



INVASIVE SPECIES

2026 CALENDAR

Minnesota Invasive Species
Advisory Council

Advisory Council

This calendar was produced and distributed by the Minnesota Invasive Species Advisory Council (MISAC).

MISAC is a statewide entity that:

- Promotes communication and cooperation among organizations involved in invasive species issues.
- Coordinates outreach on invasive species.
- Supports statewide and multi-state conferences related to invasive species issues.
- Supports trainings and field visits related to invasive species.
- Recognizes outstanding and noteworthy work related to invasive species and encourages such work through the Carol Mortensen Award.
- Advocates for research and management for the species and pathways deemed greatest risk.

The MISAC website (mninvasives.org) provides additional information about invasive species in Minnesota. This website is a gateway to invasive species information including species profiles, contact information for experts in Minnesota and links to other related websites.

MISAC Mission Statement

To provide leadership to prevent the introduction and spread of aquatic and terrestrial invasive species and reduce their harmful impacts on Minnesota landscapes, economies and the people of Minnesota by promoting invasive species awareness, prevention and management through research, education and regulation in cooperation with local, state, tribal and federal partners.



Invasive Species Threats

Invasive species are nonnative plants, animals and pathogens that cause environmental damage, economic loss or harm to human health. Invasive species can displace native species, harm habitats and degrade natural, managed and agricultural landscapes.

In addition to harming our natural resources, invasive species can pose serious economic threats to major Minnesota industries such as agriculture, tourism and forestry. Some estimates peg the economic damage of invasive species in the U.S. at more than \$130 billion a year.

Public awareness and action are the keys to preventing the spread of invasive species. Please use the information in this calendar to help inform the public about the problems caused by invasive species and how people can take action to reduce invasive species spread and harm.

There is contact information for two agencies with invasive species responsibilities in Minnesota on the back of this calendar. These agencies, as well as other MISAC members, can provide informational products such as brochures, species identification cards and videos about invasive species.

The information contained in this document is current as of the date of publication. Because laws can change, it is important to check to see if there have been any changes or updates to applicable laws and regulations.

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888-646-6367 | 651-296-6157 | mndnr.gov

This information can be made available in alternative formats such as large print, braille or audio tape by emailing info.dnr@state.mn.us or by calling 651-259-6157.

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Report Invasive Species

One of the keys for a rapid response to invasive species is the early identification of new occurrences. Please report occurrences of invasive species in Minnesota to the following:

- Minnesota Department of Agriculture Report a Pest at: 888-545-6684 or reportapest@state.mn.us to report invasive plants, insects or diseases such as Palmer amaranth, Asian longhorn beetle, emerald ash borer, boxwood blight and sudden oak death.
- Minnesota Department of Natural Resources (DNR) Invasive Species Program at: 651-296-6157 or 888-646-6367 to report invasive aquatic plants or wild animals such as Eurasian watermilfoil, zebra mussels, invasive carp, round goby, jumping worms and mute swans.
- EDDMapS website or EDDMapS app at: EDDMapS.org
- Or, as specified for individual species in this calendar.

MISAC Members

The Minnesota Invasive Species Advisory Council includes these members: 1854 Treaty Authority, Association of Minnesota Counties, Carlton County Soil & Water Conservation District, Carver County Water Management Organization, Cass County Soil & Water Conservation District, Cook County Soil & Water Conservation District, Fond du Lac Band of Lake Superior Chippewa, Grand Portage Band of Lake Superior Chippewa, Hennepin County Public Works, Lake County Soil & Water Conservation District, Leech Lake Band of Ojibwe, Meeker County AIS, Metropolitan Mosquito Control District, Minneapolis Park and Recreation Board, Minnesota Aquatic Invasive Species Research Center, Minnesota Association of County Agricultural Inspectors, Minnesota Board of Water and

Soil Resources, Minnesota Department of Agriculture, Minnesota Department of Natural Resources, Minnesota Department of Transportation, Minnesota Invasive Terrestrial Plants and Pests Center, Minnesota Nursery and Landscape Association, The Nature Conservancy, Three Rivers Park District, University of Minnesota, University of Minnesota – Extension, University of Minnesota Sea Grant Program, U.S. Customs and Border Protection, U.S. Department of Agriculture – Animal Plant Health Inspection Service – Plant Protection and Quarantine, U.S. Department of Agriculture – Natural Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Geological Survey, U.S. National Park Service, Wild Rivers Conservancy and Wildlife Forever.





