

Save The River®



Upper St. Lawrence RIVERKEEPER®



St. Lawrence River

Invasive Species

“What is an invasive species?”

An invasive species is an introduced **organism** that causes **ecological** or economic harm and harm to human health in an environment. The non-native organism can be split into two major categories: **terrestrial** and **aquatic**.

“Are they in the St. Lawrence River?”
Lawrence River?”



YES! They are in the St. Lawrence River but they are also everywhere else. They are in the Great Lakes and the lands surrounding these bodies of water—including Canada. There are still a few places that have remained untouched by invasive species, which is why preventing the spread is very important.

Vocab

Organism - an individual animal or plant

Ecological - the relation of living things to one another and their surroundings

Non-native - not the location of its natural occurrence

Terrestrial - an organism that lives mostly or entirely on land

Aquatic - an organism that lives most or entirely in water



“So there more plants and animals in the environment, isn’t biodiversity a good thing?”

Invasive species actually reduces biodiversity.

Invasives reproduce and eat twice as fast as native species do.

Invasives outcompete for limited resources such as food and space.

Biodiversity is the variety of life in an ecosystem or habitat.

Can you think of something else they do that negatively impacts the environment?

Draw Earth's Mightiest Defender

Create your own superhero to protect our ecosystem
from the villainous invasive species!

Species Profiles

Common Buckthorn

Common buckthorn is a small tree with stumps growing up to 20-25 feet tall and 10 inches wide. They have stems with grey to brown bark and twigs with sharp thorns. The leaves are small, dark glossy leaves that have a pointed top and stay green until fall.

Identifying features: Sharp thorns, and bright yellow or orange wood when cut



Phragmites

Phragmites is a perennial grass with a 15 foot stem that is somewhat rough to the touch. It has blue-green, elongate leaves that adhere to the stem and last through winter. Phragmites flowers in bushy clusters, often purple or golden in color.

Identifying features: Tall, fluffy grass in wetlands or along roadsides

Oriental Bittersweet

Oriental bittersweet is a deciduous, woody, twining vine that grows up to 98 feet tall and 7 inches in diameter. The leaves are alternate, glossy, finely toothed, and rounded. The stem is brown with a white pith and bright orange roots. The flowers have small, greenish yellow petals. They also have bright yellowish orange fruit with 3 to 6 seeds.

Identifying features: Vine suffocating tall trees and shrubs, bright berries



Garlic Mustard

Garlic mustard is a biennial herb that grows between 2 to 6 feet tall. The leaves are triangular and heart-shaped with toothed edges and white four-petal flowers.

Identifying features: Crushed leaves smell like garlic



Japanese Honeysuckle

Japanese Honeysuckle is a perennial, deciduous twining vine with reddish brown to light brown stems. Leaves are paired, ovate to oblong and deeply toothed. The flowers are white turning yellow, highly fragrant, and have nectar while the fruits are black, paired, and made in the fall.

Identifying feature: Fragrant, whitish yellow flowers

Species Profiles

Eurasian Watermilfoil

EWMF is a rooted, submerged plant that grows between 3 to 20 feet tall. Leaves are green, feather-like and arranged in a whorl around a light brown to pink stem. The tip of the plant is usually red or pink in color and can produce small pink flowers. Roots are thin, white and dense and produce 100 seeds per season.

Identifying features: Spaced, feather-like leaves, red to pink tip



Curly Leaf Pondweed

CLP is a rooted, submersed aquatic plant that can grow to the water's surface. It varies from olive green to reddish brown in color and has green flowers. The roots are thick and pale yellow in color. Leaves are toothed with blunt tips, arranged alternately and dense at the bottom of the white, green, brown or red stem.

Identifying features: Wavy, lasagna-like leaves



Rusty Crayfish

Rusty crayfish is an Ohio native crustacean that grows 3 to 5 inches long. They have large, robust claws with black banded tips and are grayish-green in color with brown rusty spots on their back.

Identifying features: Rusty spots on either side of their back



Round Goby

Round goby is a fish that grows up to 6 inches long. They are typically solid gray with light gray, olive green, or black markings. They have raised eyes, a fused pelvic fin and a dorsal fin that has a black dot.

Identifying feature: Black dot on dorsal fin



Water Chestnut

Water chestnut is a rooted, annual herb with a submerged 12 to 15 feet long stem. The floating leaves are triangular, saw-toothed with hollow stems that grow to form a rosette. The tiny, white petaled flowers bloom in June. Each plant can produce 20 hard nuts with spines and barbs that are viable for 12 years.

