



Invasive Species Report 2022

Each SSEA Municipality was provided with an individual report. For the purposes of the SSEA website, the reports have been combined into one document.

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Invasive Species Report 2022

Township of Georgian Bay

Severn Sound watershed municipalities are leading the way on cross-municipal invasive species education and management. The Severn Sound Environmental Association (SSEA) works with the Township of Georgian Bay, seven other municipalities and local agencies to coordinate the monitoring and management of invasive species on a watershed scale. With support from the Township of Georgian Bay, monitoring of invasive species has been conducted on municipal properties by SSEA staff and supplemented by additional observations throughout the Township from community members.

In 2022, **31** invasive species of plants, fish, and invertebrates were identified within the Township of Georgian Bay with a total of **82** species to date. **7** species are further classified as priority invaders in **Table 1**. These species pose a threat to the ecosystems, economy and public health of community members and should be a focus for coordinated management activities and educational opportunities. Priority rankings can change as a result of invasiveness of non-native species, new species introductions, public interest and yearly invasive species monitoring results. A total of **119** invasive species have been documented in the watershed to date (**Table 2**).

Lesser Periwinkle

82

Invasive species identified in Georgian Bay

7

Priority invasive species

Table
01

Priority Invasive Species Detected Within the
Township of Georgian Bay



Species Group	Species Name
Aquatic Plants & Algae	Eurasian water-milfoil Starry stonewort
Terrestrial Plants	Glossy buckthorn Japanese knotweed
Wetland Plants	Phragmites
Invertebrates	Spongy moth (Ldd) Mystery Snails



Banded Mystery Snail found during SSEA aquatic invasive survey

Township of Georgian Bay Invasive Species Sightings Map

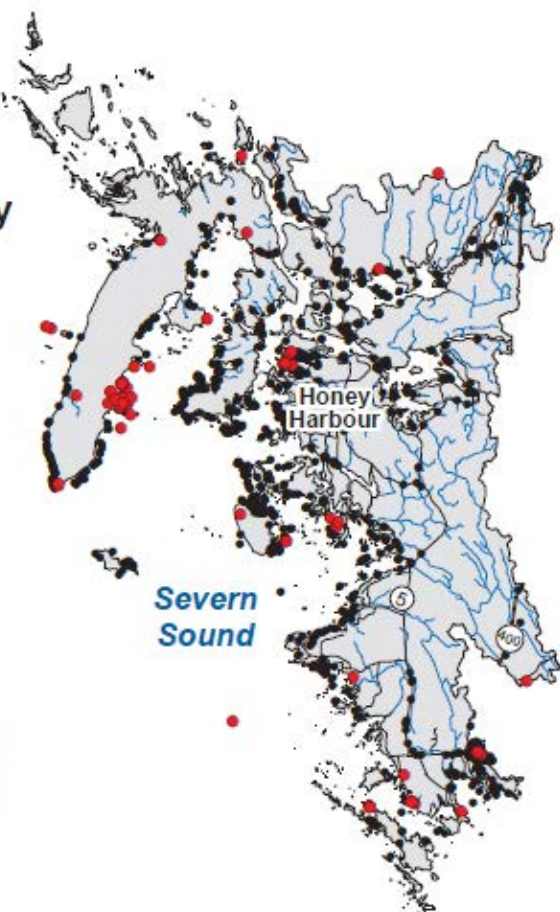
Legend

- Invasive Species
- 2022 Sighting
 - 2012 to 2021 Sighting
- Roads
- Lake
- Streams

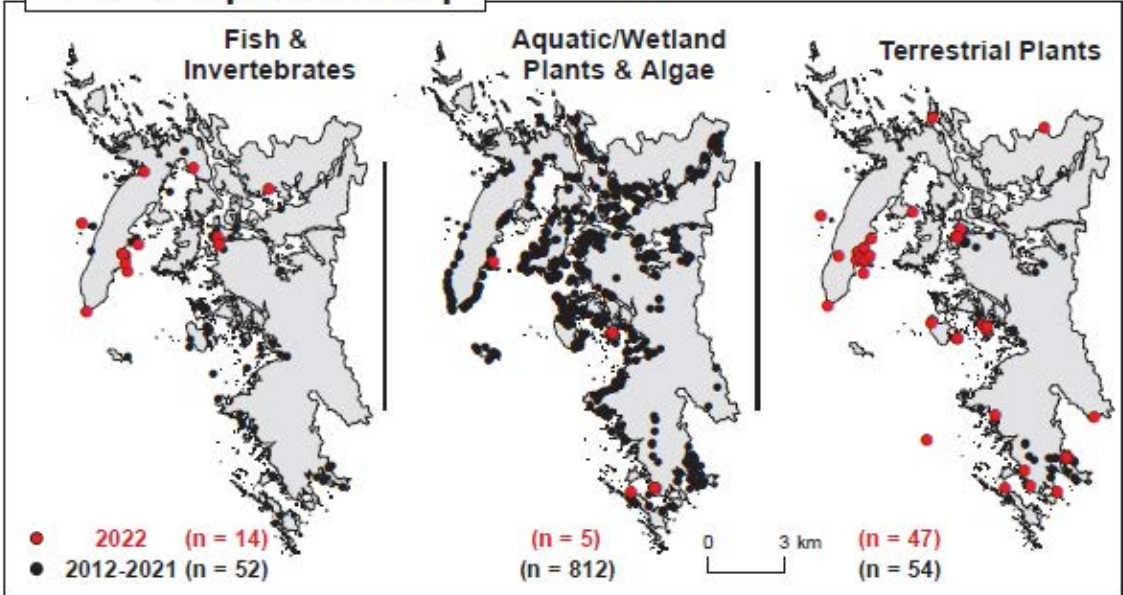
0 2 km



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Invasive Species Group



Vulnerable Areas & Summary

Municipalities are vulnerable to the economic and social impacts of priority invasive species such as those listed in **Table 1**. For the Township of Georgian Bay, high traffic areas including public boat launches, public parks and trail systems are examples of places that are at risk for invasive species introduction and establishment.

Three areas were surveyed by SSEA for invasive species in 2022 including Honey Harbour Landing, Paragon Marina, and Port Severn Park. These locations are susceptible to the introduction and movement of both aquatic and terrestrial invasive species.

In fall of 2022, SSEA surveyed selected forested locations across the Severn Sound area for the invasive forest pest, spongy moth. The surveys help to forecast potential defoliation for the upcoming season (2023). In areas surveyed, numbers of spongy moth egg masses were low, resulting in a nil to light potential defoliation forecast.



Japanese Knotweed



Invasive Honeysuckle



Black Locust

Recommendations

The SSEA proposes to lead the following priority actions with the Township of Georgian Bay in 2023, with accommodations for COVID-19 restrictions as necessary:

- Continue to monitor the spongy moth across the Severn Sound watershed and use data to help with future defoliation forecasting
- Support and coordinate community invasive species management events
- Continue monitoring for aquatic invasive plants and macroalgae such as starry stonewort along the Severn Sound portion of the Georgian Bay coastline
- Assist with communication about invasive species (e.g., giant hogweed, Japanese knotweed)
- Support partner organizations and groups in their work to manage invasive species, by providing technical expertise and assistance when possible, and collaborating to expand invasive species knowledge and management efforts across the watershed
- Promote engagement in Citizen Science initiatives to residents to increase invasive species awareness and reporting
- Provide invasive species workshops/educational opportunities for Township of Georgian Bay staff and residents

Invasive Species Report 2022

Town of Midland



Lily of the Valley, Little Lake Park

Severn Sound watershed municipalities are leading the way on cross-municipal invasive species education and management. The Severn Sound Environmental Association (SSEA) works with the Town of Midland, seven other municipalities and local agencies to coordinate the monitoring and management of invasive species on a watershed scale. With support from the Town of Midland, monitoring of invasive species has been conducted on municipal properties by SSEA staff and supplemented by additional observations throughout the Town from community members.

In 2022, **40** invasive species of plants, fish, and invertebrates were identified within the Town of Midland with a total of **94** species to date. **9** species are further classified as priority invaders in **Table 1**. These species pose a threat to the ecosystems, economy and public health of community members and should be a focus for coordinated management activities and educational opportunities. Priority rankings can change as a result of invasiveness of non-native species, new species introductions, public interest and yearly invasive species monitoring results. A total of **119** invasive species have been documented in the watershed to date (**Table 2**).

