



2019 Fall Partner Meeting

*Protecting, enhancing, and promoting
northwest Michigan's natural communities
through terrestrial invasive plant
management and outreach.*

HabitatMatters.org



ISN's History

- Founded 2005
 - NW MI CWMA
- GT Regional ISN: 2010
- Merged 2012!



**Leelanau County Private Property
Before and after, 2014 to 2019**

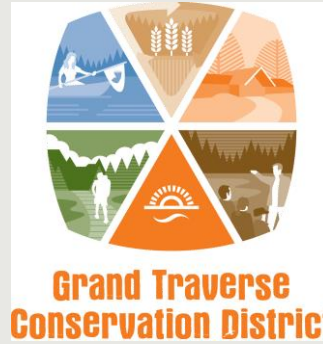




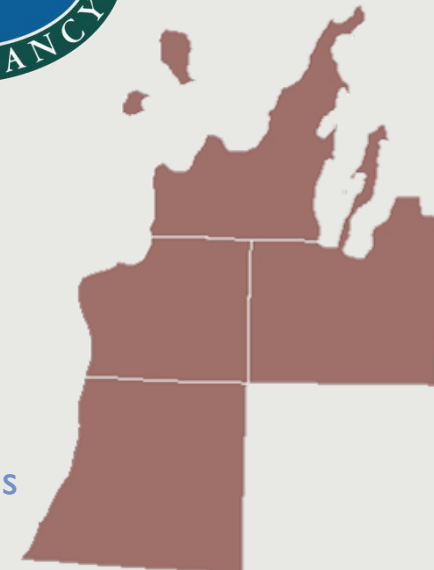
**NORTHWEST MICHIGAN
INVASIVE SPECIES NETWORK**

Funding provided by:
Michigan Invasive Species Grant Program
Great Lakes Restoration Initiative

Major Partners



- Garfield Township
- City of Frankfort
- Benzie Long Lake Association
- Portage Lake Watershed Forever
- Neatawantah
- The Nature Conservancy
- Sleeping Bear Dunes National Lakeshore
- Grand Traverse Band of Ottawa and Chippewa Indians
- Michigan Audubon
- Little Traverse Bay Band of Odawa Indians



Mission

Protecting, enhancing, and promoting northwest Michigan's natural communities through terrestrial invasive plant management and outreach.

Serving Benzie, Grand Traverse, Leelanau, and Manistee counties

ISN Goals

- 1) Raise awareness of high-priority invasive species in the region through education in order to cultivate long-term stewardship of our natural areas
- 2) Prevent introduction and spread of terrestrial invasive plants through outreach and collaboration with government officials and garden professionals
- 3) Survey region for high-priority terrestrial invasive plants to aid in effective prioritization and treatment strategies
- 4) Facilitate and assist with treatment of high-priority species on public and private land based on survey maps and prioritization strategies