Identifying feature: Triangular leaves that grow in rosette form

“When did they get introduced?”

Invasive species get introduced into the Great Lakes and St. Lawrence River watershed more than people think. A new invasive species is discovered every 6 to 8 months! Draw a picture of the invasive with its corresponding year of introduction.



Phragmites

Late 1700s—Early 1800s

Japanese Honeysuckle

1806



Common Buckthorn

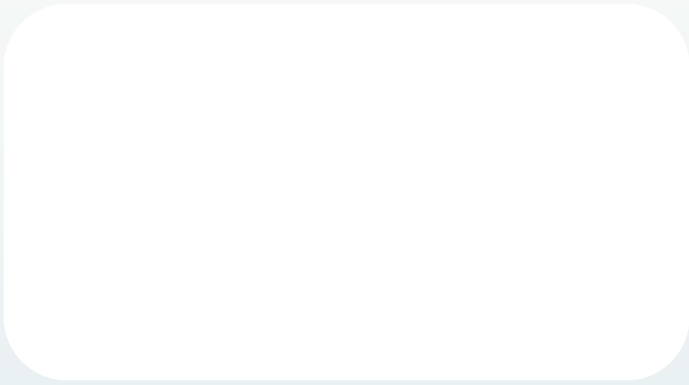
1848



Garlic Mustard

1868



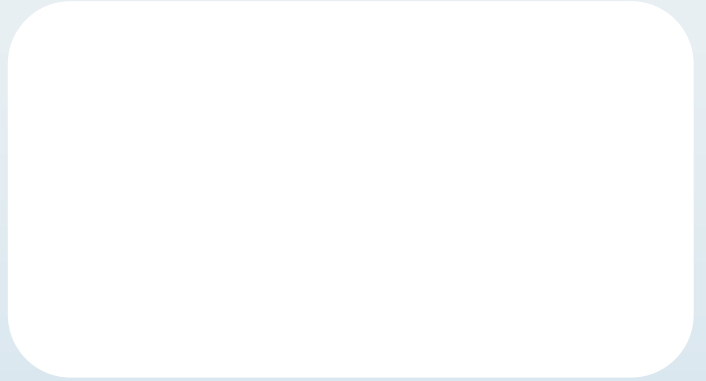


Water Chestnut

Mid to late 1870s

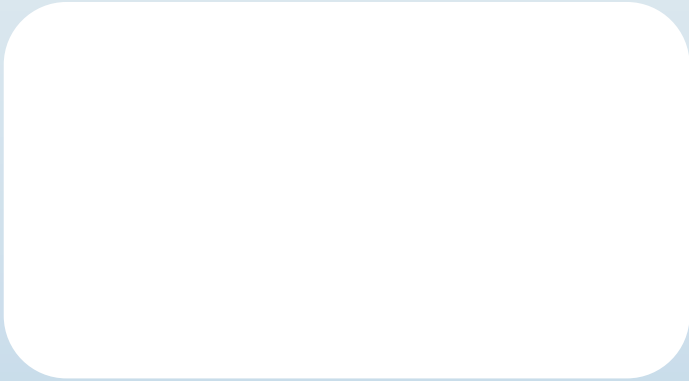
Curly Leaf Pondweed

1880s



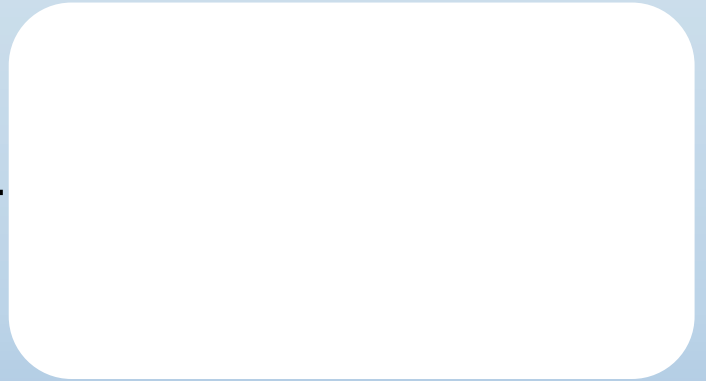
Eurasian Watermilfoil

1880s



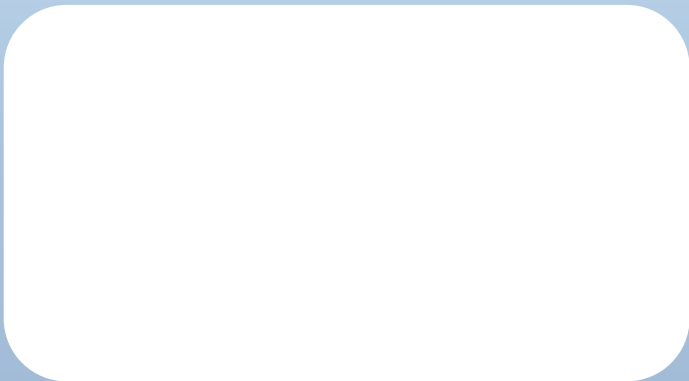
Rusty Crayfish

1960s



Round Goby

1990s



How can I help stop the

Clean, drain, and dry with the Thousand Islands Land Trust Watercraft Inspection Program! The stewards assist with inspecting boats (and more!) for invasives like the zebra and quagga mussels.



Did you know that Quagga mussels are bigger than Zebra mussels?



Japanese Honeysuckle



Coral Honeysuckle

Tench impact aquatic food webs, outcompete native fish, increase water turbidity by stirring up sediments, contribute to algal blooms and introduce non-native parasites. You can help by reporting if caught.



Tench

Use native or non-invasive plants for your gardens and landscaping.

For example, instead of using Japanese Honeysuckle for your garden, choose to use the native Coral Honeysuckle.

spread of invasive species?

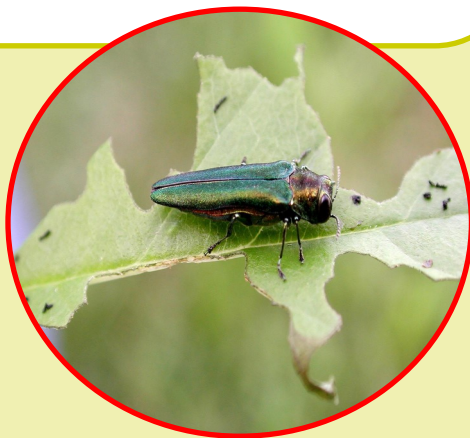


Report any sightings of invasive species to Save The River, the Department of Environmental Conservation or your local environmental organization. You can use the apps like iNaturalist or Seek to assist you in identifying and reporting.

Do not move firewood!
Insects, like the invasive Emerald Ash Borer, can lay eggs and spread through the transportation of firewood.