94

Invasive species identified in Midland

9

Priority invasive species

Table
01

Priority Invasive Species Detected Within the
Town of Midland



Species Group	Species Name
Aquatic Plants & Algae	Eurasian water-milfoil Starry stonewort Water Lettuce
Terrestrial Plants	Giant hogweed Glossy buckthorn Japanese knotweed
Wetland Plants	Phragmites
Invertebrates	Chinese mystery snail Spongy moth (Ldd)



Garlic Mustard covering forest floor

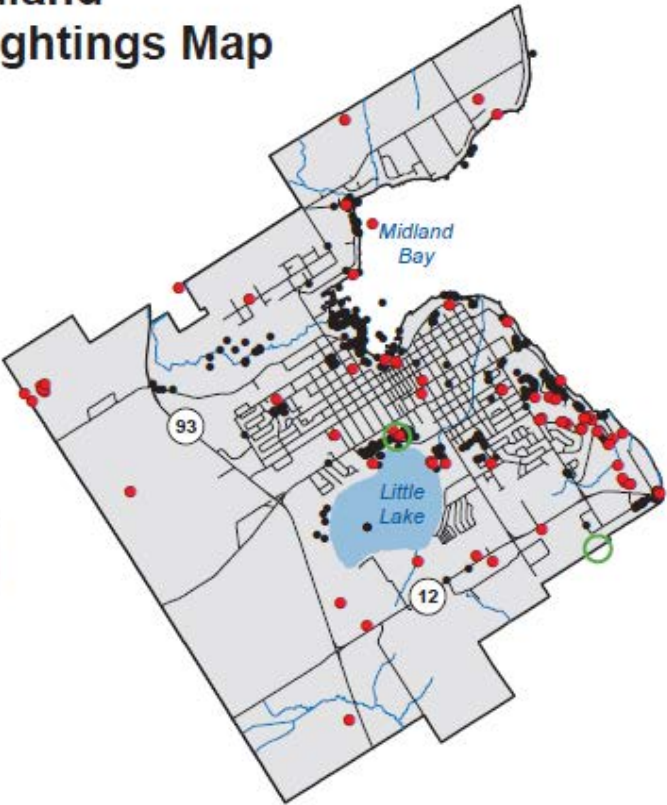
Town of Midland Invasive Species Sightings Map

Legend

- Invasive Species
- 2022 Sighting
 - 2006 to 2021 Sighting
 - 2022 Management Site
- Roads
- Lake
- Streams

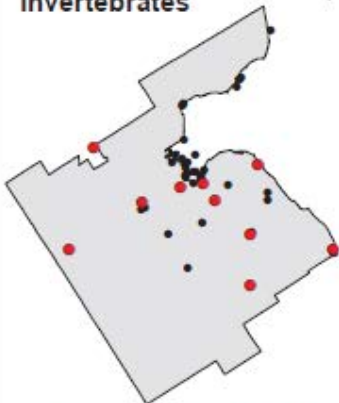


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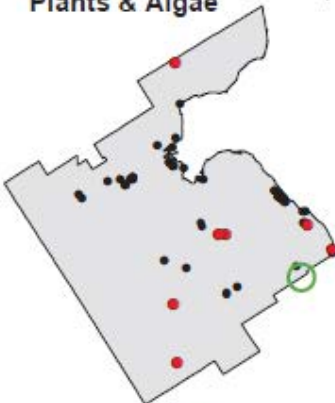
Invasive Species Group

Fish & Invertebrates



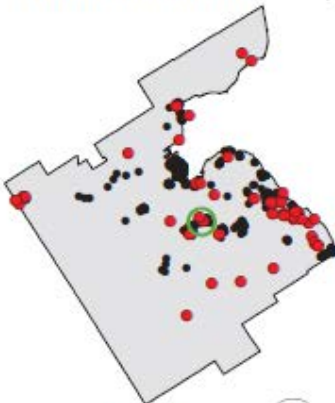
● 2022 (n = 10)
● 2006-2021 (n = 39)

Aquatic/Wetland Plants & Algae



(n = 7)
(n = 61)

Terrestrial Plants



(n = 53)
(n = 437)



Vulnerable Areas & Summary

Municipalities are vulnerable to the economic and social impacts of priority invasive species such as those listed in **Table 1**. For the Town of Midland, high traffic areas including public boat launches, public parks and trail systems are examples of places that are at risk for invasive species introduction and establishment.

SSEA hosted several invasive species management events to control numerous high priority invasive species in Little Lake Park. With the help of local students, volunteers, and Town of Midland staff, SSEA managed Lily of the Valley, Lesser Periwinkle, and Invasive Buckthorns towards the north end of Little Lake Park and Invasive Phragmites along the shoreline adjacent to the boat launch. Surveying and managing additional parks in Midland will be a priority moving forward.

In fall of 2022, SSEA surveyed selected forested locations across the Severn Sound area for the invasive forest pest, spongy moth. The surveys help to forecast potential defoliation for the upcoming season (2023). In areas surveyed, numbers of spongy moth egg masses were low, resulting in a nil to light potential defoliation forecast.



*Lesser Periwinkle removal at
Little Lake Park*



Lesser Periwinkle



Black Locust



*Yard waste dumped in
local park*

Recommendations

The SSEA proposes to lead the following priority actions with the Town of Midland in 2023, with accommodations for COVID-19 restrictions as necessary:

- Continue to monitor the spongy moth outbreak across the Severn Sound watershed and use data to help with future defoliation forecasting
- Continue to manage invasive species at public sites by hosting community removal events (e.g., designated Midland Bee City sites, stormwater management ponds)
- Complete surveillance for the invasive macroalgae starry stonewort in Little Lake
- Support partner organizations and groups in their work to manage invasive species, by providing technical expertise and assistance when possible, and collaborating to expand invasive species knowledge and management efforts across the watershed
- Promote engagement in Citizen Science initiatives to residents to increase invasive species awareness and reporting
- Provide invasive species workshops/educational opportunities for Town of Midland staff and residents

Invasive Species Report 2022

Township of Oro-Medonte



Lily of the Valley, Copeland Forest

Severn Sound watershed municipalities are leading the way on cross-municipal invasive species education and management. The Severn Sound Environmental Association (SSEA) works with the Township of Oro-Medonte, seven other municipalities and local agencies to coordinate the monitoring and management of invasive species on a watershed scale. With support from the Township of Oro-Medonte, monitoring of invasive species has been conducted on municipal properties by SSEA staff and supplemented by additional observations throughout the Township from community members.

In 2022, **29** invasive species of plants, fish, and invertebrates were identified within the Township of Oro-Medonte with a total of **87** species to date. **6** species are further classified as priority invaders in **Table 1**. These species pose a threat to the ecosystems, economy and public health of community members and should be a focus for coordinated management activities and educational opportunities. Priority rankings can change as a result of invasiveness of non-native species, new species introductions, public interest and yearly invasive species monitoring results. A total of **119** invasive species have been documented in the watershed to date (**Table 2**).

87

Invasive species identified in Oro-Medonte

6

Priority invasive species

Table
01

Priority Invasive Species Detected Within the
Township of Oro-Medonte



Species Group	Species Name
Aquatic Plants & Algae	European frog-bit
Terrestrial Plants	Garlic mustard Glossy buckthorn
Wetland Plants	Phragmites
Invertebrates	Mystery snails Spongy moth (Ldd)



Coltsfoot patch at Ramey Memorial Park

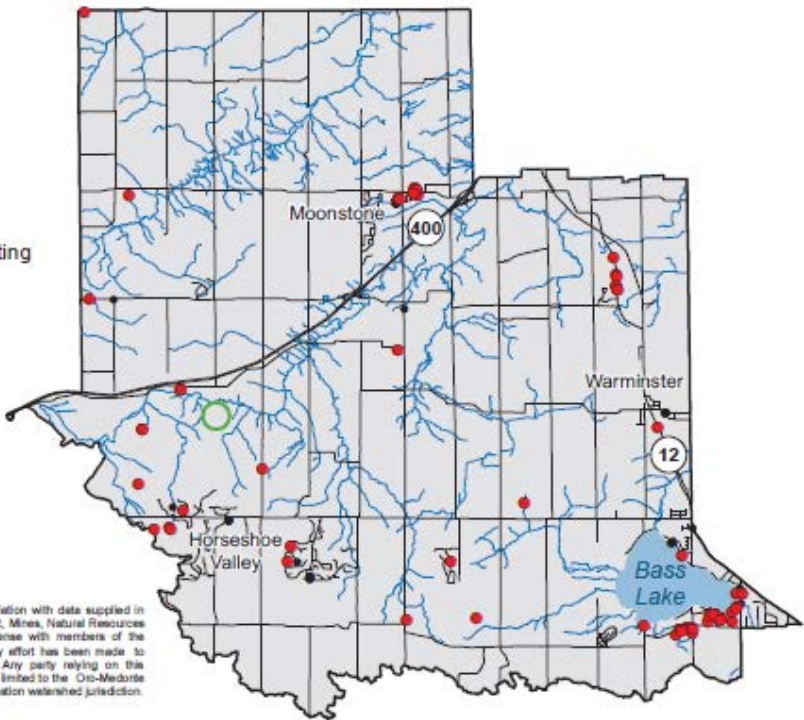
Township of Oro-Medonte Invasive Species Sightings Map

Legend

- Invasive Species
 - 2022 Sighting
 - 2017 to 2021 Sighting
- Roads
- Lake
- Streams



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Invasive Species Group

Fish & Invertebrates



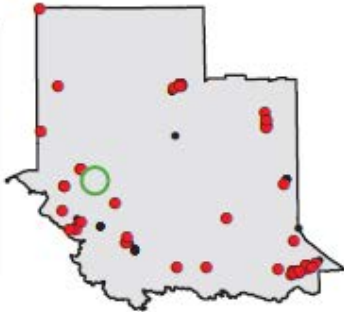
- 2022 (n = 11)
- 2017-2021 (n = 6)

Aquatic/Wetland Plants & Algae



- (n = 6)
- (n = 3)

Terrestrial Plants



- (n = 53)
- (n = 41)



Vulnerable Areas & Summary

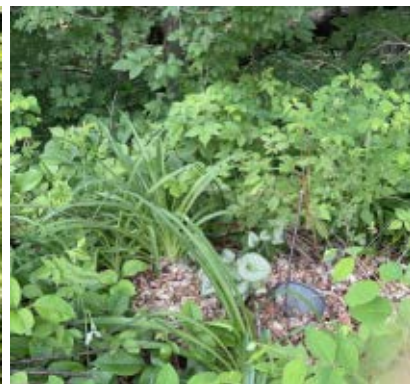
Municipalities are vulnerable to the economic and social impacts of priority invasive species such as those listed in **Table 1**. For the Township of Oro-Medonte, high traffic areas including Bass Lake, public parks and trail systems are examples of places that are at risk for invasive species introduction and establishment.

