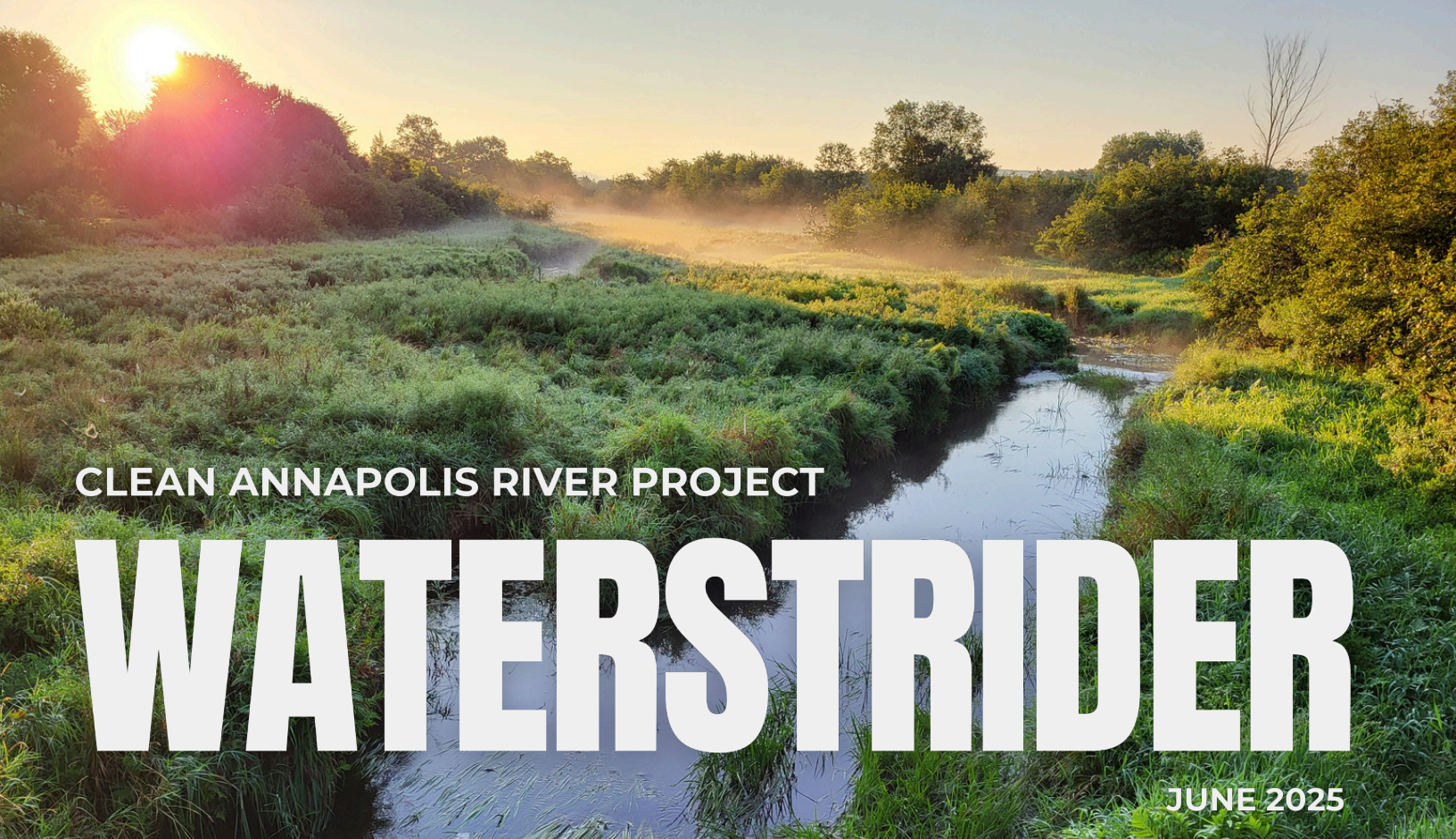




CLEAN ANNAPOLIS RIVER PROJECT

WATERSTRIDER

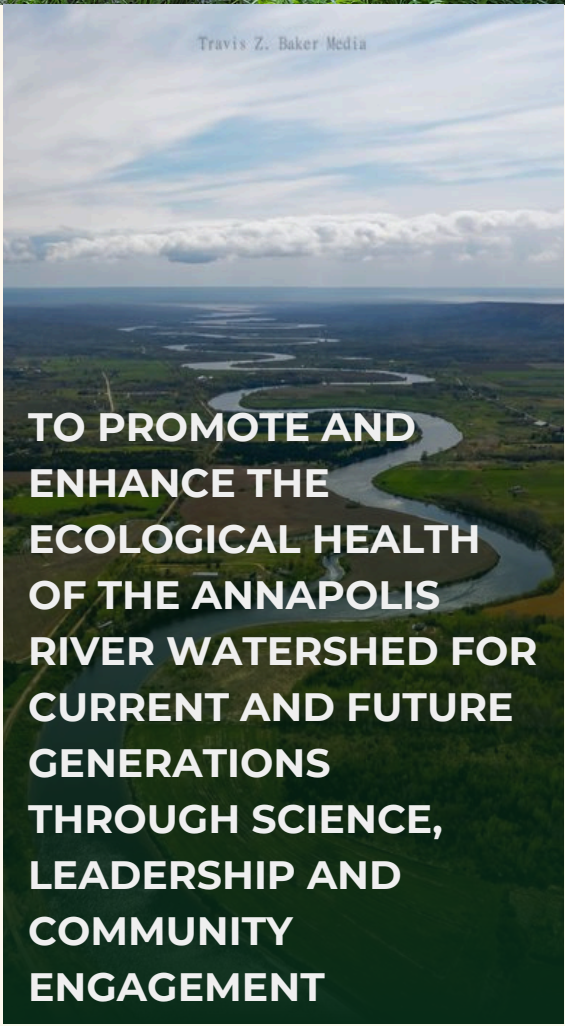
JUNE 2025

Clean Annapolis River Project (CARP) is a charitable, community-based, non-governmental organization committed to enhancing the ecological health of the Annapolis River watershed.

