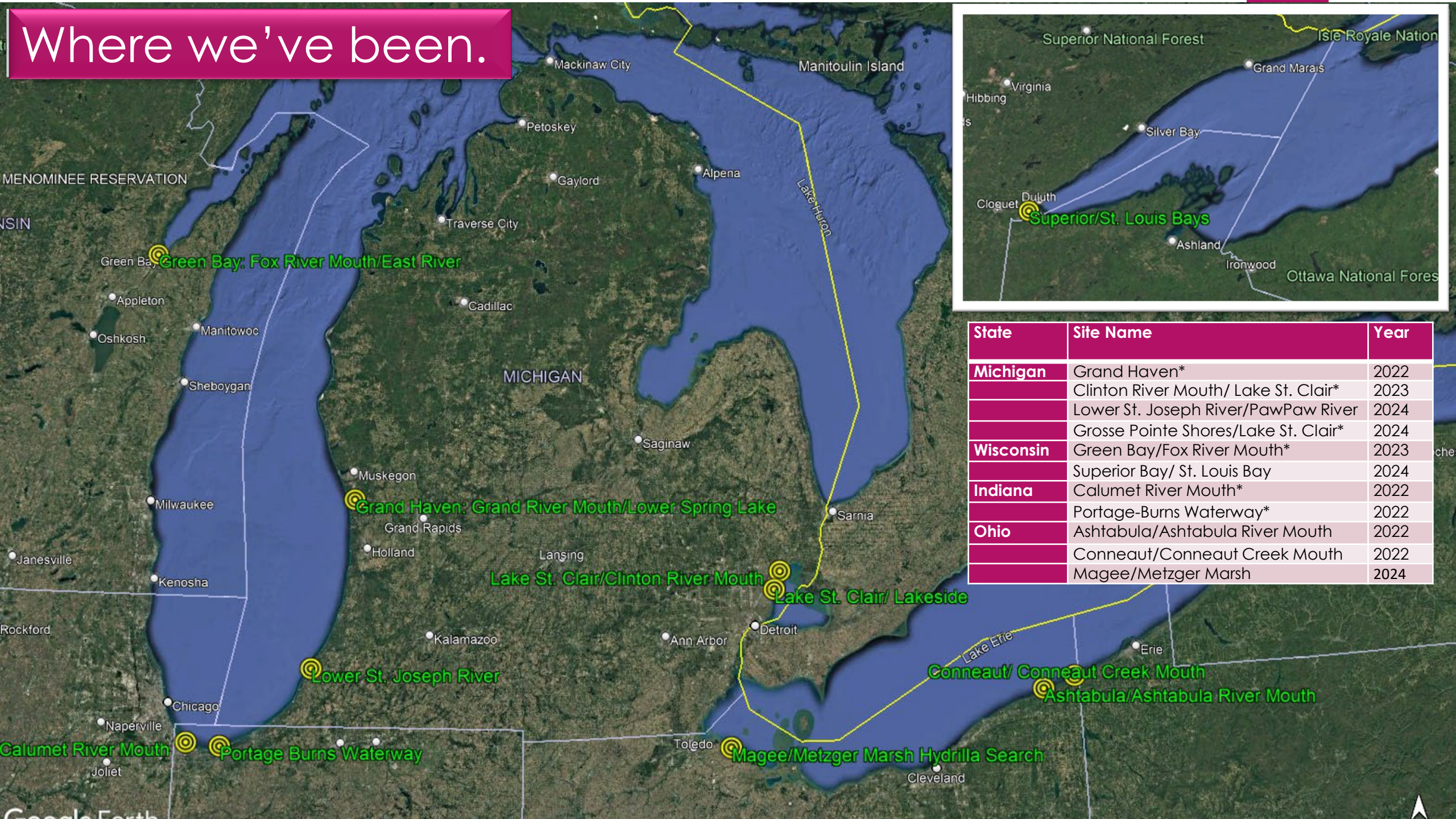


 *Myriophyllum spicatum* (Eurasian watermilfoil)



0 1 2 4 6 8 Kilometers

Where we've been.



State	Site Name	Year
Michigan	Grand Haven*	2022
	Clinton River Mouth/ Lake St. Clair*	2023
	Lower St. Joseph River/PawPaw River	2024
Wisconsin	Grosse Pointe Shores/Lake St. Clair*	2024
	Green Bay/Fox River Mouth*	2023
Indiana	Superior Bay/ St. Louis Bay	2024
	Calumet River Mouth*	2022
Ohio	Portage-Burns Waterway*	2022
	Ashtabula/Ashtabula River Mouth	2022
	Conneaut/Conneaut Creek Mouth	2022
	Magee/Metzger Marsh	2024

Preliminary 2025/2026 Site List

<u>State</u>	<u>Site</u>	<u>Year</u>
Michigan	Detroit River/Rouge River Mouth*	2025
Wisconsin	Sturgeon Bay	2026
Pennsylvania	Erie/Presque Isle*	2025
Ohio	Toledo/Maumee River Mouth*	2026
	West Harbor/Marblehead/Lake Erie*	2026
	Sandusky/Sandusky Bay*	2025
Illinois	Chicago/Chicago River Mouth*	2026

Where
do we
go?

- SURVEILLANCE PRIORITIES?