Hikers and climbers should clean off their gear before leaving the site they use. This helps prevent the accidental transport of invasive seeds or plant parts.



Fishermen should clean all equipment including rods, reels, tackle boxes, etc. They should also dispose unwanted bait in trash cans or disposal sites.



**W
O
R
D

S
C
R
A
M
B
L
E**

Directions: Unscramble the following words to see how you can prevent the spread of invasives.

Inace

danir

ryd

netcpsi

eotrpr

rbveose

vormee

ftiidney

ttiuncg

You're ready to make a difference in the Thousand Islands region!

But how will you do it?

First, you need a plan. Use this page to develop a SMART goal for your project. You may choose 1 project:

help native species OR stop the invasive species

Which project do you choose? _____

Creating a SMART goal will allow you to think critically about your project.

SMART goals are Specific, Measurable, Attainable, Relevant, and Time-Based.

Here is an example of a SMART goal:

Specific: At the grocery store down the street, I will spend \$10 to buy 4 chocolate bars, 1 bag of marshmallows, and 1 box of graham crackers.

Measurable: I will add up the cost of each item and check that I have all the items in my shopping cart.

Attainable: I know I can do this because I have a ride to the grocery store and I've done it before.

Relevant: I need these items because I want to make s'mores with my family.

Time-Based: I will accomplish this shopping trip today.

Specific

Measurable

Attainable

Relevant

Time-Based

Funding for this booklet was provided by RBC Wealth Management.

Developed and created in 2022 by Chelsea Broughton.

Resources:

SLELO PRISM—www.sleloinvasives.org

NYS Department of Environmental Conservation—www.dec.ny.gov

Save The River®



Upper St. Lawrence RIVERKEEPER®

Savetheriver.org

(315) 686-2010



WATERKEEPER® ALLIANCE
MEMBER

409 Riverside Dr, Clayton, NY 13624