In this edition, we're focusing on invasive species in Nova Scotia—what they are, how to identify them, the impacts they have, and what you can do to help. Keep reading to learn more!

Thank you for your continued support for Clean Annapolis River Project.

Travis Z. Baker Media



**TO PROMOTE AND
ENHANCE THE
ECOLOGICAL HEALTH
OF THE ANNAPOLIS
RIVER WATERSHED FOR
CURRENT AND FUTURE
GENERATIONS
THROUGH SCIENCE,
LEADERSHIP AND
COMMUNITY
ENGAGEMENT**

WHAT IS AN INVASIVE SPECIES?

Invasive species are plants, animals and micro-organisms that have been introduced into areas beyond their native range and negatively impact the environment, the economy, or society.

WHAT IMPACTS DO INVASIVE SPECIES HAVE?

It is widely accepted that invasive species are an immense threat to biodiversity worldwide. In Canada alone, more than 20% of our species at risk are threatened with extinction by invasive species. Invasive species cause harm in several ways. For example, they may eat native species, take their food and space, contribute to soil degradation and erosion, introduce new diseases, and degrade water quality and habitat. The destruction caused by invasive species also has adverse effects on human life. Invasive species can damage buildings and roads. From an economic viewpoint, invasive species greatly impact productivity and profit in forestry, agricultural, and fishing industries, as well as reducing recreational opportunities.



Red swamp crayfish (invasive)

HOW DID INVASIVE SPECIES GET HERE, AND HOW DO THEY SPREAD?

Humans are largely responsible for the movement of invasive species from one area to another. Many human-assisted pathways have permitted the introduction of invasive species in Nova Scotia. Examples of these pathways include – but are certainly not limited to – horticultural trade, aquarium trade, the movement of shipping containers, ballast water tanks in cargo ships, recreational boating, and the release of species for hunting or angling purposes. Once established, invasive species can spread naturally or be moved further by human activities such as outdoor recreation, the release of pets into the environment, or the movement of firewood.

WHAT CAN YOU DO?

Every day activities often contribute to the spread of invasive species. For example, buying products from overseas requires transportation via container ships; those ships may inadvertently transport invasive species to Nova Scotia. Buying local products and reducing your overall ecological footprint not only helps to reduce habitat destruction, climate change, pollution, and overexploitation of natural resources – it is also fundamental for the prevention of invasive species introductions across the globe.



Japanese beetle (invasive)



Zebra Mussel (invasive)

BIODIVERSITY: A NATURAL ADVANTAGE FOR FARMERS

By: Shaeralee McCutcheon

Nature works best when all of its components work together. That's biodiversity: a healthy mix of plants, animals, insects, and soil life all playing their part. On a working farm, that variety isn't just nice to have—it's a game-changer.

Farms, even though they're managed by people, are still ecosystems. Plants, animals, and soil all rely on one another for nutrients and habitat. Agro-ecosystems thrive on balance, and that balance comes from diversity. Industrial farming practices often disrupt this natural harmony.

Why does biodiversity matter?

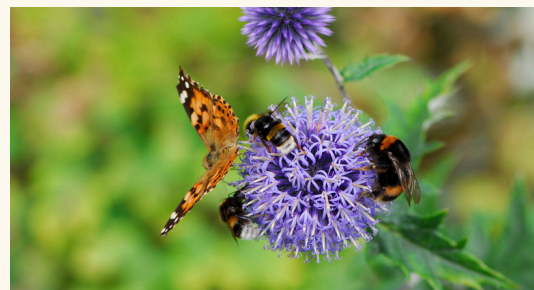
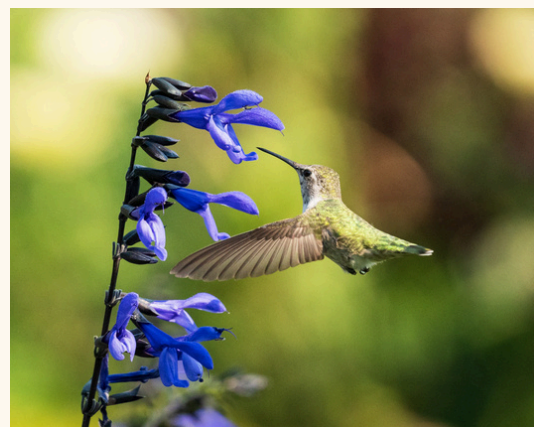
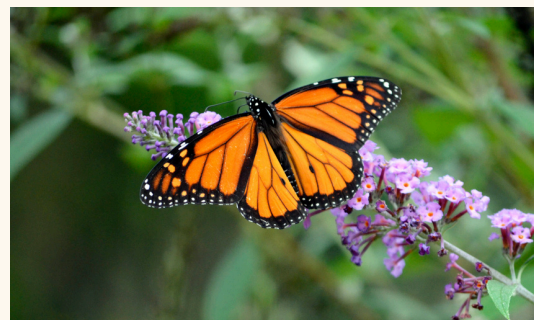
For starters, it helps control pests—naturally. Growing a mix of crops and leaving some wild spaces around your farm attracts beneficial insects, birds, and other predators that keep pests in check. That means fewer chemicals, lower costs, and healthier crops.

Pollination also gets a big boost. Farms with a variety of flowering plants support more bees, butterflies, and other pollinators, leading to better yields, stronger harvests, and more consistent production.