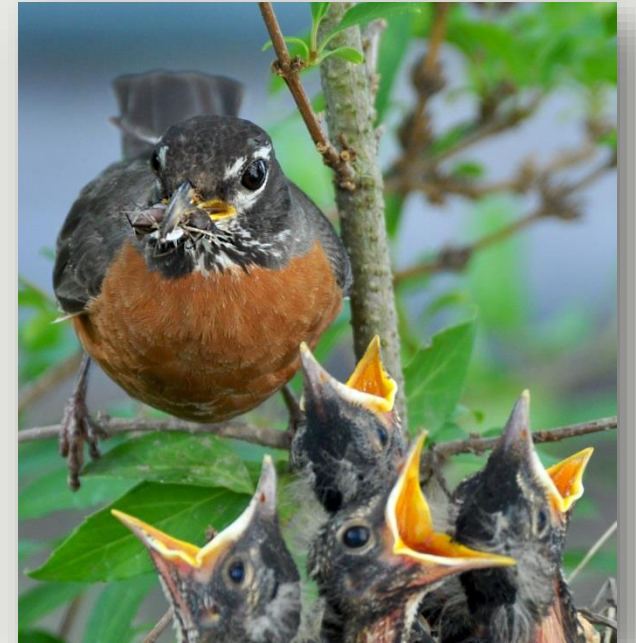
Habitat Matters



For People



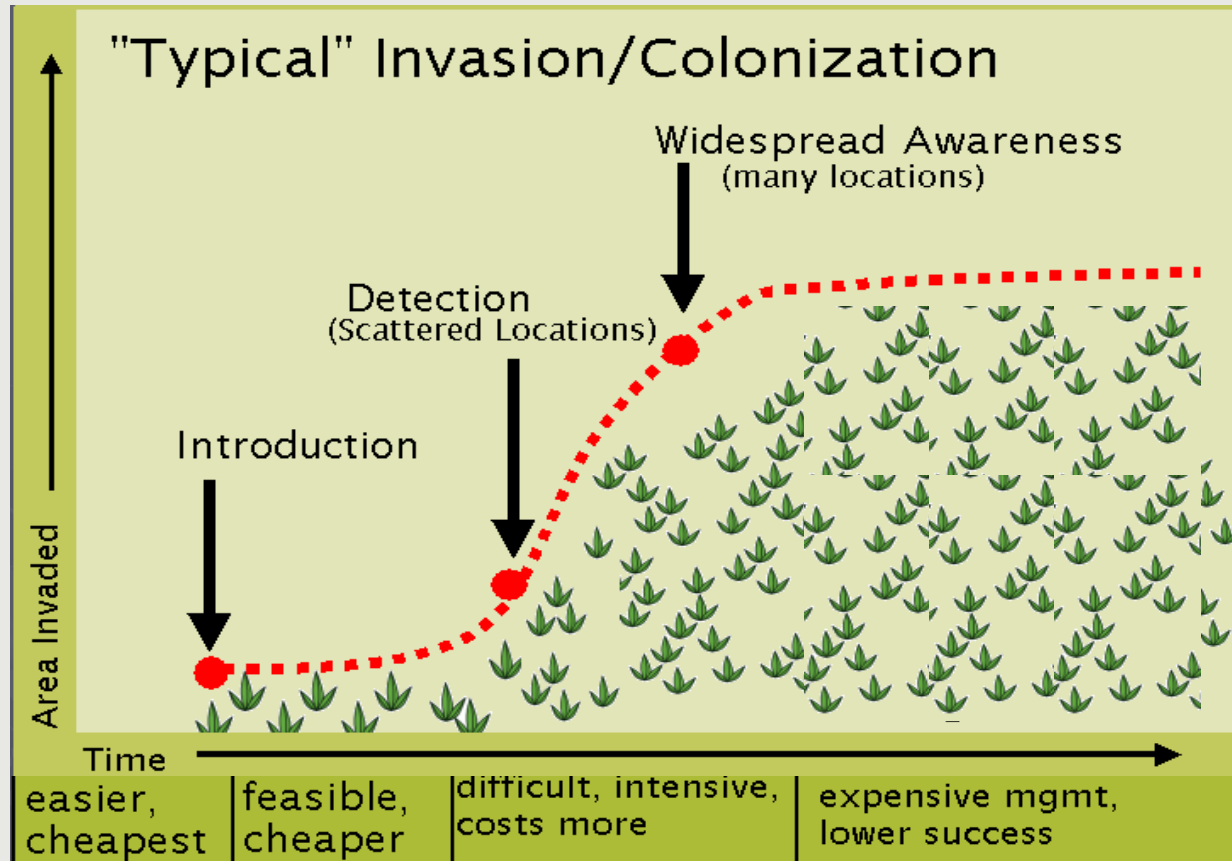
For Northwest Michigan



For Wildlife

What's Invasive?

Formal definition – a non-native species that harms people, the environment, or the economy.



Source: Michigan Natural Features Inventory



Environmental harm – a natural area consisting mostly of one or a combination of introduced plants that provide minimal habitat value.

Top 20 Least Wanted Species

- Develop
- List
- The top 20 still sold for landscape

TOP 20 LEAST WANTED

HERBACEOUS PLANTS

1. Common buckthorn
2. Glossy buckthorn (*Fraxinus*)
3. Honeysuckle(s)
Lonicera spp. (can also be a vine)
4. Japanese barberry
Berberis thunbergii
5. Russian olive (*Elaeagnus angustifolia*)
autumn olive (*Elaeagnus umbellata*)
6. [Image]
7. baby's breath (*Gypsophila*)
8. bull thistle (*Cirsium vulgare*)
9. Canada thistle (*Cirsium arvense*)
10. dame's [Image]
11. Europe [Image]
12. [Image]
13. Japanese [Image]
14. leafy spurge [Image]
15. [Image]
16. [Image]
17. [Image]
18. [Image]
19. [Image]
20. [Image]

Additional text at the bottom of the slide includes: phragmites, p. [unclear], and parsnip.