Four areas were surveyed by SSEA for invasive species in 2022 including Bass Lake shoreline (public access areas), Horseshoe Valley Memorial Park, Ramey Memorial Park, and Richelieu Park. These locations are susceptible to the introduction and movement of both aquatic and terrestrial invasive species.

In fall of 2022, SSEA surveyed selected forested locations across the Severn Sound area for the invasive forest pest, spongy moth. The surveys help to forecast potential defoliation for the upcoming season (2023). In areas surveyed, numbers of spongy moth egg masses were low, resulting in a nil to light potential defoliation forecast.



Bladder Campion at Ramey Memorial Park



Yard waste dumping at local park



Greater Burdock



Goutweed growing from yard waste dump site

Recommendations

The SSEA proposes to lead the following priority actions with the Township of Oro-Medonte in 2023, with accommodations for COVID-19 restrictions as necessary:

- Continue to monitor the spongy moth outbreak across the Severn Sound watershed and use data to help with future defoliation forecasting
- Support and coordinate community invasive species management events
- Support partner organizations and groups in their work to manage invasive species, by providing technical expertise and assistance when possible, and collaborating to expand invasive species knowledge and management efforts across the watershed
- Promote engagement in Citizen Science initiatives to residents to increase invasive species awareness and reporting
- Provide invasive species workshops/educational opportunities for Township of Oro-Medonte staff and residents

Invasive Species Report 2022

Town of Penetanguishene



Phragmites, Rotary Champlain Wendat Park

Severn Sound watershed municipalities are leading the way on cross-municipal invasive species education and management. The Severn Sound Environmental Association (SSEA) works with the Town of Penetanguishene, seven other municipalities and local agencies to coordinate the monitoring and management of invasive species on a watershed scale. With support from the Town of Penetanguishene, monitoring of invasive species has been conducted on municipal properties by SSEA staff and supplemented by additional observations throughout the Town from community members.

In 2022, **18** invasive species of plants, fish, and invertebrates were identified within the Town of Penetanguishene with a total of **63** species to date. **7** species are further classified as priority invaders in **Table 1**. These species pose a threat to the ecosystems, economy and public health of community members and should be a focus for coordinated management activities and educational opportunities. Priority rankings can change as a result of invasiveness of non-native species, new species introductions, public interest and yearly invasive species monitoring results. A total of **119** invasive species have been documented in the watershed to date (**Table 2**).

63

Invasive species identified in Penetanguishene

7

Priority invasive species

Table
01

Priority Invasive Species Detected Within the
Town of Penetanguishene

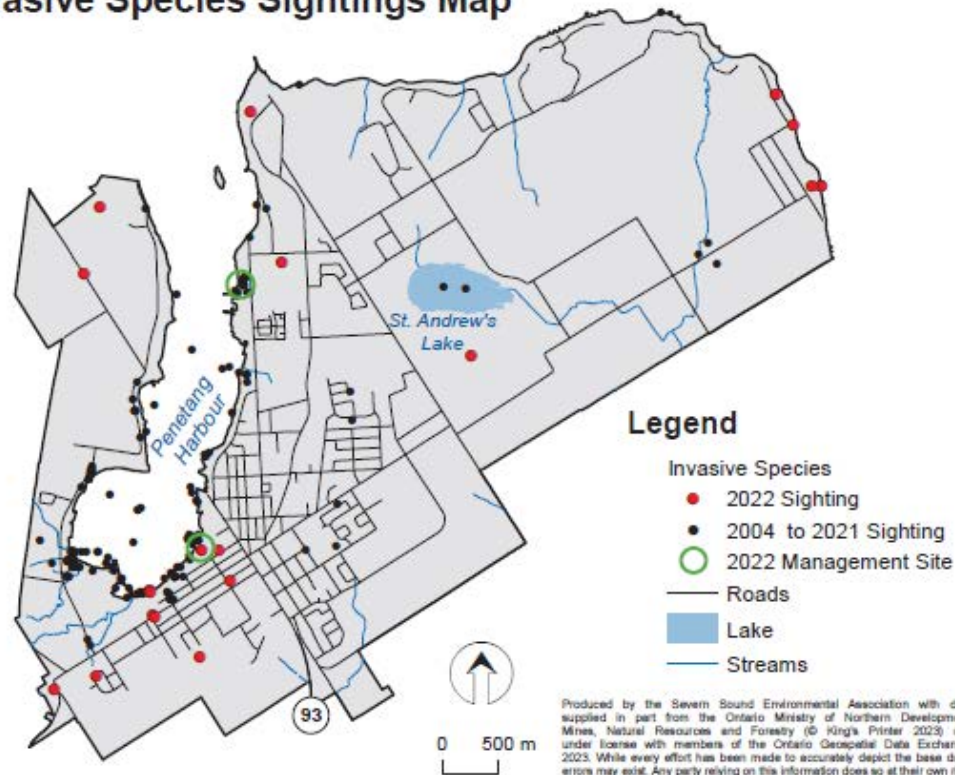


Species Group	Species Name
Aquatic Plants & Algae	Eurasian water-milfoil Starry stonewort
Terrestrial Plants	Glossy buckthorn Spotted knapweed
Wetland Plants	Phragmites
Invertebrates	Spongy moth (Ldd) Zebra mussels

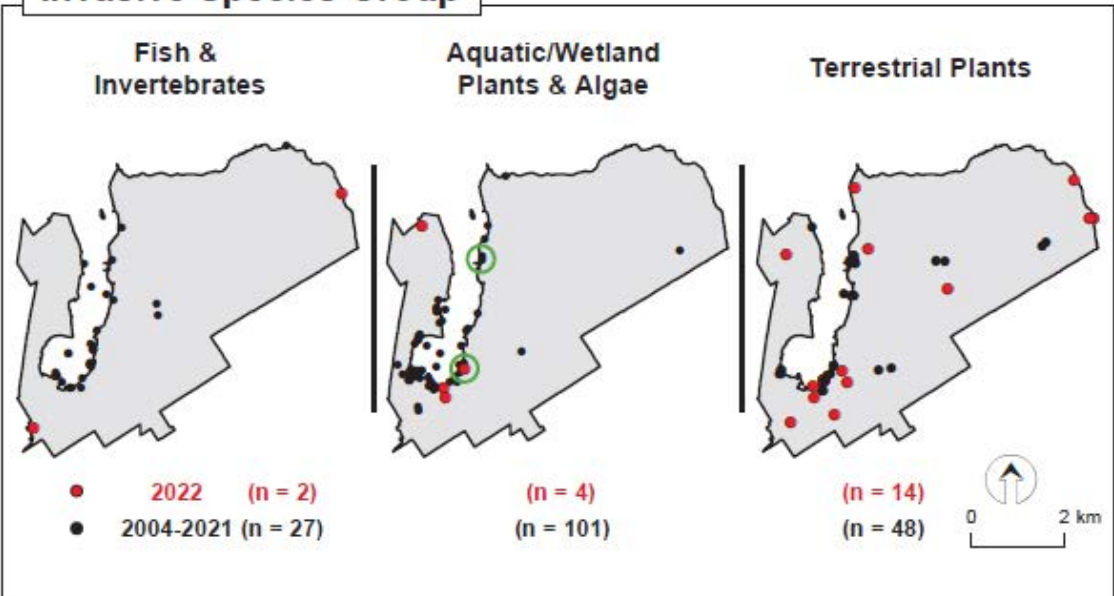


Garlic Mustard in first growing year

Town of Penetanguishene Invasive Species Sightings Map



Invasive Species Group



Vulnerable Areas & Summary

Municipalities are vulnerable to the economic and social impacts of priority invasive species such as those listed in **Table 1**. For the Town of Penetanguishene, high traffic areas including public parks, public boat launches and marinas and trail systems are examples of places that are at risk for invasive species introduction and establishment.

SSEA and the Town of Penetanguishene continued community management of Phragmites at Rotary Champlain Wendat Park to help preserve its ecological and recreational value. Two sites that were managed for the second year in a row. Phragmites was entirely removed at the pond and ditch sites. Continued management will be required for long-term management success. Provided training to municipal roads staff on invasive species detection and management techniques.

In fall of 2022, SSEA surveyed selected forested locations across the Severn Sound area for the invasive forest pest, spongy moth. The surveys help to forecast potential defoliation for the upcoming season (2023). In areas surveyed, numbers of spongy moth egg masses were low, resulting in a nil to light potential defoliation forecast.



Invasive Phragmites



Manitoba Maple



Glossy Buckthorn



Crown Vetch at Ecology Garden

Recommendations

The SSEA proposes to lead the following priority actions with the Town of Penetanguishene in 2023, with accommodations for COVID-19 restrictions as necessary:

- Continue to monitor the spongy moth outbreak across the Severn Sound watershed and use data to help with future defoliation forecasting
- Continue to manage Phragmites in Rotary Champlain Wendat Park by hosting community removal events, and purchase and plant native local appropriate species as funding permits.
- Continue monitoring for the invasive macroalgae starry stonewort along the Penetanguishene coastline
- Support partner organizations and groups in their work to manage invasive species, by providing technical expertise and assistance when possible, and collaborating to expand invasive species knowledge and management efforts across the watershed
- Promote engagement in Citizen Science initiatives to residents to increase invasive species awareness and reporting
- Provide invasive species workshops/educational opportunities for Town of Penetanguishene staff and residents

Invasive Species Report 2022

Township of Severn



Giant Hogweed, Uthoff Trail

Severn Sound watershed municipalities are leading the way on cross-municipal invasive species education and management. The Severn Sound Environmental Association (SSEA) works with the Township of Severn, seven other municipalities and local agencies to coordinate the monitoring and management of invasive species on a watershed scale. With support from the Township of Severn, monitoring of invasive species has been conducted on municipal properties by SSEA staff and supplemented by additional observations throughout the Township from community members.