Perhaps the greatest benefit of all is resilience. A diverse farm is better equipped to handle surprises—whether it's a dry spell, a pest outbreak, or an unpredictable season. If one crop struggles, others can fill in the gaps. It's nature-backed risk management.

In short, boosting biodiversity on your farm isn't just good for the environment—it's good for your bottom line. More balance = More resilience, and fewer problems down the road.

Are you interested in increasing biodiversity on your farm? Contact CARP to learn more about on-farm assessments and how we can help support your goals.



HEMLOCK UNDER THREAT: THE SPREAD OF WOOLLY ADELGID IN NOVA SCOTIA

By: Agnia Uskemeko

You may have already heard about **Hemlock Woolly Adelgid** (*Adelges tsugae*), or HWA—a tiny, aphid-like insect responsible for negatively affecting the health of hemlock trees.

Originally from Japan, HWA was introduced to eastern North America in the 1950s. It spreads naturally via wind, birds, mammals (including humans), and can travel long distances on infested logs or firewood.

Once HWA finds its way to a hemlock tree, the clock starts ticking. Within just 5 to 15 years, the tree can die. These insects attach at the base of the needles and begin feeding, which kills the needles and buds, eventually leading to branch dieback. Hemlocks of all sizes and ages are vulnerable.

Why should we care and act now?

Eastern Hemlocks were once a dominant species in Nova Scotia's forests. Many local wildlife species have adapted to the unique environment created by these mighty, cool, and shady trees. Hemlocks provide dense



canopy cover, which shelters animals from heavy snow in the winter and helps keep forests cool and moist in the summer.

This cooling effect is especially critical for aquatic ecosystems. Hemlocks help regulate stream and river temperatures, providing ideal breeding conditions for cold-loving fish like brook trout and Atlantic salmon. As HWA kills hemlocks and their canopy disappears, increased sunlight warms the water, putting these species—and the ecosystems they support—at risk.

Learn more, report HWA sightings, and get involved



Image source: Nova Scotia Hemlock Initiative



How to identify HWA

This picture shows what HWA can look like on an infected tree. To check a hemlock for HWA, flip a branch over and look at its underside. Check the base of the needles for small, fuzzy white patches. This is indicative of an HWA infestation. These fuzzy patches are most easy to see in all times of the year except mid to late summer. One can also see lack of new growth or needle dieback in the infected trees.

UNDERWATER INVADERS: PROTECTING OUR FRESHWATER ECOSYSTEMS FROM CHAIN PICKEREL AND SMALLMOUTH BASS

By: Rachel Walsh

Nova Scotia's freshwater ecosystems face growing threats from aquatic invasive species (AIS). Two species of concern are **Chain Pickerel** (*Esox niger*) and **Smallmouth Bass** (*Micropterus dolomieu*). These predatory fish have had significant ecological impacts across the province.

A Growing Problem

Smallmouth Bass were legally introduced into a few Nova Scotia lakes in the 1940s and have since spread to at least 188 lakes and rivers. Chain Pickerel, introduced illegally to three lakes around 1945, are now found in at least 95 lakes. These species continue to spread through both intentional human activity and natural dispersal within connected waterways.

Once established, both species alter the balance of aquatic ecosystems. They quickly become top predators, outcompeting or consuming native species such as Brook Trout (*Salvelinus fontinalis*)—a favourite among local anglers. Chain Pickerel are especially aggressive, preying on most soft-bodied fish and disrupting entire food webs. Their presence can reduce populations of native fish and even affect birds, mammals, and reptiles including mergansers, kingfishers, mink, and turtles.

Despite education and stewardship efforts, illegal introductions continue to fuel the spread of these invasive fish.



Chain Pickerel (*Esox niger*)



Smallmouth Bass (*Micropterus dolomieu*)

WHAT YOU CAN DO TO HELP

To prevent the spread of AIS, follow these simple but important steps:

- **Inspect and clean** your boat, trailer, motor, fishing gear, anchors, and other equipment before leaving any water body. Remove all visible plants, animals, and mud.
- **Drain** water from bilges, live wells, motors, and other compartments on land immediately after use.
- **Dry or decontaminate** your gear thoroughly—some invasive species can survive for more than two weeks out of water. Rinse with hot water, spray with high-pressure water (250 psi), or allow your gear to **dry in the sun for at least 5 days** before using it elsewhere.
- **Avoid releasing live bait** and become familiar with AIS threats in your area.



Chain Pickerel (*Esox niger*)

- Named for its chain-like dark markings on greenish sides.
- Long, slender body with a deeply forked tail.
- Large head with a pointed snout and dark vertical bar under each eye.
- Dorsal fin set far back near the tail.
- Entire cheeks and gill covers are covered in scales.
- Equipped with large, sharp teeth.



Smallmouth Bass (*Micropterus dolomieu*)

- Robust body with reddish eyes, a blunt snout, and a slightly protruding lower jaw.
- Colour ranges from golden-brown to olive green with faint vertical bars on the sides.
- Two connected dorsal fins: one spiny, one soft.
- Lighter underside, typically cream or white.
- Colour intensity and markings vary depending on water clarity.