Current Programs

- *Go Beyond Beauty*—a voluntary program to remove invasive ornamentals from local nurseries' and landscapers' inventories
- *Workbees*—focused on garlic mustard, baby's breath, shrubs
- *Outreach*—presentations
 - Value of habitat, threat of invasives
 - Local governments, garden clubs, Road Commissions, sportsmen's clubs, schools, etc.
- *Survey & Control*—high-priority species in high-quality habitats
 - Japanese knotweed, Oriental bittersweet, garlic mustard, invasive Phragmites
 - Ornamental invasives
 - Early Detection species

SOUTHERN BLUE FLAG IRIS
(Iris virginica)

NORTHWEST MICHIGAN INVASIVE SPECIES NETWORK
Protecting, enhancing, and promoting Northwest Michigan's natural communities through terrestrial invasive plant management and outreach.



Key Features:

- Mass Effect**
Although dramatic in the landscape, may be challenging to maintain optimum wet conditions.
- Foliage**
Sword-like leaves add kinetic interest. Iris is used to make dyes and perfumes.
- Visitors to Explore**
Hosts the caterpillar of this agreeable tiger moth, as well as those of the beautiful Virginia ctenucha moth.

Is southern blue flag iris right for your garden?

1-3 ft tall
1-3 ft wide
June

To learn more about how you can help protect our wild places, visit HabitatMatters.org



PLAN BEFORE YOU PLANT:
Native Alternatives to Invasive Ornamentals

Northwest Michigan Invasive Species Network

Steering Committee Updates





Outreach and Community Events Update

2019 Outreach Efforts and Coming up

- Garlic mustard workbees
- Baby's breath workbees
- Public presentations/ISN booth at events
- Go Beyond Beauty trainings/site visits
- Autumn Olive Workshops
- New resources created
 - Seed libraries
 - Door hangers
 - Future resources



Up next: Treatment videos, ID guide revamp, event plan for 2020



2020 Events

- Garlic mustard
- Baby's breath
- Japanese barberry trade-up
- Autumn olive
- **What else can ISN provide to community/partners?**

Boothbrush Stations

- Sign, station, brush, lumber, \$100 cost-share (\$300 value)
 - Space on sign for logo sticker
 - Need landscape fabric, gravel, concrete, installation
- Upgrade or mini-station: scrub brush, cable, & keeper (\$20)
 - Play Clean Go has smaller signs



Go Beyond Beauty

- Spring Meeting was held April 3rd – presentation by Carolyn Thayer
- 2019 Japanese Barberry Trade-up Days
 - Grand Traverse and Benzie counties
 - **150+ plants returned**
 - Different county next year
- Achievement program introduced and now available to participants
 - Fee-based tiers
 - Program is still free at a basic level
 - **OLD MISSION ASSOCIATES – Gold Level Achievement**



What's next?



Go Beyond Beauty - Achievement Program

BUSINESS OPTIONS - For nurseries and landscapers

*Free participation remains an option

Silver Achievement

- Participate in half-day, Basic Invasive Species Employee Training
 - Can be held at business location OR Boardman River Nature Center (BRNC)
 - Single cost, regardless of number of employees
 - \$150.00 per business, when held at BRNC
 - \$300.00 per business, when held at your location
 - Fees are annual
- Receives "silver recognition" on outreach materials
- Signs include "silver achievement" label

Gold Achievement

- Participate in full-day, Intensive Invasive Species Employee Training
 - Can be held at business location OR Boardman River Nature Center (BRNC)
 - Single cost, regardless of number of employees
 - \$200.00 per business, when held at BRNC
 - \$400.00 per business, when held at your location
 - Fees are annual
- Receives "gold recognition" on outreach materials
- Signs include "gold achievement" label

Sustaining Go Beyond Beauty Achievement

- Cost: \$200.00, annually
- ISN assures, and promotes accordingly, that your business does not sell/use invasive species via an annual site visit or audit, depending on business type
- Additional recognition will be placed on signage and outreach materials for businesses that choose to participate at this level

OTHER PARTICIPANTS

(Homeowner, garden club, other business, etc.)