In 2022, **31** invasive species of plants, fish, and invertebrates were identified within the Township of Severn with a total of **88** species to date. **8** species are further classified as priority invaders in **Table 1**. These species pose a threat to the ecosystems, economy and public health of community members and should be a focus for coordinated management activities and educational opportunities. Priority rankings can change as a result of invasiveness of non-native species, new species introductions, public interest and yearly invasive species monitoring results. A total of **119** invasive species have been documented in the watershed to date (**Table 2**).

88

Invasive species identified in Severn

8

Priority invasive species

Table
01

Priority Invasive Species Detected Within the Township of Severn

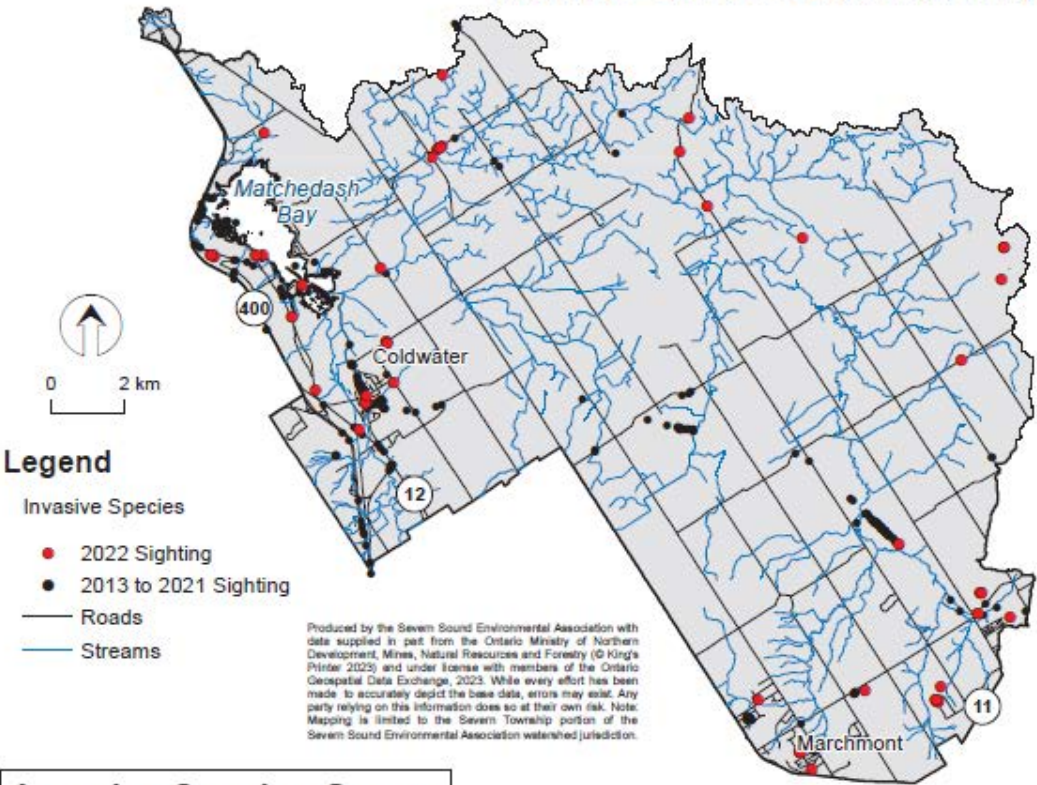


Species Group	Species Name
Terrestrial Plants	Dog-strangling vine Garlic mustard Giant hogweed Glossy buckthorn Japanese knotweed
Wetland Plants	Phragmites
Invertebrates	Chinese mystery snails Spongy moth (Ldd)

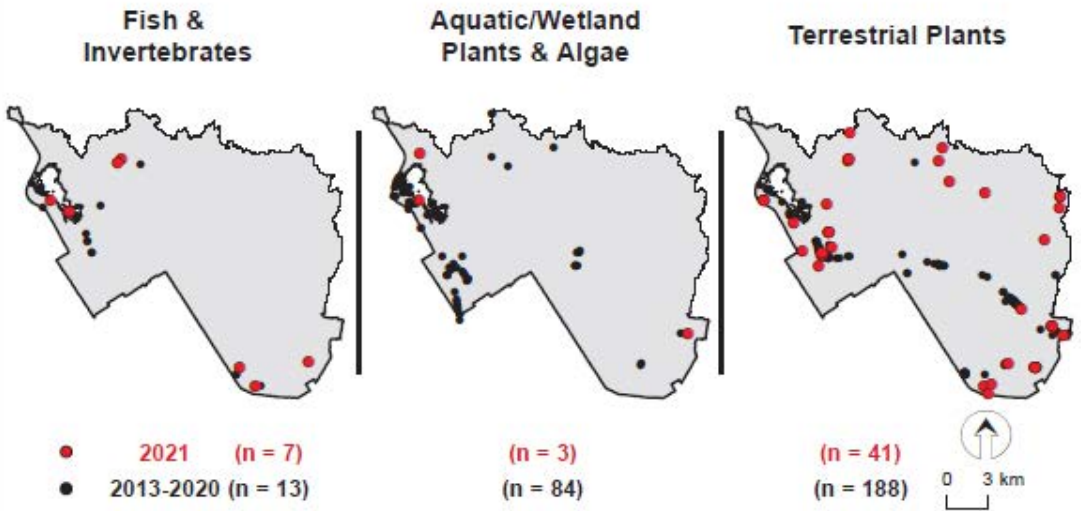


Giant hogweed along the Uhthoff trail

Township of Severn Invasive Species Sightings Map



Invasive Species Group



Vulnerable Areas & Summary

Municipalities are vulnerable to the economic and social impacts of priority invasive species such as those listed in **Table 1**. For the Township of Severn, high traffic areas including public parks and road and trail systems are examples of places that are at risk for invasive species introduction and establishment.

SSEA continued assist Township of Severn staff with giant hogweed identification and management through private contractors. The preferred management technique has been foliar herbicide application to target giant hogweed infestations along the Uthoff trail. As an extremely noxious species, SSEA will continue to prioritize hogweed management throughout the township with the goal of eradication.

In fall of 2022, SSEA surveyed selected forested locations across the Severn Sound area for the invasive forest pest, spongy moth. The surveys help to forecast potential defoliation for the upcoming season (2023). In areas surveyed, numbers of spongy moth egg masses were low, resulting in a nil to light potential defoliation forecast.



Giant hogweed leaf



Black locust tree found while monitoring



Spotted Knapweed



Scots Pine

Recommendations

The SSEA proposes to lead the following priority actions with the Township of Severn in 2023, with accommodations for COVID-19 restrictions as necessary:

- Assist with giant hogweed and other invasive/noxious weed identification along roadsides, public properties, and trail systems. Support Severn in their hogweed management programs through technical support and staff training
- Support and coordinate community invasive species management events
- Support partner organizations and groups in their work to manage invasive species, by providing technical expertise and assistance when possible, and collaborating to expand invasive species knowledge and management efforts across the watershed
- Promote engagement in Citizen Science initiatives to residents to increase invasive species awareness and reporting
- Provide invasive species workshops/educational opportunities for Township of Severn staff and residents

Invasive Species Report 2022

Township of Springwater



Zebra Mussels, Orr Lake

Severn Sound watershed municipalities are leading the way on cross-municipal invasive species education and management. The Severn Sound Environmental Association (SSEA) works with the Township of Springwater, seven other municipalities and local agencies to coordinate the monitoring and management of invasive species on a watershed scale. With support from the Township of Springwater, monitoring of invasive species has been conducted on municipal properties by SSEA staff and supplemented by additional observations throughout the Township from community members.

In 2022, **39** invasive species of plants, fish and invertebrates were identified within the Township of Springwater, with a total of **88** species to date. **8** species are further classified as priority invaders in **Table 1**. These species pose a threat to the ecosystems, economy and public health of community members and should be a focus for coordinated management activities and educational opportunities. Priority rankings can change as a result of invasiveness of non-native species, new species introductions, public interest and yearly invasive species monitoring results. A total of **119** invasive species have been documented in the watershed to date (**Table 2**).