Smallmouth Bass vs. Perch

Smallmouth Bass are often mistaken for White or Yellow Perch, but here's how to tell them apart:

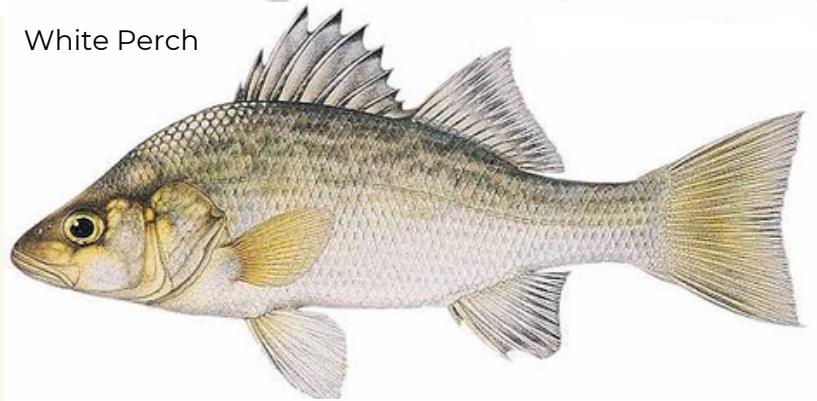
- **Smallmouth Bass:** Dorsal fins are joined; have vertical bars but no horizontal stripes.
- **Yellow Perch:** Two completely separate dorsal fins; yellow-green sides with black vertical stripes.
- **White Perch:** Dorsal fins slightly joined; lacks vertical stripes; colour varies from olive to silver.

Nova Scotia's lakes and rivers are part of what makes this province so special. Together, we can protect these ecosystems by staying informed and practicing responsible recreation.

Small Mouth Bass



White Perch



Yellow Perch



ELEPHANT GRASS INVADES: THE SPREAD OF PHRAGMITES IN NOVA SCOTIA

By: Grace Bowen-MacLean

Locally known as "elephant grass" in Annapolis Royal, Phragmites is believed to have first arrived in Nova Scotia in this community. According to local lore, it earned its nickname because it was once used as bedding for circus animals—a quirky origin story for a plant that's anything but harmless. Today, Annapolis Royal is considered a hotspot for this invasive species.

Phragmites australis, or common reed, is a tall, fast-spreading grass native to Eurasia that can grow up to 5 metres (16 feet) high. While it may look picturesque, it aggressively invades wetlands and shorelines, outcompeting native vegetation, altering habitats, and damaging sensitive coastal ecosystems. Here's a closer look at how Phragmites impacts our region — and what you can do to help manage its spread:

INVASIVE NATURE

Phragmites is considered an invasive species in North America because it spreads rapidly and outcompetes native plants for resources like water and nutrients. It forms dense monocultures, reducing plant and animal diversity in affected areas. Phragmites also alters dune ecology, displacing rare native species in coastal areas.



IMPACTS

Ecosystem Damage: Phragmites can disrupt natural wetland habitats, impacting biodiversity and wildlife.

Coastal Impacts: It can alter coastal ecosystems, including beaches and dune habitats, potentially impacting erosion control and wildlife.

Water Flow Issues: The dense growth of Phragmites can clog drainage ditches and waterways, affecting water flow and potentially leading to flooding.

Threat to Endangered Species: Phragmites can negatively impact species that rely on specific plant communities in their natural habitats.



DISTINGUISHING FEATURES (INVASIVE VS. NATIVE)

Foliage: Invasive Phragmites has more blue-green foliage, while native Phragmites has green-yellow foliage.

Stems: Invasive Phragmites has tan stems, while native Phragmites has red/brown stems.

Seedheads: Invasive Phragmites has denser, purple-colored seedhead plumes, while native Phragmites has sparse, tan-colored seedhead plumes.

Growth Habit: Invasive Phragmites often forms dense monocultures, while native Phragmites can coexist with other wetland plants.

INVASIVE PHRAGMITES

- grows in stands that can be extremely dense with as many as 200 stems per square metre;
- can grow so densely that it crowds out other species;
- can reach heights of up to 5 metres (15 feet), and
- has stems that are tan or beige in colour with blue-green leaves and large, dense seedheads.

NATIVE PHRAGMITES

- grows in stands that are usually not as dense as the invasive plant;
- well-established stands are frequently mixed with other plants; and
- usually has more reddish-brown stems, yellow-green leaves and smaller, sparser seedheads.

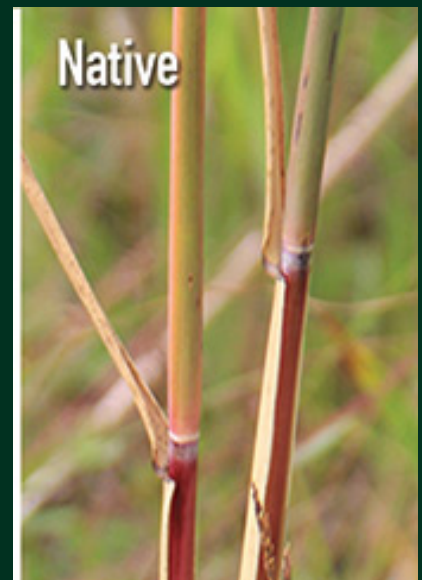
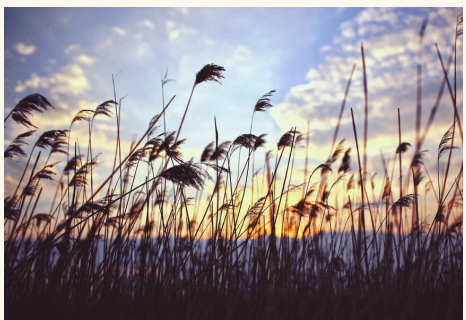


Image source: Nature Conservancy Canada



MANAGEMENT

Control Methods:

Various methods are used to control Phragmites, including cutting, herbicide applications, and prescribed burns.

Preventing Spread:

Staying on designated trails, cleaning equipment, and reporting sightings can help prevent the spread of Phragmites.

Species-Specific Control:

Some areas are using biological control agents, such as certain species of moths, to target invasive Phragmites.