*Free participation remains an option

Silver Achievement

- Cost: \$50.00/one time
- Receive a site-visit from an ISN employee to determine invasive species on site
 - Approximately 30 minutes
- Receive a one-page explanation of plant species identified as well as recommended management
- Signs will include "silver achievement" label
- Additional website recognition and free outreach materials

Gold Achievement

- Cost: \$100.00/one time
- Receive a site-visit from an ISN employee to determine invasive species on site
 - Approximately 45 minutes
- Receive a 2+ page explanation of plant species identified, management suggestions, AND native planting recommendations based on site conditions
- Signs will include "gold achievement" label
- Additional website recognition and free outreach materials

Champions of Go Beyond Beauty

- Businesses and individuals that commit to not selling and using invasive species beyond those on the high-priority list (2nd tier) will receive additional recognition. You will be listed separately in publicity and have your own "shout-out" slide during public presentations.



For more information:
www.HabitatMatters.org



GO BEYOND BEAUTY



NORTHWEST MICHIGAN
INVASIVE SPECIES NETWORK
HabitatMatters.org

GO BEYOND BEAUTY – PARTICIPATING NURSERIES

Many invasive plants arrive in our area by way of gardens.

Go Beyond Beauty by purchasing from nurseries that have committed not to use or sell high-threat invasive plants, such as the following:

Cyman Gardens

(231) 533-8960 | cymangardens.com
Antrim County

Birdsfoot Native Nursery

(231) 313-6749
Grand Traverse County

Garden Goods

(231) 933-4769 | gardengoodstc.com
Grand Traverse County

Green Lake Gardens & Goods

(231) 276-6775
Grand Traverse County

Greystone Gardens

(231) 326-5855
Benzie County

Misty Ridge Greenhouse

(231) 885-2290
Wexford County/regional farmers markets

Northwoods Nursery

(231) 946-7378
Grand Traverse County

Pine Hill

(231) 941-1808 | pinehill-nursery.com
Grand Traverse and Antrim Counties

KEY:  20+ NATIVE PLANTS AVAILABLE

GO BEYOND BEAUTY



NORTHWEST MICHIGAN
INVASIVE SPECIES NETWORK
HabitatMatters.org

Many invasive plants arrive in our area by way of gardens.
Go Beyond Beauty by hiring landscapers that have committed not to use
or sell high-threat invasive plants, such as the following:

Benzie

Designs in Bloom  
(231) 352-6962 | designsinbloom.biz

Grand Traverse Organic Landscapes 
(231) 938-2626 | gtorganiclandscapes.com

Heritage Landscape Design
(231) 492-4128 | heritagelandscapedesigntc.com

Inhabitect, LLC 
(231) 943-1434 | www.inhabitect.com

The Mossy Tree, LLC 
(231) 499-5369 | mossytreegardens.com

Northwoods Landscaping
(231) 946-7378

Old Mission Associates 
(231) 223-9222 | oldmissionlandscapes.com

Silverman & Company
(231) 932-1925 | michiganlandscapearchitect.com

Grand Traverse

Leelanau

Sustainable Landscape Design, LLC
(231) 735-6972 | sustainable-landscape-design.com

Wildlife & Wetland Solutions 
(231) 360-1203 | wildlifewetlands.com

Cre Woodard Garden Design 
(231) 735-5300 | crewoodard.com

Laurel Voran, LLC 
(231) 632-3211

TruNorth Landscaping  
(231) 922-0087 | trunorthlandscaping.com

Cyman Gardens
(231) 533-8960 | cymangardens.com

Pine Hill Landscaping
(231) 941-1808 | pinehill-nursery.com

Antrim

KEY:  MICHIGAN NATURAL
SHORELINE PARTNER

 CERTIFIED GREEN
INDUSTRY PROFESSIONAL

Field Season 2019!