SUCCESS IN AIS PREVENTION

JANUARY

What is the situation?

People can spread aquatic invasive species (AIS) by moving boats, gear, and equipment from one waterbody to another or releasing non-native species into the environment. AIS can have harmful impacts on Minnesota waters.

What is being done?

Strategies to support AIS prevention in Minnesota include public outreach, watercraft inspection and decontamination, enforcement, and risk assessment. To support people consistently using AIS prevention behaviors, managers have focused on using consistent and simple messaging.

Evidence of success:

Prevention is more cost-effective than management, and in Minnesota, there is evidence that AIS prevention is working:

- Since 2015, watercraft inspection data indicate that most people (95% or more) are following AIS prevention laws.
- Analyses by the Minnesota Aquatic Invasive Species Research Center (MAISRC) indicate the rate of AIS spread has slowed in Minnesota over the last decade.

Partnerships among the Minnesota DNR, counties, MAISRC, federal agencies, Tribes, lake associations, advocacy groups, and people who enjoy Minnesota's water resources have contributed to this success.

How can you help?

- **Clean** watercraft, trailers, gear, and equipment to remove aquatic plants and prohibited invasive species.
- **Drain** all water and leave drain plugs out during transport.
- **Dispose** of unwanted bait in the trash.
- **Never release** bait, plants, or aquarium pets into Minnesota waters.
- **Dry** docks, lifts, and rafts for 21 days before moving them from one waterbody to another.

Further information:

- mndnr.gov/AIS

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30 	31	1 New Year's Day	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19 Martin Luther King Jr. Day	20	21	22	23	24
25	26	27	28	29	30	31

EUROPEAN HIGHBUSH CRANBERRY GENETICS RESEARCH

Viburnum opulus

Keys to ID:

- Three-lobed leaves with serrated edges.
- Showy flowers in the outer ring of the flower cluster.
- Clusters of red fruit containing single flat seed.
- European highbush cranberry has unsavory bitter fruit compared to American highbush cranberry.
- New research indicates that the shape of tiny (1-2 mm) highbush cranberry glands where the leaf stalk meets the leaf may not be reliable for distinguishing between European and American highbush cranberry.



FEBRUARY

What is it?

European highbush cranberry is a shrub with showy flowers and fruit.

What's the problem?

European highbush cranberry has naturalized throughout North America following its introduction as an ornamental plant in the early 19th century. It is extremely similar in appearance to its edible, native counterpart, the American highbush cranberry (*V. trilobum*), leading to taxonomic confusion, misidentification, and a poor understanding of the European highbush cranberry's distribution. It is commonly believed that American and European highbush cranberry readily hybridize.

Research goals:

Researchers at the University of Minnesota studied the genetics of these species to determine whether they are hybridizing or remain genetically distinct and to develop a genetic test to distinguish native versus non-native highbush cranberry.

Findings:

European and American highbush cranberry are genetically distinct and rarely hybridize despite their overlapping distributions in North America. A genetic test was developed that distinguishes American and European highbush cranberry without relying on ambiguous morphological characteristics.

Next steps:

The team plans to commercialize the genetic test and use it to verify the species of nursery stocks and to better understand the distribution of European highbush cranberry.

Acknowledgements:

The team collaborated with 70 volunteer collectors representing 50 different organizations to collect specimens from around the world. Funding was provided by: MDA Specialty Crop Block Grant FY21, University of Minnesota Technology Commercialization Early Innovation Fund, and the Minnesota Agricultural Experiment Station.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16 Presidents' Day	17	18	19	20	21
22	23	24	25	26	27	28
1	2	3	4	5	6	7



ZEBRA MUSSEL EFFECTS ON FISH MERCURY LEVELS

University of Minnesota researchers collect fish from Big Sandy Lake in Aitkin County, Minnesota.

Species:

Zebra mussel (*Dreissena polymorpha*)

What's the problem?

Recent studies comparing a set of invaded and uninvaded lakes in Minnesota have shown that zebra mussel presence is associated with higher levels of toxic methylmercury in walleye and yellow perch.

It is known that zebra mussels reduce plankton (a vital food source for fish) and increase water clarity. These changes can boost nutrients in shallow areas, increasing the number of microbes which transform inert mercury into toxic methylmercury. The plankton reductions, clearer water, and increased nutrients can lead to changes in fish growth and foraging habits, which may explain the increased mercury in walleye and yellow perch. The exact mechanism behind this effect is still unclear and is an area of future research.