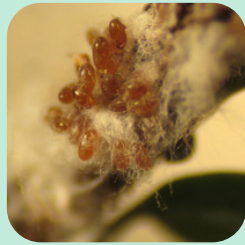
A Guide to Invasive Invertebrates in Nova Scotia

1 Hemlock Woolly Adelgid

Scientific Name: *Adelges tsugae*

Native Range: Eastern Asia

ID Features: Look for a black, wingless, waxy Aphid-like insect. There are two generations. The first is 1.4 mm long and occurs from June to March. The second, present from March to June, is 0.9 mm long. HWA lays



Shimat Joseph, University of Georgia
© Bugwood.org

clusters of oblong amber eggs in white woolly ovisacs. Only nymphs, which are 1.5 mm long and orange-brown, are mobile. **Impacts:** HWA targets Eastern Hemlock (*Tsuga canadensis*). They feed on needles, resulting in defoliation and eventual tree death. Tree death leads to a loss of food and shelter for wildlife, including aquatic species.

Mode of Transportation: Nursery stock, firewood, wood products

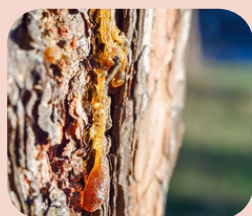


3 Brown Spruce Longhorn Beetle

Scientific Name: *Tetropium fuscum*

Native Range: Europe, Russia, and Japan

ID Features: Look for a reddish-brown beetle with a flat body, dark brown legs, antennae and head. Adults are 0.8-1.8 cm long. On trees, look for needle loss, irregular feeding galleries, sawdust-like excrement, and resin buildup.



Impacts: This pest targets conifer trees. Its larvae feed on the phloem, impairing nutrient transport, weakening trees, and causing death within 1-5 years.

Mode of Transportation: Firewood, wood products

2 Beech Leaf Mining Weevil

Scientific Name:

Orchestes fagi

Native Range: Europe

ID Features: Look for a 2-3 mm long weevil with short golden hair, long black legs, and a protruding snout.

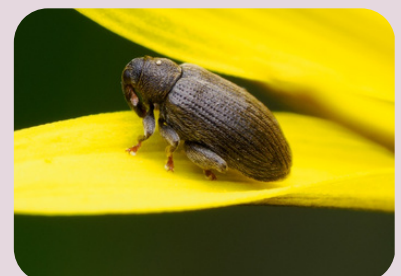


© Ian Manning, iNaturalist

Impacts: Target Beech trees (*Fagus* spp.). In spring, they eat and lay their eggs inside the new leaf growth of Beech trees, leaving several small holes. Invaded trees appear defoliated or burnt, and eventually succumb to predation.

Mode of Transportation:

Firewood, logs, and infested host plants



© David Kaliss, iNaturalist

4 Cottony Ash Psyllid

Scientific Name: *Psyllopsis discrepans*

Native Range: Europe

ID Features: Look for a yellow-green aphid-like insect with black markings, transparent wings, and jumping flea-like behaviour. Adults are about 3 mm long. On trees, look for curling leaves and a white cottony substance produced by nymphs.

Impacts: Targets Ash trees, especially the threatened Black Ash (*Fraxinus nigra*). They weaken trees by feeding on sap from the leaves.



© David McCorquodale, iNaturalist

7 Spongy Moth AKA LDD Moth

Scientific Name: *Lymantria dispar*

Native Range: Europe

ID Features: Look for caterpillars 6 cm long with five pairs of blue dots and six pairs of red dots. Winged moths are brown with feathery antennae (males) and beige (females). Egg masses are tan-yellow and covered in fuzz.

Impacts: Larvae feed on the crown foliage of hardwood and some softwood trees, causing defoliation and potentially total tree death.

Mode of Transportation: Firewood, camping equipment, vehicles

Caution: Caterpillar hairs can cause skin irritation.



5 European Elm Bark Beetle

Scientific Name: *Scolytus multistriatus*

Native Range: Europe

ID Features: Look for reddish-brown or black beetles 2-3 mm long. In Elm trees, look for leaf wilt in early summer, boring holes, a network of feeding galleries, and brown staining under the bark.



© Gleb Babich, iNaturalist

Impacts: EEBB targets Elm trees. It feeds on the bark, causing Dutch Elm Disease, a fungal growth that quickly spreads through beetle reproduction. It causes tree death within 1-2 years.

Mode of Transportation: Firewood, wood products

6 Emerald Ash Borer

Scientific Name: *Agrilus planipennis* **Native**

Range: North- eastern

ID Features: Look for 8.5- 14 mm long, metallic-green and bright-emerald borers with a flat head in June and August. EAB Create D-shaped holes in bark and winding feeding galleries.



Impacts: Target Ash (*Fraxinus* spp.) trees, including threatened Black Ash (*Fraxinus nigra*). Adults feed on foliage and lay eggs in bark crevices. Larvae feed on the living tissue of Ash trees. EAB causes premature yellowing, loss of foliage, and tree death within 1-4 years.

Mode of Transportation: Firewood, wood products



© Marilynn Miller, iNaturalist

8 Japanese Beetle

Scientific Name: *Popillia japonica*

Native Range: Japan

ID Features: Look for metallic-green and copper brown beetles that are 1 cm long and feature five distinct white tufts of hair along their abdomen. The adult beetles are very social—where there is one, there are likely more nearby. On plants, look for a lace-like feeding pattern on leaves.

Impacts:

Japanese Beetles are heavy eaters. They feed on flowers, trees, crops and grasses.

Predation of these plants reduces food for wildlife, increases the risk of disease, and damages crop yields.

Mode of Transportation: Nursery stock, vehicles



What to watch for...

9 Crayfish

Scientific Name: *Orconectes limosus*, *Procambarus clarkii*

Native Range: United States

ID Features: Look for small lobster-like crustaceans.

Impacts: Crayfish can significantly alter habitats due to their burrowing behaviour and influence on aquatic food webs.