- Over 250 sites treated
- 13 different species treated
- Over 1,000 acres total treated in service counties (manual and chemical)- ISN Crew, Workbees, and Contractors
- Only got rained out like...twice?
- Tried something new this year....PLANTING TREES
 - ISN Crew planted around 320 trees at Killingsworth Park!
- “Discovered” three new species
 - Chinese yam (Kingsley)
 - Japanese hedge parsley (Manistee)
 - Common Teasel (Traverse City)

Guest appearance by Sam Griffin of GTRLC fame!



Restoration for 2019

Planted Over 1,200 Seedlings Across ISN Service Area

- Areas of previous treatment OR areas at high risk of invasion a “plus”
 - Generally high-quality sites that just need “help”
- Provided Seedlings to Multiple Partner Projects:
 - Conservation Resource Alliance & SEEDS
 - Eastbay Township Parks & Rec
 - Filer Township Parks & Rec
 - Grand Traverse Regional Land Conservancy
 - GTCD Parklands & BRNC
 - Leelanau Conservation District

Species List:

Black Cherry	Red-osier Dogwood
Nannyberry	White Cedar
Ninebark	White Oak
Red Pine	White Spruce



Tree planting at Arcadia Marsh- Birthday Party?



Tree planting Work Bee at Magoon Creek

Restoration for 2019

Planted Over 1,200 Seedlings Across ISN Service Area

- Areas of previous treatment OR areas at high risk of invasion a “plus”
 - Generally high-quality sites that just need “help”
- Provided Seedlings to Multiple Partner Projects:
 - Conservation Resource Alliance & SEEDS
 - Eastbay Township Parks & Rec
 - Filer Township Parks & Rec
 - Grand Traverse Regional Land Conservancy
 - GTCD Parklands & BRNC
 - Leelanau Conservation District

Species List:

Black Cherry	Red-osier Dogwood
Nannyberry	White Cedar
Ninebark	White Oak
Red Pine	White Spruce



Tree planting at Arcadia Marsh- Birthday Party?



Tree planting Work Bee at Magoon Creek



HWA Updates

- Previous season (Jan. 2019-Apr. 2019)
 - 124 sites surveyed
 - Mostly public properties
 - 6,148.5 acres surveyed
- This season! (Jan. 2020-Apr. 2020)
 - Focusing on private properties
 - Made contact with 27 private property owners so far!
 - Google survey request form
 - Link on website
 - Some focus on high priority public property

(Disclaimer: I didn't make this smiley face! Nature did!!)



Break!

15 minutes



**FUN ACTIVITY
TIME!**

Get in small groups!

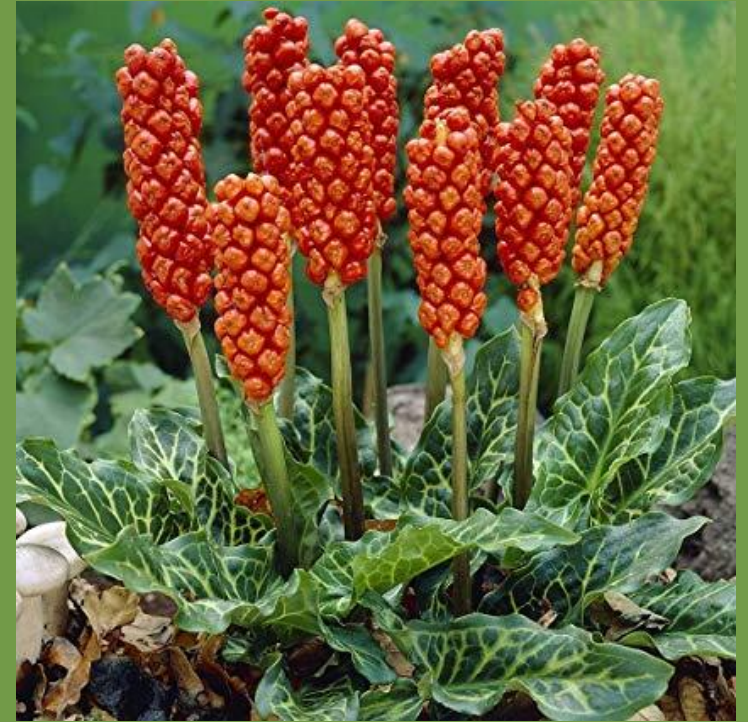


Tree-of-heaven

(*Ailanthus altissima*)



Chinese Yam
(*Dioscorea polystachya*)