88

Invasive species identified in Springwater

8

Priority invasive species

Table
01

Priority Invasive Species Detected Within the
Township of Springwater

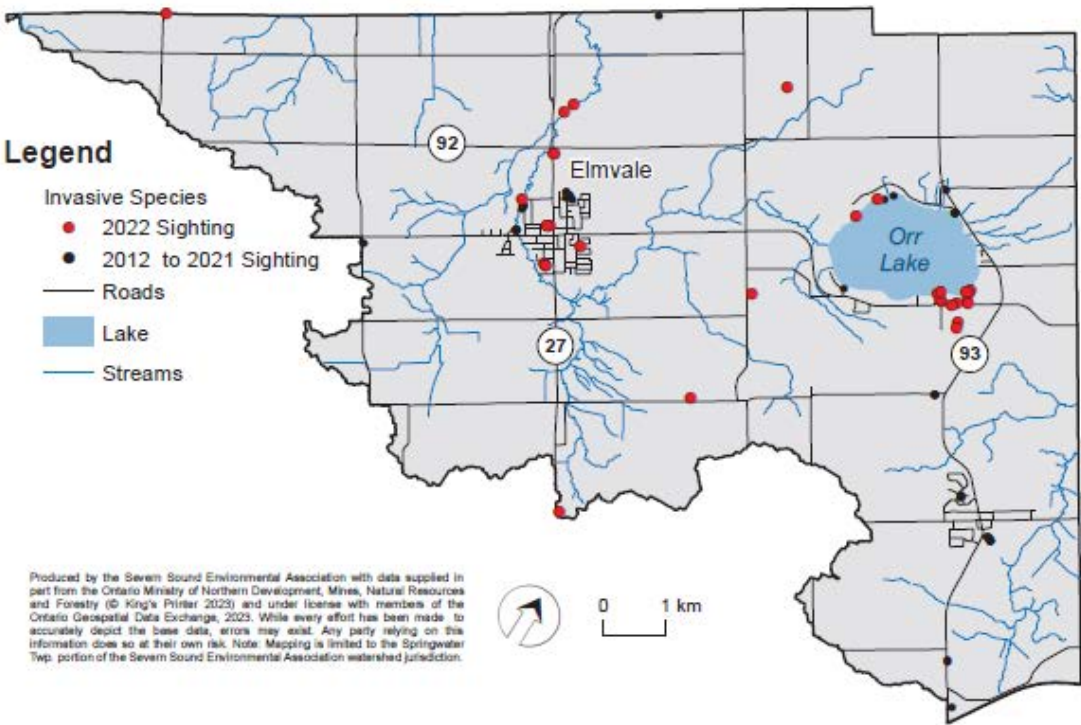


Species Group	Species Name
Aquatic Plants & Algae	Eurasian water-milfoil
Terrestrial Plants	Dog-strangling vine Glossy buckthorn Japanese knotweed
Wetland Plants	Phragmites
Invertebrates	Chinese mystery snails Spongy moth (Ldd) Zebra & quagga mussels

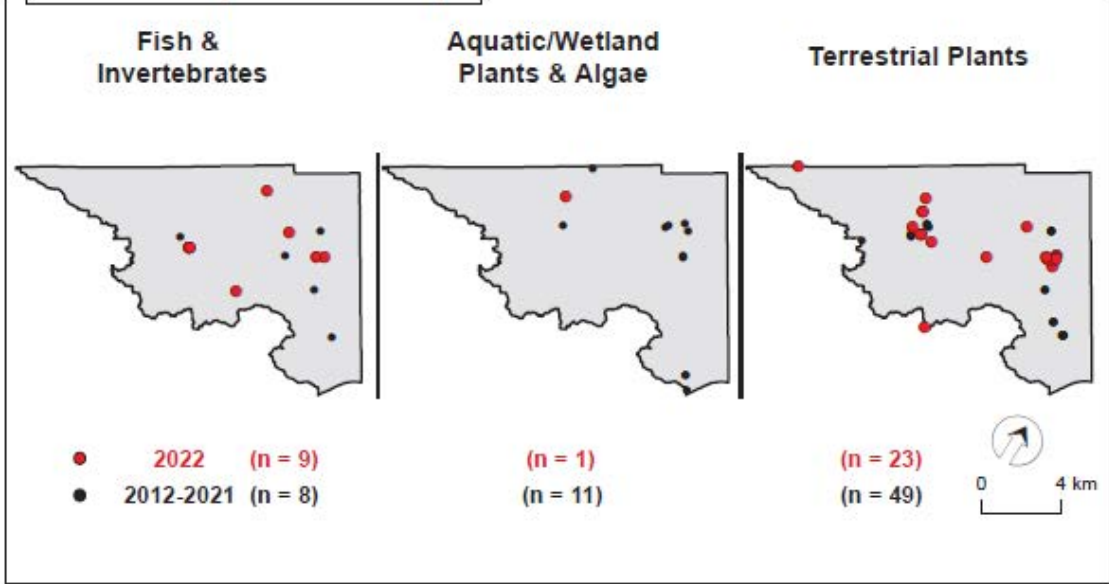


Lesser Periwinkle at Orr Lake Park

Township of Springwater Invasive Species Sightings Map



Invasive Species Group



Vulnerable Areas & Summary

Municipalities are vulnerable to the economic and social impacts of priority invasive species such as those listed in **Table 1**. For the Township of Springwater, high traffic areas including public boat launches, public parks and trail systems are examples of places that are at risk for invasive species introduction and establishment.

Seven public areas were surveyed by SSEA for invasive species in 2022 including Bishop Park, Elmvale Heritage Park, Graham Macdonald Park, Hillsdale Community Park, Homer Barret Park, Robinson Park, and Orr Lake Park. These locations are susceptible to the introduction and movement of both aquatic and terrestrial invasive species. In addition to terrestrial sites, SSEA completed a targeted survey for zebra mussels in Orr Lake, and confirmed that zebra mussels are established in the lake.

In fall of 2022, SSEA surveyed selected forested locations across the Severn Sound area for the invasive forest pest, spongy moth. The surveys help to forecast potential defoliation for the upcoming season (2023). In areas surveyed, numbers of spongy moth egg masses were low, resulting in a nil to light potential defoliation forecast.



Field Bindweed



Chinese Mystery Snail, Orr Lake Park



Bittersweet Nightshade



Common Buckthorn

Recommendations

The SSEA proposes to lead the following priority actions with the Township of Springwater in 2023, with accommodations for COVID-19 restrictions as necessary:

- Continue to monitor the spongy moth outbreak across the Severn Sound watershed and use data to help with future defoliation forecasting
- Support and coordinate community invasive species management events
- Support partner organizations and groups in their work to manage invasive species, by providing technical expertise and assistance when possible, and collaborating to expand invasive species knowledge and management efforts across the watershed
- Promote engagement in Citizen Science initiatives to residents to increase invasive species awareness and reporting
- Provide invasive species workshops/educational opportunities for Township of Springwater staff and residents

Invasive Species Report 2022

Township of Tay

Severn Sound watershed municipalities are leading the way on cross-municipal invasive species education and management. The Severn Sound Environmental Association (SSEA) works with the Township of Tay, seven other municipalities and local agencies to coordinate the monitoring and management of invasive species on a watershed scale. With support from the Township of Tay, monitoring of invasive species has been conducted on municipal properties by SSEA staff and supplemented by additional observations throughout the Township from community members.

In 2022, **37** invasive species of plants, fish, and invertebrates were identified within the Township of Tay with a total of **83** species to date. **7** species are further classified as priority invaders in **Table 1**. These species pose a threat to the ecosystems, economy and public health of community members and should be a focus for coordinated management activities and educational opportunities. Priority rankings can change as a result of invasiveness of non-native species, new species introductions, public interest and yearly invasive species monitoring results. A total of **119** invasive species have been documented in the watershed to date (**Table 2**).

Glossy Buckthorn, Mackenzie Beach

83

Invasive species identified

7

Priority invasive species

Table
01

Priority Invasive Species Detected Within the
Township of Tay

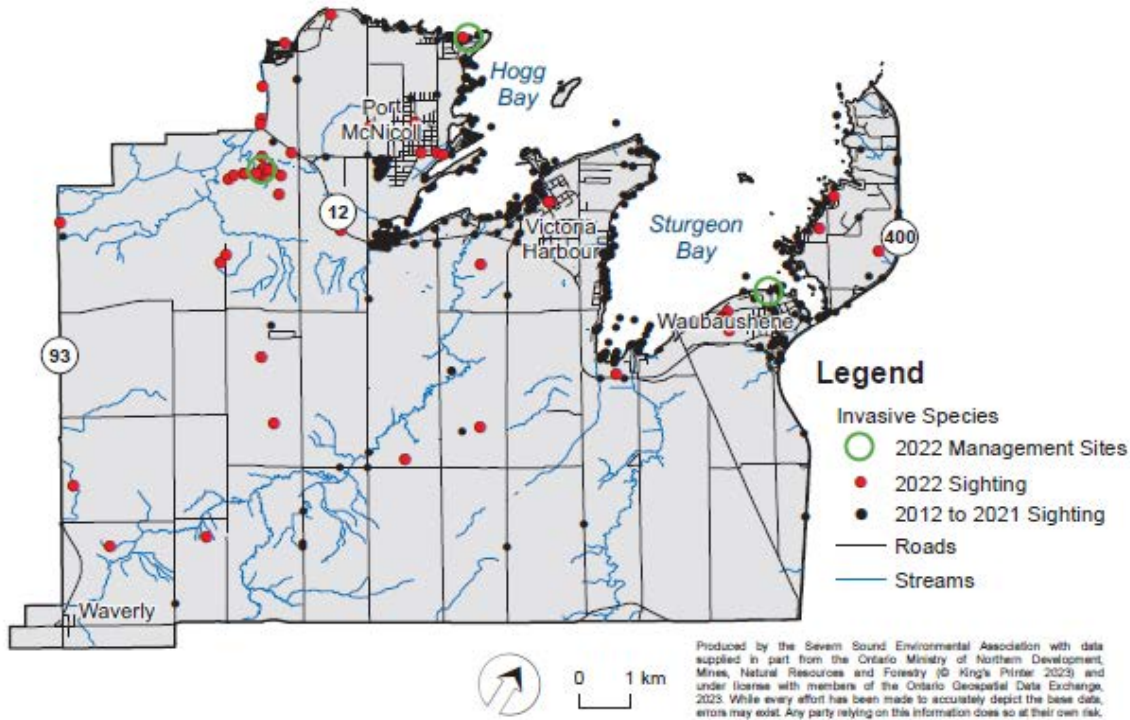


Species Group	Species Name
Aquatic Plants & Algae	Eurasian water-milfoil
Terrestrial Plants	Dog-strangling vine Glossy buckthorn Himalayan balsam Japanese knotweed
Wetland Plants	Phragmites
Invertebrates	Zebra & quagga mussels