Mode of Transportation: Improper disposal of aquarium contents, aquatic recreation

10 Chinese Mystery Snail



© Heather Haughn, iNaturalist



© Mike Cowland, iNaturalist

Scientific Name: *Cipangopaludina chinensis*

Native Range: Eastern Asia

ID Features: Look for a large spherical shell 6.5-7 cm long with 6-7 whorls separated by sutures. CMS may be olive, green-brown, or red-brown.

Impacts: Establishing populations of CMSs could severely disrupt native mussel and snail populations, altering fish eating habits and nutrient cycling in aquatic ecosystems.

Mode of Transportation: Improper disposal of aquarium contents, aquatic recreation, water gardens

11 European Fire Ant

Scientific Name: *Myrmica rubra*

Native Range: Europe, northern Asia

ID Features: Look for a red or brown ant that is 4-5 mm long. Nest mounds are not prominent, making them easy to miss.



Impacts: EFA tend to form supercolonies, which take over the habitats of native species and promote the spread of invasive plants.

Mode of Transportation: Dispersal of infested soil

Caution: EFAs sting when disturbed (sometimes multiple times), causing a burning and itching sensation.

Record your observations!



Help track and stop the spread of invasive species by becoming a citizen scientist!

Join these  iNaturalist groups today

- Nova Scotia Invasive Species Council: Invasive Species in Nova Scotia
- Canadian Council on Invasive Species: I Spy and Identify Invasives



UNWELCOME VISITORS: SALTWATER INVASIVE SPECIES IN NOVA SCOTIA

BY: JACK MORRIS



Our coastal ecosystems are under threat from some unexpected — and unwelcome — guests. Invasive marine species like *Didemnum vexillum* (aka “sea vomit”), skeleton shrimp, and green crabs are spreading throughout Nova Scotia’s coastal waters. These species can outcompete native marine life, disrupt habitats, and impact local fisheries and aquaculture. In this section, we take a closer look at who they are, how they got here, and what their presence means for the health of our oceans.

EUROPEAN GREEN CRAB (*CARCINUS MAENAS*)

Originally discovered in Nova Scotia in 1953, the European Green Crab is native to Europe and North Africa. Like many invasive aquatic species, it likely arrived in the ballast water of ships. While similar in appearance to several of Nova Scotia’s native crabs, Green Crabs are easily identifiable by the five sharp spines visible on the side of each eye, their pentagonal shape, and their green colour, which can also include shades of orange or yellow.

Known for their aggressive and territorial temperaments, Green Crabs are highly resilient, adaptable, and disruptive to native ecosystems. They can survive outside of the water for up to five days! By creating increased competition for native crab species, feeding on a wide variety of native animals and plants, and impacting populations of native lobster and crab, Green Crabs damage native ecosystems and place added stress on the commercial lobster industry.

Green Crabs have also been known to consume eelgrass shoots and uproot eelgrass when foraging for food, negatively affecting vital habitat for juvenile fish species and invertebrates.



JAPANESE SKELETON SHRIMP (*CAPRELLA MUTICA*)

Native to East Asia, the Japanese Skeleton Shrimp was first reported in Canada in 1998 and has since spread to all maritime provinces, Quebec, and the coasts of British Columbia. Individuals can grow up to 3cm in length and range in colour from pale orange to red, and are often found on structures ranging from ropes and buoys to mussel aquaculture socks. Poor swimmers, Japanese Skeleton Shrimp will usually cling to their substrate, rarely moving unless they are agitated.

These invasive species reproduce rapidly, are adapted to a wide range of temperatures and salinity levels and have been known to infest structures at a density of 100,000 individuals per square meter. Continued growth of Japanese Skeleton Shrimp populations could further displace native shrimp species.