Italian arum
(*Arum italicum*)



Common barberry
(*Berberis vulgaris*)



Hardy kiwi
(*Actinidia arguta*)



Photo Credit: Missouri Botanical Garden



Marlin



Amur cork tree

(Phellodendron amurense)



Sapphire berry
(*Symplocos paniculata*)



Chinese silver grass

(*Miscanthus sinensis*)



Japanese hedge-parsley

(*Torilis japonica*)



Common teasel

(*Dipsacus fullonum*)



Callery pear/Bradford pear
(*Pyrus calleryana*)

A dark, irregular ink blot with splatters on a white background. The blot is roughly circular with jagged edges and contains several smaller, lighter-colored splatters. The text is centered within the blot.

**Back to the
Boring Stuff!**



Mobile Data Collection

MISIN

www.misin.msu.edu

- Data Submission
 - Web
 - App (Apple & Android)
- Identification resources
 - I pg (Species Information)
 - Training modules (Tools>>Training Modules)
- Treatment Tracking

Resources Reminder

- Printed resources in back!
- HabitatMatters.org/other-information
 - Decontamination Protocols
 - Planting Guides (municipalities)
 - Print & Online resource lists
- MISC Forum (forum.michiganinvasives.org/)



HOME ABOUT IDENTIFY AND REPORT RESOURCES HABITAT MATTERS GO BEYOND BEAUTY SEARCH

Education
Tool Library
Planting Guide/Ordinance Templates
Treatment Information
Other Information

Native Plant Seeds
Invasive Species in the News

Other Information: Online and Printed Resources

Online Resources

While far from exhaustive, this list includes resources ISN utilizes regularly.

Invasive Plant Resources

- [Michigan DNR/DEQ/MDARD invasives website](#)
- Decontamination guidelines & checklist from the Michigan DNR Forest Resources Division: [Aquatic](#) and [Terrestrial](#)
- [USDA invasives website](#)
- [Midwest Invasive Plant Network](#) (including a Landscape Alternatives to Invasive Plants app and other tools)
- [Suggested Alternatives to Invasive Plants](#) from the Georgia Exotic Pest Plant Council--a bit south, but a great resource!
- [Aquatic Invasive Plants and Their Look-Alikes](#) PDF from the Midwest Invasive Plant Network
- [Midwest Invasive Plant Network Control Database](#)
- [West Michigan Hemlock Woolly Adelgid Taskforce](#) (SaveMIHemlocks) user-friendly information about this early detection invader

Native Plant Resources

MISIN
Midwest Invasive Species Information Network

MInvasives
Join Michigan's Invasive Species Community

MIPN.org
Midwest Invasive Plant Network

Grants Update

Current Grants

Fully funded through October 2020

- GTBOI Subgrant
 - Funds staff time, treatments
 - Almost done!
- USFS CWMA 2019
 - Staff time, treatments
 - Kicking in now!
- MISGP 2018 CISMA
 - Basic functions
- MISGP 2018 Project
 - 2020 Crew
 - Treatments, outreach, “leadership in IS work”
- Gerstacker 2018
 - Education integration efforts with GTCD
 - Wrapping up
- TNC HWA subgrant
 - ½ done! HWA survey



Upcoming Grants

- MISGP 2019 (submitted x3! Hear back in January)
 - Partners also applied
- USFS CWMA 2020 (expected RFP December)
- Good Neighbor Authority funding (DNR/USFS)—in process?
- Others?



Strategic Plan

- Approved 2018!
 - On website
- Living document
 - Steering Committee will revisit & fine-tune one section per meeting
 - Updated on website annually
- Full update in 5 years



Species Prioritization: Revamp!

Process

- 2010→2020; it's time to update!
- Species Assessments
- Focus Group work
- Fall Partner Meeting feedback
- Final Steering Committee Approval
- Roll out in 2020!

Goals

- Update
- More user-friendly for the public
- Incorporation of habitats?