Current research:

To understand if this pattern is occurring statewide, University of Minnesota researchers are using historical fish mercury data from across Minnesota to look at mercury levels before and after zebra mussel invasions, in six species of fish. The results show that mercury levels in fish have risen after zebra mussel arrival in general, but the effects vary widely between lakes. This suggests that local conditions play a significant role in how zebra mussels affect mercury levels.

Goal:

Researchers aim to understand how zebra mussels alter mercury cycling and to develop models to predict impacts on mercury pathways in fish. This will help guide safe fish consumption recommendations and reduce human exposure to mercury.

Further information:

University of Minnesota zebra mussel and fish research pages:

- maisrc.umn.edu/walleye-ais
- maisrc.umn.edu/zm-walleye
- maisrc.umn.edu/research/53

MARCH

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Funding for these projects has been provided by the Minnesota Aquatic Invasive Species Center through the Environment and Natural Resources Trust Fund, the U.S. Geological Survey in cooperation with the National Institutes for Water Resources (Project ID 2020MN105AIS), and by the University of Minnesota College of Food, Agricultural, and Natural Resource Sciences, through the Water Resources Center.



LESSER CELANDINE

Ficaria verna

Keys to ID:

- Leaves are heart-shaped with smooth, wavy edges and a rounded tip.
- Plants grow 4-12 inches tall.
- Flowers are yellow with 8-12 petals and the underside of the flower has three green sepals.
- Can form small bulbs (bulbils) between the leaf and stem.
- Native look-alike: Marsh marigold (*Caltha palustris*) grows in similar habitats, but it is taller and does not have the green sepals.

What is it?

A small, perennial plant in the buttercup family.

Impacts:

- Forms dense stands that outcompete native spring species in woodlands and stream edges.
- Contains chemicals that can be toxic to humans and livestock if consumed in large quantities.

Origin:

Europe, Asia, and northern Africa.

Status:

It is considered early detection as it has only been found in a few counties in Minnesota.

Where to look:

- Look in the spring in forested areas near water.
- It can grow in full sun to full shade.
- Flowers bloom from March to May.
- After setting seed in June, plants die back and enter dormancy until the next year.

Regulatory classification (agency):

Restricted noxious weed (MDA) meaning it is illegal to import, sell, or transport.

Means of spread:

Lesser celandine can produce seeds but mainly spreads vegetatively. It produces bulbils (small bulbs that form between the leaf and stem) and underground tubers that can break off and be spread by water.

How can people help?

- Report any new finds of lesser celandine to **EDDMapS.org** or the MDA.
- Remove lesser celandine from your property and dispose of properly.

Further information:

- mndnr.gov/invasives/terrestrialplants/lesser-celandine-invasive-species.html
- mda.state.mn.us/lesser-celandine

APRIL

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30  <small>www.mda.state.mn.us/reportapest</small>	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24 Arbor Day in Minnesota	25
26	27	28	29	30	1	2



eDNA FOR AIS DETECTION

Photo: U.S. Environmental Protection Agency

What's the problem?

Invasive species are easiest to manage at early stages of invasion, while their populations are low. Catching new populations at an early stage is important for protecting our waters. Yet finding invasive species while their population is very small is like finding a needle in a haystack. Our current methods for early detection are not always reliable and may be too costly and time consuming.

Current research efforts:

Environmental DNA (eDNA) is a new tool that can assist with early detection of invasive species. Every living organism has unique DNA. Organisms shed DNA where they live and it is dispersed through the environment. Scientists can capture this eDNA in a water sample, which can then be analyzed for species presence.

eDNA samples are easy to collect in the field and can be more accurate and sensitive than physical identification. Many invasive species have eDNA monitoring protocols, including zebra and quagga mussels, rusty crayfish, and invasive carp.

There are potential limitations to using eDNA for invasive species detection. For example, eDNA from an invasive species may be present in a sample, even if there is not a living, reproducing population in the environment.

Goal:

Current research is underway to optimize invasive species monitoring using eDNA, alongside other detection methods, so that it can be incorporated into ongoing invasive species management efforts.