Image Source: Government of Canada, DFO

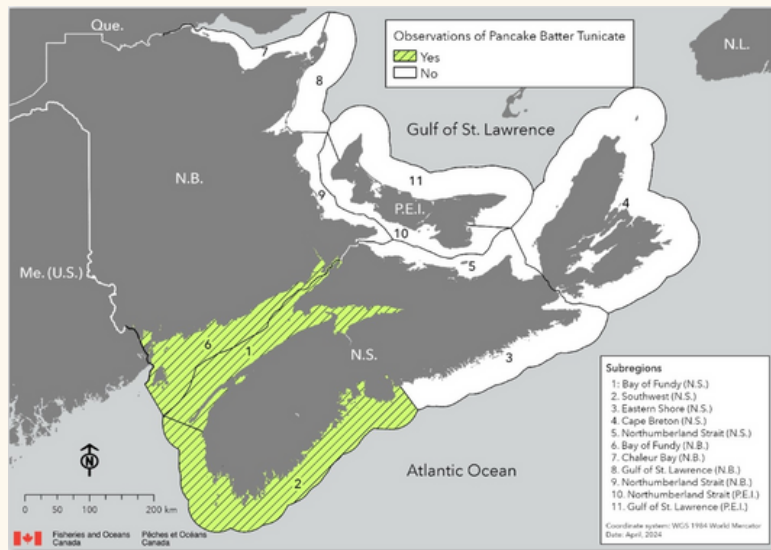


Image Source: Government of Canada, DFO

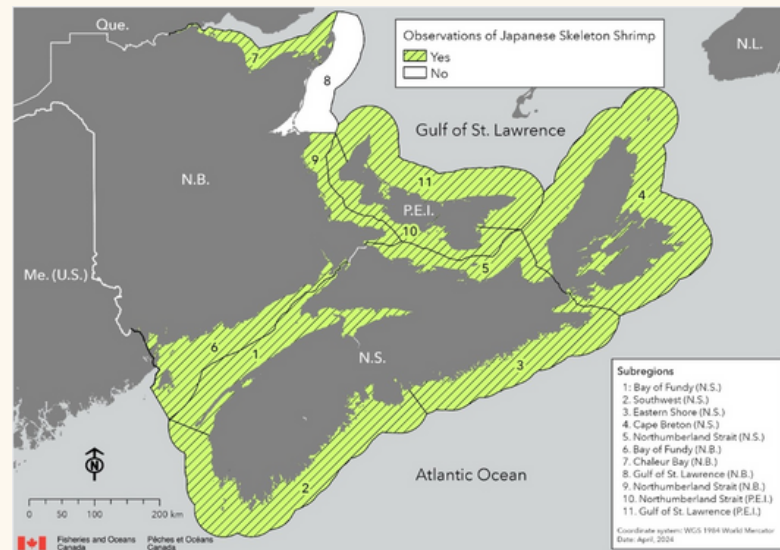


Image Source: Government of Canada, DFO



SEA VOMIT (*DIDEMNUM VEXILLUM*)

Sea Vomit, also known as Pancake Batter Tunicate, is an invasive colonial tunicate that threatens the Bay of Fundy and southwest Nova Scotia. Originally from Japan, it often spreads due to biofouling—travelling in ship ballast water, latching onto hulls, and forming colonies on marine gear.

Comparisons to vomit and pancake batter are apt. Many individual animals form large, pale, yellow, rubbery, gelatinous mats that coat hard surfaces and the seabed. Sea Vomit blocks access to the seabed and suffocates the larvae of native species like Scallops. Aquaculture operations in the U.S. and Canada have been heavily affected by biofouling tunicates. In warming waters like the Bay of Fundy, Sea Vomit is primed to thrive.

To avoid the spread of Sea Vomit, boaters are encouraged to check their hulls and gear, clean any gear covered in Sea Vomit with soap and water, and leave the gear out to dry. If you see Sea Vomit, take a picture and note the date and location. If possible, collect a sample (you can either freeze it or store it in ethanol) and send the details to fundyseavomit@gmail.com.



FROM GARDEN FENCE TO FIELD PEST: THE RISE OF MULTIFLORA ROSE

By: Shaeralee McCutcheon

A vigorous rose bush might sound like a gardener's dream, but multiflora rose can quickly become a nightmare if it takes root on your property or farm. Native to eastern Asia, this highly invasive shrub was introduced to North America in the 1930s for use as a living fence, erosion control, and even along highway medians to reduce headlight glare, thanks to its dense, thorny growth.

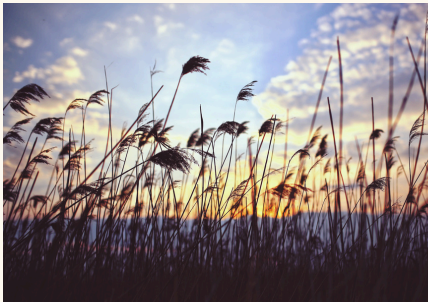
Multiflora rose thrives in a wide range of environments and spreads aggressively. It often climbs over native trees and shrubs, using them as scaffolding and ultimately smothering and killing them. On agricultural land, it invades fields and pastures, outcompeting native plants and forming dense, thorny thickets that reduce forage quality, limit grazing areas, and hinder productivity. It can also cause eye and skin irritation in cattle and other livestock. For wildlife, multiflora rose alters habitat structure, making it less suitable for ground-nesting birds and other native species.

What can you do?

Help stop the spread by learning to identify multiflora rose and educating others about its impacts. If you find it on your property, remove the entire root system to prevent regrowth. If full removal isn't possible, repeated cutting can help exhaust the plant's energy reserves and reduce its spread over time.

Learn more at: nsinvasives.ca/multiflora-rose





WHAT CAN YOU DO TO HELP STOP THE SPREAD OF INVASIVE SPECIES?

Invasive species might seem like a distant threat, but they're closer and more impactful than many realize. From forests and fields to lakes and shorelines, these unwelcome visitors disrupt ecosystems, harm native wildlife, and threaten the biodiversity that makes Nova Scotia so unique.

The good news? There are simple, everyday actions you can take to make a difference:

- **Clean, drain, and dry** your boats, gear, and equipment before moving between water bodies. It only takes a few minutes and can prevent the accidental spread of aquatic invaders.
- **Never release pets or aquarium species** into the wild. Even small animals or plants can cause big problems in our ecosystems.
- **Plant native species** in your garden or landscape. They support local pollinators, require less maintenance, and help keep invasives out.
- **Support biodiversity** by creating and preserving natural habitats wherever you can, even in your own backyard.
- **Get to know your invaders.** Learning how to identify invasive species empowers you to spot and report them early, which is key to controlling their spread.
- **Report sightings** to the [Nova Scotia Invasive Species Council](#). Every report counts!
- **Don't move firewood**, as pests like the emerald ash borer can hitch a ride. Buy it where you burn it to help protect our forests.

Small actions, taken by many, lead to big change. By staying informed and involved, you're helping to protect Nova Scotia's wild spaces for future generations to enjoy. Thank you for being part of the solution!