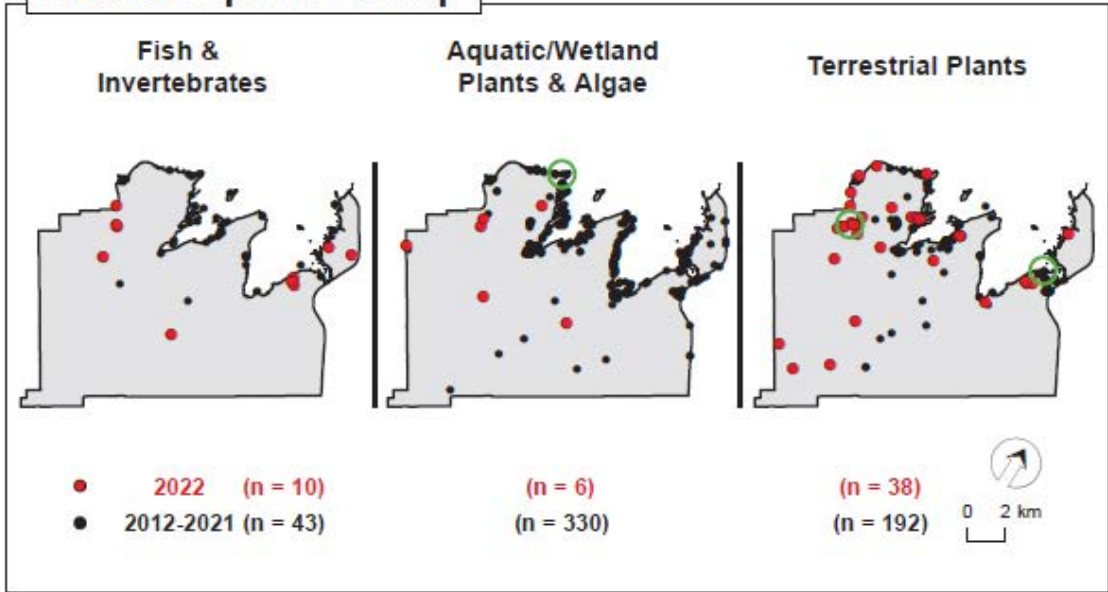


Invasive Phragmites at Patterson Park

Township of Tay Invasive Species Sightings Map



Invasive Species Group



Vulnerable Areas & Summary

Municipalities are vulnerable to the economic and social impacts of priority invasive species such as those listed in **Table 1**. For the Township of Tay, high traffic areas including public or shared beach areas, public parks and trail systems are examples of places that may be at greater risk for invasive species introduction and establishment.

Seven areas were surveyed by SSEA for invasive species in 2022 including Calvert Park, Eplett Park, Magnus Beach, McKenzie Beach, Patterson Park, Talbot Park and the Waubauskene Town Dock. These locations are susceptible to the introduction and movement of both aquatic and terrestrial invasive species. With community support, SSEA coordinated invasive species management activities at four locations including Waubauskene Beach, Patterson Park, Tay Shore Trail, and Wye Marsh.

In fall of 2022, SSEA surveyed selected forested locations across the Severn Sound area for the invasive forest pest, spongy moth. The surveys help to forecast potential defoliation for the upcoming season (2023). In areas surveyed, numbers of spongy moth egg masses were low, resulting in a nil to light potential defoliation forecast.



*Himalayan Balsam patch at
Waubauskene Beach Park*



Coltsfoot on Tay Shore Trail



*White Sweet Clover at
Patterson Park*

Recommendations

The SSEA proposes to lead the following priority actions with the Township of Tay in 2023, with accommodations for COVID-19 restrictions as necessary:

- Continue to monitor the spongy moth outbreak across the Severn Sound watershed and use data to help with future defoliation forecasting
- Support the Township in managing invasive species along the Tay trail (e.g., dog-strangling vine, Japanese knotweed, wild parsnip)
- Support partner organizations and groups in their work to manage invasive species, by providing technical expertise and assistance when possible, and collaborating to expand invasive species knowledge and management efforts across the watershed
- Promote engagement in Citizen Science initiatives to residents to increase invasive species awareness and reporting
- Provide invasive species workshops/educational opportunities for Township of Tay staff and residents
- Support and coordinate community invasive species management events

Invasive Species Report 2022

Township of Tiny



Yellow Iris, Lafontaine Beach

Severn Sound watershed municipalities are leading the way on cross-municipal invasive species education and management. The Severn Sound Environmental Association (SSEA) works with the Township of Tiny, seven other municipalities and local agencies to coordinate the monitoring and management of invasive species on a watershed scale. With support from the Township of Tiny, monitoring of invasive species has been conducted on municipal properties by SSEA staff and supplemented by additional observations throughout the Township from community members.

In 2022, **61** invasive species of plants, fish, and invertebrates were identified within the Township of Tiny with a total of **95** species to date. **6** species are further classified as priority invaders in **Table 1**. These species pose a threat to the ecosystems, economy and public health of community members and should be a focus for coordinated management activities and educational opportunities. Priority rankings can change as a result of invasiveness of non-native species, new species introductions, public interest and yearly invasive species monitoring results. A total of **119** invasive species have been documented in the watershed to date (**Table 2**).

95

Invasive species identified in Tiny

6

Priority invasive species

Table
01

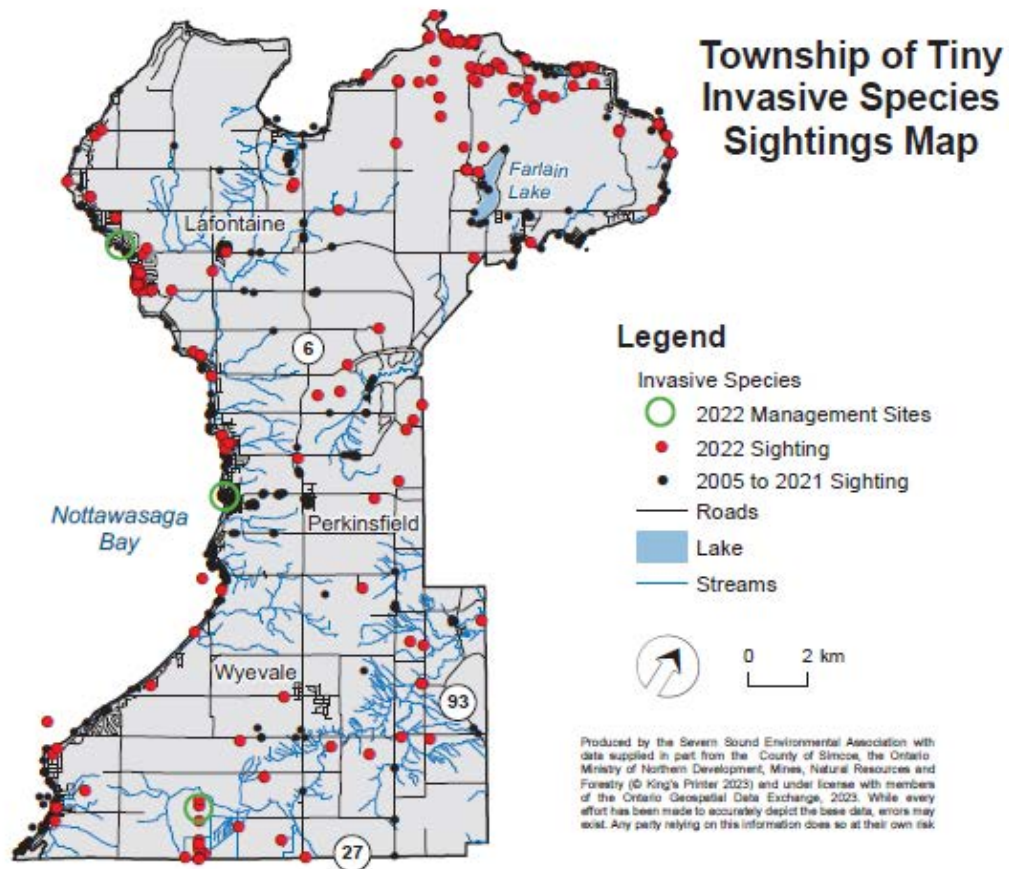
Priority Invasive Species Detected Within the Township of Tiny