Further information:

- epa.gov/national-aquatic-resource-surveys/indicators-environmental-dna

MAY

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	1 Arbor Month in Minnesota Begins	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	Memorial Day					



TOMATO BROWN RUGOSE FRUIT VIRUS

Keys to ID:

- Young leaves display a mosaic pattern of different shades of green.
- Fruit with the disease ripens unevenly with blotches of green, orange, and yellow.
- Identification can only be confirmed with a lab test.

JUNE

What is it?

Tomato Brown Rugose Fruit Virus (ToBRFV) is a plant virus that affects tomatoes and peppers.

Impacts:

ToBRFV spreads rapidly in greenhouse-grown tomatoes and peppers. A few infected plants can lead to widespread disease within a few months. Infected plants produce unmarketable fruit with blotchy discoloration and patches of rough (rugose) brown skin, giving the virus its name.

Origin:

Origin unknown. First reported in Jordan and Israel.

Status:

ToBRFV was identified at a few sites in Minnesota in 2023 and 2024. All infected plants were destroyed and the appropriate steps to eradicate the virus from the site were taken.

Where to look:

ToBRFV is of most concern in large tomato production greenhouses and facilities. Home gardeners may also see ToBRFV on their tomatoes.

Regulatory classification (agency):

ToBRFV is federally regulated in seed and transplants (U.S. Department of Agriculture) and is regulated by the state (MDA) in fruit production.

Means of spread:

ToBRFV moves into new areas on infected seed or transplants. It spreads from plant to plant and on hands and tools.

How can people help?

- Do not save seed from grocery store produce to plant in the garden as it may harbor diseases.
- Buy tomato and pepper seed from a reputable seed company or save seed from locally grown healthy plants.

Further information:

- <https://www.mda.state.mn.us/plants/plantdiseases/ToBRFV>

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19 Juneteenth National Independence Day	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4



Flowering rush

FLOWERING RUSH BIOCONTROL

What is biocontrol?

Classical biological control is the intentional use of organisms from the target pest's native range to help control it in its newly invaded areas. For plants, these co-evolved organisms may be insects or diseases that reduce the invasive plant's health and decrease seed set. Biocontrol agents are extensively studied and vetted before being permitted for release.

Bagous nodulosus, weevil biocontrol agent

JULY

Target:

Flowering rush (*Butomus umbellatus*) is an invasive aquatic/wetland plant that is challenging to manage with mechanical and chemical means. It is a perennial species that is emergent on land and in shallow water but has a submergent version in deeper waters (up to 6 feet deep). Flowering rush is an ecosystem engineer, changing habitat conditions, outcompeting native aquatic plant species, and impeding boating, swimming, and other lake activities.

Biocontrol species:

Researchers have been assessing potential biocontrol agents since 2013, testing for host-specificity and possible impacts to North American native species. One weevil (*Bagous nodulosus*) was recently approved as a biocontrol agent for flowering rush and two other natural enemies are being researched as possible biocontrol agents – a white smut (*Doassansia niesslii*) and a leaf mining fly (*Phytoliriomyza ornata*).

Origin:

Flowering rush and its natural enemies are native to Eurasia.

Status:

The weevil *Bagous nodulosus* was approved for release in Canada in 2022 and in the U.S. in 2024. Rearing and implementation is planned for Washington and Montana in the next few years. The white smut and leaf mining fly are still under study. Both insect species target flowering rush emergent leaves and are unable to manage fully submerged populations. The white smut can infect submerged plants. All three organisms could be important tools for flowering rush management.

Further information:

- mndnr.gov/invasives/terrestrialplants/herbaceous/floweringrush.html
- bugwoodcloud.org/resource/files/33594.pdf

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	1	2	3	4 Independence Day
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1



STILTGRASS

Microstegium vimineum

Keys to ID:

- Leaves are alternate, tapered at both ends, with a silvery mid-vein that is slightly off-center.
- Shallow, trailing root system with stilt-like roots.
- Flowers in September and October.
- Leaves and stems turn purple in the fall.
- Whitegrass or Virginia cutgrass (*Leersia virginica*) is a native grass that often grows with stiltgrass. Whitegrass lacks the silvery mid-vein on the leaf, flowers in August, has hairy leaf nodes, and is rough to the touch.

Stiltgrass mounds under loblolly pine in Shawnee National Forest, Illinois.

AUGUST

What is it?

Stiltgrass is an annual C4 grass (warm-season).

Impacts:

- Forms dense stands and reduces habitat for native plants.
- Reduces native tree seedling regeneration through competition.
- May alter fire behavior in fire-dependent systems.