Invasive Species Word Search

O K B Z U U E Y S B T U E K D
 F Z G Q U E O Y E P W H M N X
 V H L L T C W Y R V E A U O I
 P H R A G M I T E S F C C T D
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YELLOW IRIS

BUCKTHORN

INVASIVE

SPECIES

PHRAGMITES

RESTORE

HOGWEED

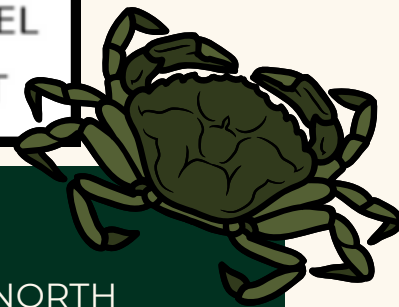
KNOTWEED

PICKEREL

PREVENT

HABITAT

REPORT



TRUE OR FALSE TRIVIA QUESTIONS:

1. THE EUROPEAN GREEN CRAB WAS INTRODUCED TO NORTH AMERICA IN THE EARLY 1800S.
2. MULTIFLORA ROSE IS ORIGINALLY FROM EUROPE
3. ONCE ZEBRA MUSSELS INVADE A LAKE, THEY CAN BE EASILY REMOVED.
4. EUROPEAN STARLINGS WERE INTRODUCED TO NORTH AMERICA AS PART OF AN EFFORT TO BRING ALL BIRDS MENTIONED IN SHAKESPEARE'S PLAYS TO THE CONTINENT.
5. RED-EARED SLIDERS HAVE BEEN INTRODUCED TO NOVA SCOTIA FROM THE PET TRADE AND OUTCOMPETE NATIVE TURTLE SPECIES, CREATING AN IMBALANCE IN THE ECOSYSTEM.



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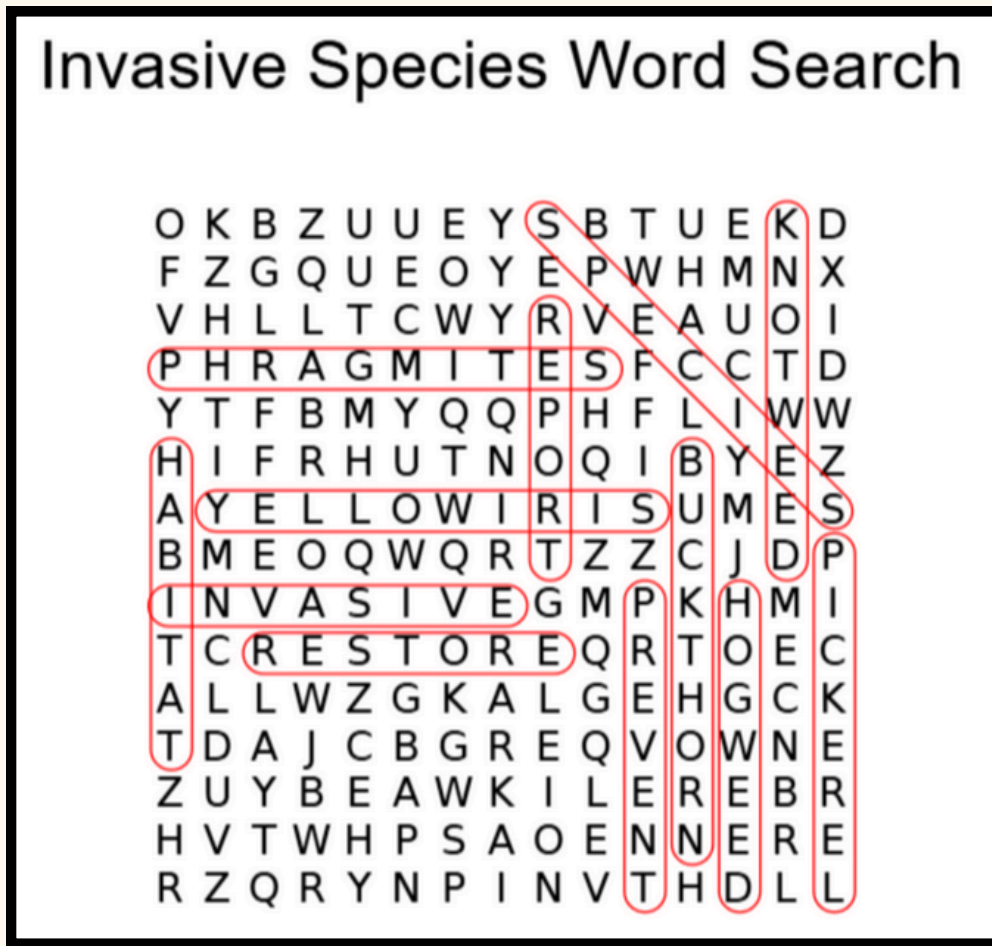
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Answers:



THE EUROPEAN GREEN CRAB WAS INTRODUCED TO NORTH AMERICA IN THE EARLY 1800s.

TRUE: IT WAS BROUGHT TO NORTH AMERICA THROUGH BALLAST WATER

MULTIFLORA ROSE IS ORIGINALLY FROM EUROPE

FALSE: IT IS NATIVE TO EAST ASIA

ONCE ZEBRA MUSSELS INVADE A LAKE, THEY CAN BE EASILY REMOVED.

FALSE: ZEBRA MUSSELS SPREAD FAST, ATTACH TO SURFACES, AND ARE NEARLY IMPOSSIBLE TO REMOVE. PREVENTION IS KEY!

EUROPEAN STARLINGS WERE INTRODUCED TO NORTH AMERICA AS PART OF AN EFFORT TO BRING ALL BIRDS MENTIONED IN SHAKESPEARE'S PLAYS TO THE CONTINENT.

TRUE: EUGENE SCHIEFFELIN RELEASED TWO BATCHES OF EUROPEAN STARLINGS INTO CENTRAL PARK IN 1890 AND 1891

RED EARED SLIDERS HAVE BEEN INTRODUCED TO NOVA SCOTIA FROM THE MISSISSIPPI RIVER AND OUTCOMPETE NATIVE TURTLE SPECIES, CREATING AN IMBALANCE IN THE ECOSYSTEM

TRUE: THEY WERE ONCE SOLD AS PETS IN NOVA SCOTIA, BUT ARE NOW ILLEGAL TO OWN WITHOUT A PERMIT