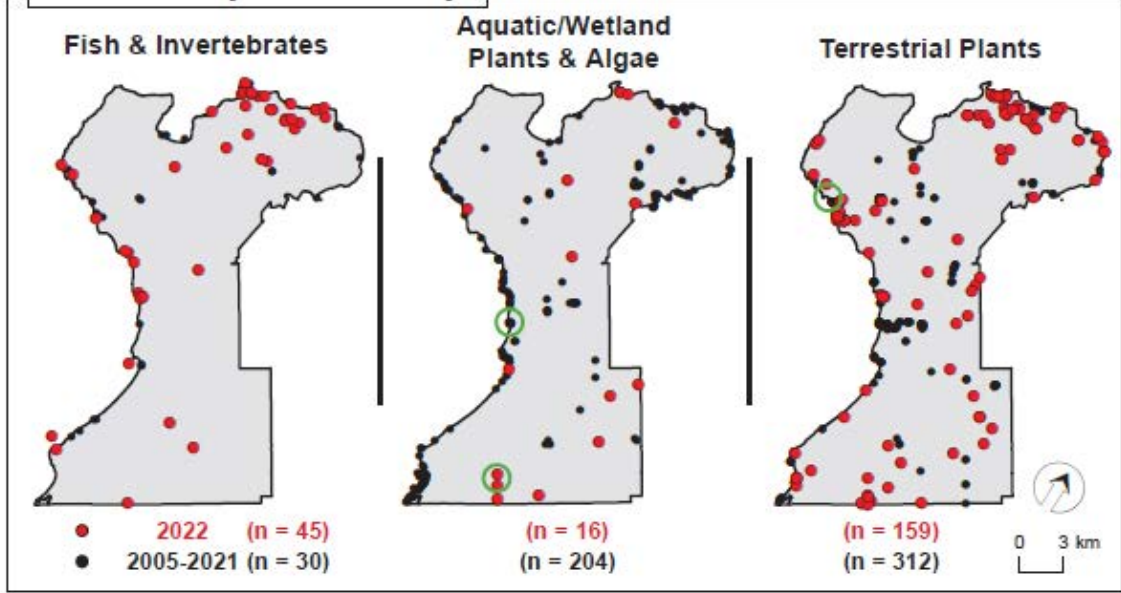
Species Group	Species Name
Aquatic Plants & Algae	Eurasian water-milfoil
Terrestrial Plants	Glossy buckthorn Japanese knotweed Spotted knapweed White sweet clover
Wetland Plants	Phragmites



Invasive Phragmites, Jackson Park



Invasive Species Group



Vulnerable Areas & Summary

Municipalities are vulnerable to the economic and social impacts of priority invasive species such as those listed in **Table 1**. For the Township of Tiny, high traffic areas including public or shared beach areas, public parks and trail systems are examples of places that may be at greater risk for invasive species introduction and establishment.

In 2022, SSEA continued to coordinate community phragmites management with Tiny Township and Cawaja Property Owners Association at Cawaja Beach. SSEA and M-T-M Conservation Association teamed up to offer training and educational opportunities for local high school students at Tiny Marsh, with over 20 students helping to manage invasive phragmites at the site. Beaches and wetlands will be high priority for phragmites management activities due to their cultural, recreational, and ecological importance to the township.

In fall of 2022, SSEA surveyed selected forested locations across the Severn Sound area for the invasive forest pest, spongy moth. The surveys help to forecast potential defoliation for the upcoming season (2023). In areas surveyed, numbers of spongy moth egg masses were low, resulting in a nil to light potential defoliation forecast.



Phragmites management at Cawaja Beach



Spongy moth egg masses

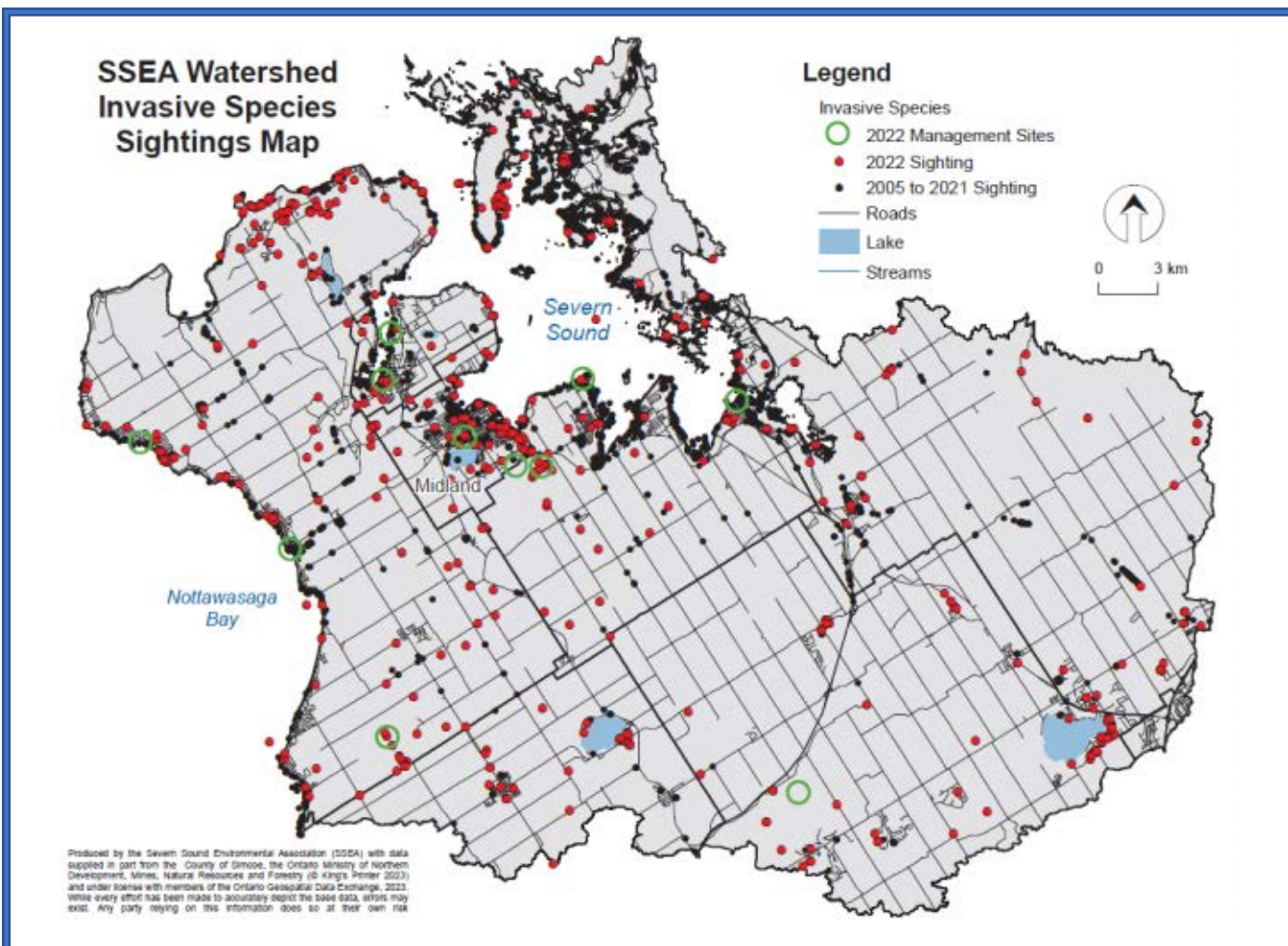


Biting stonecrop at Lafontaine Beach

Recommendations

The SSEA proposes to lead the following priority actions with the Township of Tiny in 2023:

- Monitor waterways for water lettuce – an invasive species of aquatic plant recently found in the Wye River near Midland
- Continue to manage spotted knapweed, phragmites and other priority invasive species at public sites by hosting community removal events
- Support partner organizations and groups in their work to manage invasive species, by providing technical expertise and assistance when possible, and collaborating to expand invasive species knowledge and management efforts across the watershed
- Increase engagement in Citizen Science initiatives such as the Invasive Species Spotter project to expand our understanding of invasive species distribution across the township and better detect new invasions as they occur.
- Provide invasive species workshops/educational opportunities for Township of Tiny staff and residents



119 species have been identified across the Severn Sound watershed to date. A list of all invasive species documented to date through the SSEA Invasive Species Program is provided in **Table 2**.

2022 Watershed Invasive Species Summary

- **43** sites surveyed for invasive species
- **658** occurrences of invasive species
- **12** SSEA/municipal-led community removal projects
- **120+** volunteers involved in community invasive species management
- **460** person hours spent on management (including volunteers, SSEA staff and municipal staff)
- **5** spongy moth egg mass surveys completed across the watershed to provide a potential defoliation forecast for 2023



Giant Hogweed

Table 02

List of documented invasive species found within the SSEA watershed to date. Highlighted rows indicate a species that has become established across eight municipalities. Species that are a considerable detriment to ecosystems, economy or human health have been prioritized in Table 1.