Origin:

Southeast Asia.

Status:

Stiltgrass has not been found in Minnesota as of mid-2025, but has been found in La Crosse County, Wisconsin.

Where to look:

Disturbed areas such as old fields and along roads and streams, riparian areas, interior forests, moderately moist woodlands and uplands, oak-hickory forests, wet grasslands, and river bluffs.

Regulatory classification (agency):

Stiltgrass became a *prohibited eradicate noxious weed* (MDA) in January 2026. This means that the above and below ground parts of the plant must be destroyed and that transportation, propagation, and sale is prohibited.

Means of spread:

Spreads primarily by seed, which is transported readily by people on their footwear, ATVs, mountain bikes, etc. Seeds can also be spread by moving water. Stiltgrass can produce up to 1,000 seeds per plant that are viable in the soil for three to five years.

How can people help:

- Remove mud from boots and recreational equipment.
- Report sightings on [EDDMapS.org](https://www.eddmap.org).

Further information:

- mndnr.gov/invasives/terrestrialplants/stiltgrass.html
- extension.illinois.edu/invasives/invasive-stiltgrass

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27  WORK.CLEAN.GO. PlayCleanGo.org	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



Non-native *Phragmites*

WATERFOWL HUNTING BLINDS PATHWAY

SEPTEMBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	31	1	2	3	4	5
6	7 Labor Day	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3

What's the problem?

The use of vegetation when building waterfowl blinds can create effective camouflage, but be alert to avoid the use of invasive species like non-native *Phragmites* when building a blind. Disturbance of *Phragmites* can lead to seeds, stem fragments, and stolons (horizontal stems or runners) spreading to new locations and forming new populations.

Example species:

Invasive *Phragmites* (*Phragmites australis* subsp. *australis*)

Impacts:

Invasive *Phragmites* creates dense stands up to 18 feet tall that outcompete native vegetation, reduce habitat quality and access for recreationists, and alter wetland hydrology.

Status:

In Minnesota, invasive *Phragmites* has been documented in 53 counties as of 2025. In 2019, a statewide coordinated control program launched to slow and reverse the spread within the state.

Where to look:

It can be found in wetlands, shorelines, riparian areas, and other wet areas such as roadside ditches and stormwater ponds.

Regulatory classification (agency):

Invasive *Phragmites* is a *prohibited noxious weed* (MDA) and a *prohibited invasive species* (DNR) in Minnesota. Transportation is not allowed and management is required.

How can people help:

- Clean boats and equipment to remove vegetation and seeds before transporting to a new location.
- Avoid utilizing or cutting down *Phragmites* to conceal hunting blinds and equipment.
- Report invasive *Phragmites* to [EDDMapS.org](https://www.eddmap.org).
- Contact phragmites@umn.edu for technical assistance with controlling invasive *Phragmites*.

Further information:

- maisrc.umn.edu/phragmites



WHITE PINE BLISTER RUST

Cronartium ribicola

Keys to ID:

- Infected branches have yellowed needles and wilt.
- Cankers on small branches appear swollen with cracked, roughened bark.
- Cankers on larger branches or the main stem often form sunken or depressed areas in the bark.
- Cankers may exude copious resin that hardens and forms a white, paint-like coating on the stem.
- Dusty, yellow-orange fungal fruiting structures resembling blisters appear on canker edges during early spring.

OCTOBER

What is it?

White pine blister rust is a non-native fungal disease that infects and kills five-needle pines, such as eastern white pine (*Pinus strobus*) which is native to Minnesota. White pine blister rust has a complex life cycle requiring pines as well as plants in the genus *Ribes* (currants and gooseberries) to complete development.

Impacts:

White pine blister rust gains entry into a white pine when fungal spores land on and infect needles. Once inside, the fungus grows from the needles into branch bark. It is capable of killing its host tree if it spreads into and girdles the main stem.

Origin:

China and east Asia.

Status:

It is common throughout the range of eastern white pine in Minnesota.

Where to look?

White pine blister rust frequently infects branches in the lower 10 feet of a tree, although infections can occur throughout the canopy.

Regulatory classification (agency):

It is not a regulated species in Minnesota.

Means of spread:

White pine blister rust spreads from *Ribes* plants to pine hosts via wind-borne spores.

How can people help?