MICHIGAN INVASIVE NETWORK

TOP 20 LEAST WANTED

SHRUBS:

- 1. (Rhamnus cothartica)
- 2. (Frangula alnus)
- 3. also be a vine
- 4. honeysuckle
- 5. Russian olive (*Elaeagnus angustifolia*)
- 6. autumn olive (*Elaeagnus umbellata*)

HERBACEOUS PLANTS:

- 7. baby's breath (*Gypsophila paniculata*)
- 8. bull thistle (*Cirsium vulgare*)
- 9. Canada thistle (*Cirsium arvense*)
- 10. dame's rocket (*Hebe*)
- 11. European swa
- 12.
- 13. Japanese knotweed (*Polygonum cuspidatum*)
- 14. leafy spurge (*Euphorbia esula*)
- 15. lyme grass (*Leymus arenarius*)
- 16. narrow-leaved cattail (*Typha*)
- 17. phragmites (*Phragmites australis*)
- 18. purple loosestrife (*Lythrum*)
- 19. reed canary grass (*Phalaris*)
- 20. wild parsnip (*Pastinaca sativa*)

Wanted for northwestern lower Michigan based on their collective experience...

Top 20 represent the greatest invasive plant threats to the region, the managers...

generations to enjoy. Invasive species which did not make the Top...

IN Michigan. Please report ALL sightings to <http://www.michigan.gov/invasive>

Top 20... visit <http://www.michigan.gov/invasive>

Website and Resource Creation

- Website will have landing pages for each list of prioritized species
 - Top 12
 - EDR
 - Awareness Species
 - Ornamental (GBB)
- Resource pages will be stand-alone AND combined
 - T12 included with each additional list (EDR, Awareness)
- What format(s) would be most useful to partners?

The screenshot shows a website header with navigation links: HOME, ABOUT, IDENTIFY AND REPORT, RESOURCES, HABITAT MATTERS, GO BEYOND BEAUTY, and a search icon. The main content area has a green header for 'TOP 12 INVASIVE SPECIES'. Below this is a paragraph explaining that the list prioritizes species based on habitat impact and management feasibility, using examples like 'invasive phragmites' and 'autumn olive'. A note states that species with asterisks are illegal to move, trade, sell, or share in Michigan. A disclaimer at the bottom notes that photos are pulled from various sources including MISIN, Bugwood, and various land managers. On the right side, there are buttons for 'Other Invasive Species Lists:' including 'Early Detection and Response (EDR)', 'Ornamental Species', and 'Awareness Species - complete list'. Below these are links for 'Awareness species by habitat type:' such as 'Forest (and forest pests)', 'Wetland/Riparian (and aquatic invasives)', 'Dune/Shoreline', and 'Field'. A 'Print a PDF version of this list' button is also present.





Species Prioritization Revamp DISCUSSION



NAISMA Notes:

Effects of Glyphosates

(As talked about by Dan Wixted [Cornell Pesticide Mgmt Education Prgm] with assistance of IARC, and Dr. Anthony Hay [Cornell Dept of Microbiology])



Hazard vs Risk

Hazard is a yes or no question: YES glyphosates will cause cancer at some exposure rate for some amount of time.

Risk: Hazard x Exposure. We can control these things to reduce our risk



NIH found no association between NHL or any other form of cancer



Highest level for no harmful effects: 1.75 mg/kg of body weight/day

This is still 100 times less than the calculated harmful effects

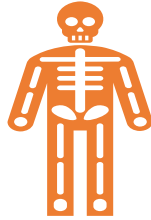


These tests are conducted on pure glyphosate—not any mixed herbicides



The known knows vs the unknowns unknowns

What do we not know to test for?



New invasives to look out for:

Italian arum (Lords & Ladies, Large Cuckoopint, Orange Candleflower)

hardy kiwi

Amur corktree

sapphireberry



Biocontrol updates

common buckthorn: sap sucker (in progress)

phragmites: stem miner (released in Ontario, in US field tests)

Swallow-wort: leaf eating moth (released in Canada, in US field tests)

- Raised by several university labs including MSU
- Coincidentally, found a pathogen attacking swallow-wort, tests ongoing

HWA: One is a beetle, one is a fly (released in NY)

- Doesn't eradicate, but does help control

Other Snapshots from NAISMA 2019

State-wide Updates

- **Michigan Invasive Species Coalition**
 - Core Team participation
- **Play, Clean, Go**
 - Eastern Expansion involvement
- **MIPN & WIGL Collaborative**
 - Board Participation
 - Collaborative Participation—app updates!





Partner Updates!

2 minutes each, please