Species	Scientific Name	Midland	Penetanguishene	Tiny	Tay	Severn	Georgian Bay	Oro-Medonte	Springwater
Amur Maple	<i>Acer ginnala</i>	X		X	X	X		X	X
Annual Honesty	<i>Lunaria annua</i>			X				X	
Asian Lady Beetle	<i>Harmonia axyridis</i>	X	X	X	X	X	X	X	X
Autumn Olive	<i>Elaeagnus umbellata</i>	X		X	X				X
Banded Mystery Snail	<i>Viviparus georgianus</i>						X	X	
Basil-thyme	<i>Clinopodium acinos</i>	X		X		X			
Bird's-eye Speedwell	<i>Veronica persica</i>		X	X	X	X		X	X
Bird's-foot Trefoil	<i>Lotus corniculatus</i>	X	X	X	X	X	X	X	X
Biting Stonecrop	<i>Sedum acre</i>	X	X	X	X	X	X		X
Bitter Wintercress	<i>Barbarea vulgaris</i>	X	X	X	X	X	X	X	X
Bittersweet Nightshade	<i>Solanum dulcamara</i>	X	X	X	X	X	X	X	X
Black Locust	<i>Robinia pseudoacacia</i>	X	X	X	X	X	X	X	X
Bladder Campion	<i>Silene vulgaris</i>	X	X	X	X	X	X	X	X
Broad-leaved Helleborine	<i>Epipactis helleborine</i>	X	X	X	X	X	X	X	X
Brown Marmorated Stink Bug	<i>Halyomorpha halys</i>	X							
Bull Thistle	<i>Cirsium vulgare</i>	X	X	X	X	X	X	X	X
Butternut Canker	<i>Ophiognomonina clavignenti-juglandacearum</i>				X	X		X	
Canada Thistle	<i>Cirsium aevense</i>	X		X	X	X		X	X
Carpet Bugle	<i>Ajuga reptans</i>			X	X	X	X	X	X
Chicory	<i>Cichorium intybus</i>	X	X	X	X	X	X	X	X
Chinese Mystery Snail	<i>Cipangopaludina chinensis</i>	X			X	X	X	X	X
Coltsfoot	<i>Tussilago farfara</i>	X	X	X	X	X	X	X	X
Common Buckthorn	<i>Rhamnus cathartica</i>	X		X	X	X	X	X	X
Common Comfrey	<i>Symphytum officinale</i>			X					
Common Guelder-rose	<i>Viburnum opulus opulus</i>			X	X	X			
Common Lilac	<i>Syringa vulgaris</i>	X		X		X	X	X	X
Common Soapwort	<i>Saponaria officinalis</i>	X	X	X	X	X	X	X	X
Common Sow-thistle	<i>Sonchus oleraceus</i>			X					X
Common Swift Moth	<i>Korscheltellus lupulina</i>	X		X	X	X		X	X
Creeping Bellflower	<i>Campanula rapunculoides</i>	X	X	X	X	X	X	X	X
Creeping Jenny	<i>Lysimachia nummularia</i>	X			X	X	X	X	X
Curly Dock	<i>Rumex crispus</i>			X	X	X	X	X	X
Curly-leaved Pondweed	<i>Potamogeton crispus</i>	X	X	X		X	X		X
Dame's Rocket	<i>Hesperis matronalis</i>	X	X	X	X	X	X	X	X
Deptford pink	<i>Dianthus armeria</i>	X	X	X	X	X	X	X	X
Dog-Strangling Vine	<i>Vincetoxicum rossicum</i>			X	X	X	X	X	X
Emerald Ash Borer	<i>Agrilus planipennis</i>	X	X	X	X	X	X	X	X
English Ivy	<i>Hedera helix</i>	X		X					

Species	Scientific Name	Midland	Penetanguishene	Tiny	Tay	Severn	Georgian Bay	Oro-Medonte	Springwater
English plantain	<i>Plantago lanceolata</i>			X	X	X	X	X	X
Eurasian Water-milfoil	<i>Myriophyllum spicatum</i>	X	X	X	X	X	X	X	X
European Frog-bit	<i>Hydrocharis morsus-ranae</i>					X		X	X
Everlasting Pea	<i>Lathyrus latifolius</i>	X	X	X	X	X	X	X	X
Feather Reed Grass	<i>Calamagrostis acutiflora</i>						X		
Flowering Rush	<i>Butomus umbellatus</i>			X		X	X		
Forget-Me-Not	<i>Myosotis scorpioides</i>	X		X	X	X	X	X	
Freshwater Jellyfish	<i>Craspedacusta sowerbii</i>		X				X		
Garlic Mustard	<i>Alliaria petiolata</i>	X	X	X	X	X	X	X	X
Giant Hogweed	<i>Heracleum mantegazzianum</i>	X		X	X	X	X	X	X
Glossy Buckthorn	<i>Rhamnus frangula</i>	X	X	X	X	X	X	X	X
Goldfish	<i>Carassius auratus</i>				X	X			X
Goutweed	<i>Aegopodium podagraria</i>	X	X	X	X	X	X	X	X
Greater Burdock	<i>Arctium lappa</i>			X	X	X	X	X	
Greater Celandine	<i>Chelidonium majus</i>	X		X		X	X	X	X
Ground-Ivy	<i>Glechoma hederacea</i>	X	X	X	X	X	X	X	X
Hairy Willowherb	<i>Epilobium hirsutum</i>	X	X	X	X	X	X		X
Himalayan Balsam	<i>Impatiens glandulifera</i>	X	X	X	X	X		X	X
Hoary Alyssum	<i>Berteroa incana</i>	X	X	X	X	X	X	X	X
Hybrid Cattail	<i>Typha x glauca</i>		X	X	X	X	X	X	
Invasive Honeysuckles	<i>Lonicera sp.</i>	X	X	X	X	X	X	X	X
Japanese Barberry	<i>Berberis thunbergii</i>		X		X				
Japanese Beetle	<i>Popillia japonica</i>	X	X	X	X	X	X	X	X
Japanese Knotweed	<i>Fallopia japonica</i>	X	X	X	X	X	X	X	X
Japanese Pachysandra	<i>Pachysandra terminalis</i>	X			X			X	X
Large Yellow Underwing	<i>Noctua pronuba</i>	X	X	X		X	X	X	X
Leafy Spurge	<i>Euphorbia esula</i>	X						X	
Lesser Burdock	<i>Arctium minus</i>	X		X	X	X	X	X	X
Lesser Celandine	<i>Ficaria verna</i>				X			X	X
Lesser Periwinkle	<i>Vinca minor</i>	X	X	X	X	X	X	X	X
Lily of the Valley	<i>Convallaria majalis</i>	X	X	X	X	X	X	X	X
Manitoba Maple	<i>Acer negundo</i>	X	X	X	X	X	X	X	X
Narrow-leaved Cattail	<i>Typha angustifolia</i>	X	X		X	X	X	X	
Nipplewort	<i>Lapsana communis</i>	X	X	X		X	X	X	X
Norway Maple	<i>Acer platanoides</i>	X	X	X	X		X	X	X
Orange Day-lily	<i>Hemerocallis fulva</i>	X		X	X	X	X	X	X
Orange Hawkweed	<i>Pilosella aurantiaca</i>	X	X	X	X	X	X	X	X
Orchard Grass	<i>Dactylis glomerata</i>	X	X	X	X	X	X	X	X
Oriental Bittersweet	<i>Celastrus orbiculatus</i>	X						X	X
Oxeye Daisy	<i>Leucanthemum vulgare</i>	X	X	X	X	X	X	X	X
Phragmites	<i>Phragmites australis ssp. australis</i>	X	X	X	X	X	X	X	X
Purple Crownvetch	<i>Securigera varia</i>	X	X	X	X		X	X	X
Purple Loosestrife	<i>Lythrum salicaria</i>	X	X	X	X	X	X	X	X

Species	Scientific Name	Midland	Penetanguishene	Tiny	Tay	Severn	Georgian Bay	Oro-Medonte	Springwater
Quack Grass	<i>Elymus repens</i>	X					X	X	
Quagga Mussel	<i>Dreissena bugensis</i>	X		X	X	X	X	X	
Rainbow Smelt	<i>Osmerus mordax</i>	X	X	X					
Reed Canary Grass	<i>Phalaris arundinacea</i>	X	X	X	X	X	X	X	X
Ribbon Grass	<i>Phalaris arundinacea</i> 'Ribbon'	X							
Round Goby	<i>Neogobius melanostomus</i>	X	X	X	X	X	X	X	X
Rusty Crayfish	<i>Orconectes rusticus</i>			X		X		X	X
Scots Pine	<i>Pinus sylvestris</i>	X	X	X	X	X	X	X	X
Sheep's sorrel	<i>Rumex acetosella</i>			X	X	X	X		X
Siberian squill	<i>Scilla siberica</i>	X		X		X		X	X
Silver Poplar	<i>Populus alba</i>	X		X				X	X
Silvergrasses	<i>Miscanthus sp.</i>	X	X	X			X	X	X
Smooth Brome	<i>Bromus inermis</i>	X		X	X		X	X	X
Soapwort	<i>Saponaria officinalis</i>	X	X	X	X	X	X	X	X
Spiny Waterflea	<i>Bythotrephes longimanus</i>			X			X		
Spongy Moth	<i>Lymantria dispar dispar</i>	X	X	X	X	X	X	X	X
Spotted Knapweed	<i>Centaurea maculosa</i>	X	X	X	X	X	X	X	X
Spotted Lady's Thumb	<i>Persicaria maculosa</i>			X			X	X	
St. John's-wort	<i>Hypericum perforatum</i>	X	X	X	X	X	X	X	X
Star-of-Bethlehem	<i>Ornithogalum umbellatum</i>	X			X			X	X
Starry Stonewort	<i>Nitellopsis obtusa</i>	X	X	X	X	X	X		
Sweet Woodruff	<i>Galium odoratum</i>	X		X		X	X	X	X
Tansy	<i>Tanacetum vulgare</i>	X	X	X	X	X	X	X	X
Threespine Stickleback	<i>Gasterosteus aculeatus</i>	X							
Toadflax	<i>Linaria vulgaris</i>	X		X	X	X	X	X	X
Tubenose Goby	<i>Proterorhinus semilunaris</i>	X			X	X	X		
Tufted Vetch	<i>Vicia cracca</i>	X	X	X	X	X	X	X	X
Water Lettuce	<i>Pistia stratiotes</i>	X							
Watercress	<i>Nasturtium officinale</i>	X	X	X	X	X			X
White Mulberry	<i>Morus alba</i>	X							
White Perch	<i>Morone americana</i>	X	X						
White Sweetclover	<i>Melilotus alba</i>	X	X	X	X	X	X	X	X
Wild Parsnip	<i>Pastinaca sativa</i>	X		X		X		X	X
Winged Euonymus	<i>Euonymus alatus</i>	X					X		
Yellow Archangel	<i>Lamium galeobdolon</i>	X		X				X	X
Yellow Iris	<i>Iris pseudacorus</i>	X	X	X	X	X	X	X	X
Yellow Sweetclover	<i>Melilotus officinalis</i>			X					
Zebra Mussel	<i>Dreissena polymorpha</i>	X	X	X	X	X	X	X	X