- Proactively removing the lower third of the canopy on young trees can reduce the likelihood of infection.
- In some cases, white pine blister rust can be removed from an infected tree by pruning. Only prune infected branches if the edge of the infection is more than 4 inches away from the main stem of the tree and always adhere to proper pruning guidelines.

Further information

- mndnr.gov/treecare/forest_health/white-pine-blister-rust/index.html

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27	28	29	30	1	2	3
4	5 	6 2026 Upper Midwest Invasive Species Conference October 5-8 La Crosse, Wisconsin and online	7	8	9	10
11	12 Columbus Day/ Indigenous Peoples' Day	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31



Northern snakehead

NORTHERN SNAKEHEAD

Channa argus

Keys to ID:

- Both dorsal fin and anal fin are elongated.
- Has scales on top of head.
- Pelvic fins are just behind pectoral fins.
- Skin has distinct light and dark spots and stripes.



U.S. Fish and Wildlife Service biologists electrofish for northern snakehead.

What is it?

Northern snakeheads are long-bodied fish that can grow to nearly 3 feet. They can breathe air and survive out of the water for four days.

Impacts:

May out-compete native fish species and disrupt food webs. Competition with largemouth bass is of concern due to a high level of diet overlap.

Origin:

China, Russia, and Korea.

Status:

Northern snakehead has not been reported in Minnesota as of mid-2025. It is established in Arkansas and in the Northeastern U.S. Individuals were reported in Chicago and Missouri, but there is no evidence for reproducing populations.

Where to look:

Preferred habitats include shallow, stagnant waters such as ponds, swamps, and slow streams. They have also been found in lakes and rivers.

Regulatory classification (agency):

Prohibited invasive species (DNR). Possession, importation, purchase, transport, and introduction are not allowed. Also federally listed as injurious wildlife and banned from import.

Means of spread:

Likely introduced via release from aquariums and intentional or unintentional release of live food fish.

How can people help?

- If you see a northern snakehead in an aquarium or market, report it to the DNR.
- Do not release animals into any waterbodies.
- Find appropriate homes for unwanted pets or animals from live food markets that you wish to keep alive. See mndnr.gov/invasives/aquarium-owners.html for more guidance on responsible aquarium ownership.

Further information:

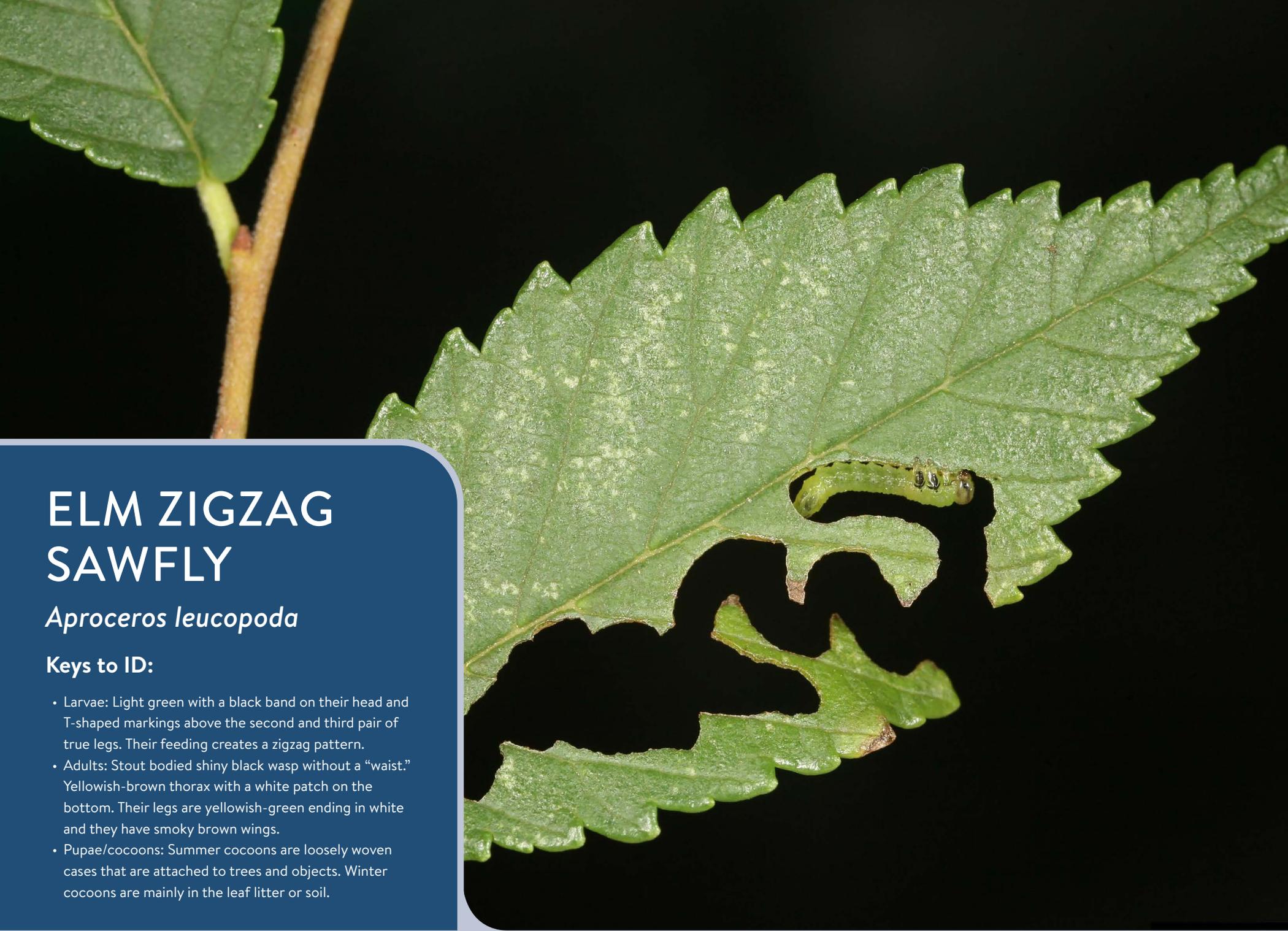
- nas.er.usgs.gov/queries/factsheet.aspx?speciesid=2265

NOVEMBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11 Veterans Day	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26 Thanksgiving	27	28
29	30	1	2 	3	4	5

Habitattitude
PROTECT OUR ENVIRONMENT
DO NOT RELEASE FISH AND AQUATIC PLANTS


www.Habitattitude.net



ELM ZIGZAG SAWFLY

Aproceros leucopoda

Keys to ID:

- Larvae: Light green with a black band on their head and T-shaped markings above the second and third pair of true legs. Their feeding creates a zigzag pattern.
- Adults: Stout bodied shiny black wasp without a “waist.” Yellowish-brown thorax with a white patch on the bottom. Their legs are yellowish-green ending in white and they have smoky brown wings.
- Pupae/cocoons: Summer cocoons are loosely woven cases that are attached to trees and objects. Winter cocoons are mainly in the leaf litter or soil.

DECEMBER

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29	30  <small>www.mda.state.mn.us/reportapest</small>	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1 Christmas Day	2

What is it?

A stout bodied non-stinging wasp that feeds exclusively on species of elm trees.

Impacts:

Elm zigzag sawflies have multiple generations per year. Feeding damage caused by the larvae can range from minor leaf damage to complete defoliation. Like other defoliators, repeated severe damage can weaken tree health and lead to branch dieback.

Long term impacts to forest health are currently unknown. Elm zigzag sawflies can also be a nuisance to homeowners if the larvae attach cocoons onto objects such as outdoor furniture or vehicles.

Origin:

Native to parts of East Asia.

Status:

First reported in North America in 2020 and as of mid-2025 had been found in 13 states. Elm zigzag sawfly was found in Minnesota and Wisconsin in the summer of 2024.

Where to look:

Look for the characteristic zigzag feeding pattern caused by the larvae on elm leaves in early to mid-summer.

Regulatory classification (agency):

Elm zigzag sawfly is currently not regulated in Minnesota.

Means of spread:

Adult elm zigzag sawflies are capable of long-distance dispersal of 28-56 miles per year. Cocoons can also be spread by humans when attached to vehicles or other objects.

How can people help?

- If you think you have found elm zigzag sawfly please report it at mda.state.mn.us/reportapest or EDDMapS.org.

Further information:

- mda.state.mn.us/plants-insects/elm-zigzag-sawfly



For more information about invasive species in Minnesota

Aquatic Plants and Animals
Minnesota Department of Natural Resources
Invasive Species Program
651-296-6157

Terrestrial Plants and Insects
Minnesota Department of Agriculture
Invasive Species Program
888-545-6684

