

# Invasive plant control resources for foresters

1. Redesigned iMapInvasives tool
2. NRCS CIG project for invasive plants
3. Revised Advisory List of invasive plants for Maine
4. Maine Invasive Plants Field Guide

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**Maine Dept. Of Agriculture, Conservation and Forestry**

*Stewardship Forester Workshops*  
*June 2019*



# Dept. of Agriculture, Conservation and Forestry Maine Natural Areas Program



- Keep track of natural resources
- Facilitate informed decision-making
  - Invasive plant initiatives



*All photos courtesy of MNAP unless otherwise noted.*

# **BIG PICTURE - Key steps in addressing invasive plants**

- **Prevent new introductions**
- **Identify and assess**
- **Prioritize**
- **Control**
- **Monitor**
- **(repeat)**

# **BIG PICTURE - include useful invasive plant info in FMPs**

## ***Document, map, explain***

- Document locations of invasive plants, take notes on percent cover, density, areas infested
- Create maps, tables to show the situation
- Explain the threat to forest regeneration
- Take landowner to see the problem

# Key steps in addressing invasive plants

- Prevent new introductions
- **Identify and assess**
- Prioritize
- **Control**
- **Monitor**
- (repeat)



# iMapInvasives free online mapping tool



***Search “Maine  
iMapInvasives”  
to request an  
account, or see  
handout***

- Site assessment: record *what, where, how much?*
- Landscape context: *what plants already infest the area?*
- Use iMap App or a GPS + datasheet/notes
- Can make species-specific maps right from iMap
- Contribute to understanding of invasive plant distribution



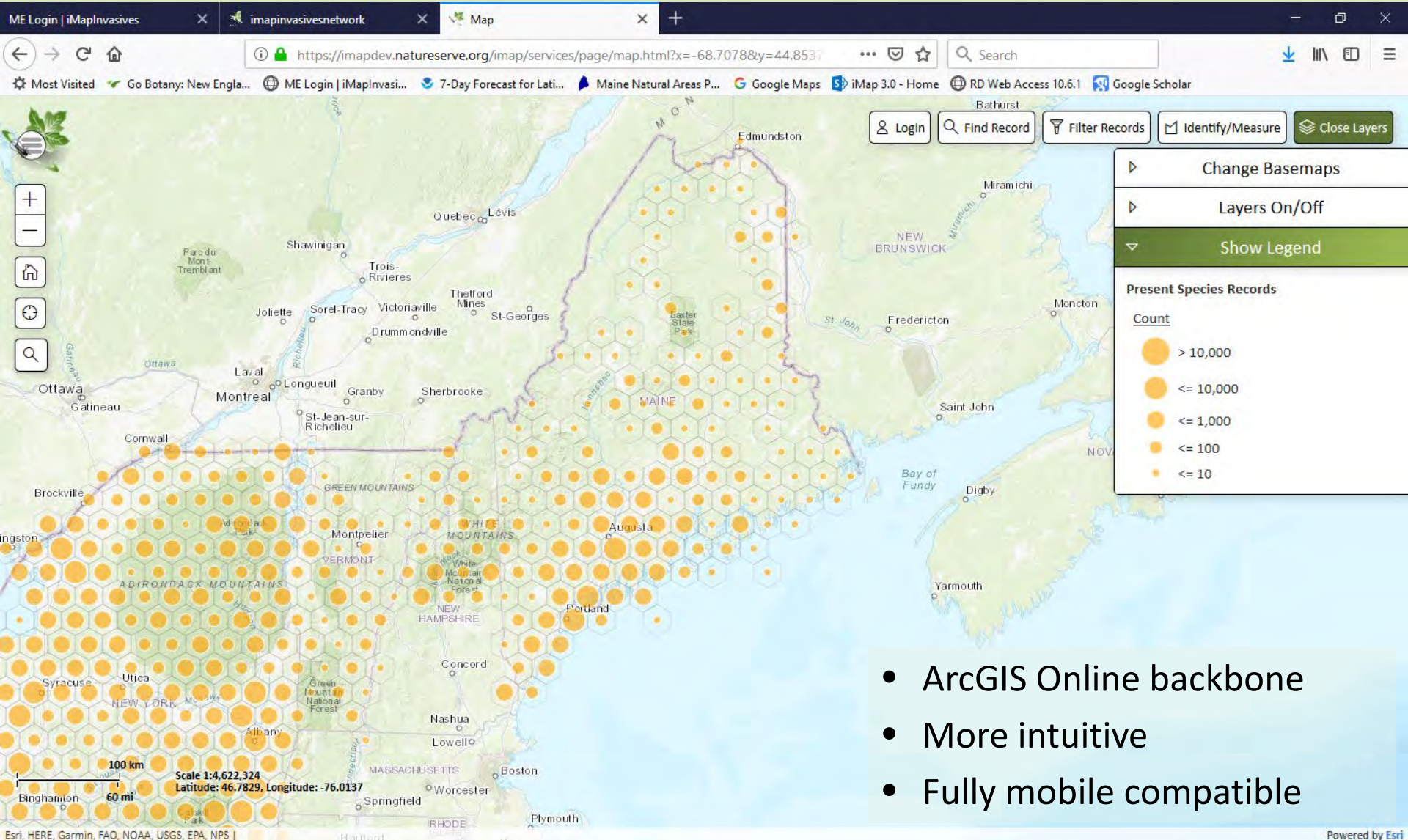


**iMapInvasives**

Sharing information for strategic management

# iMapInvasives online mapping tool

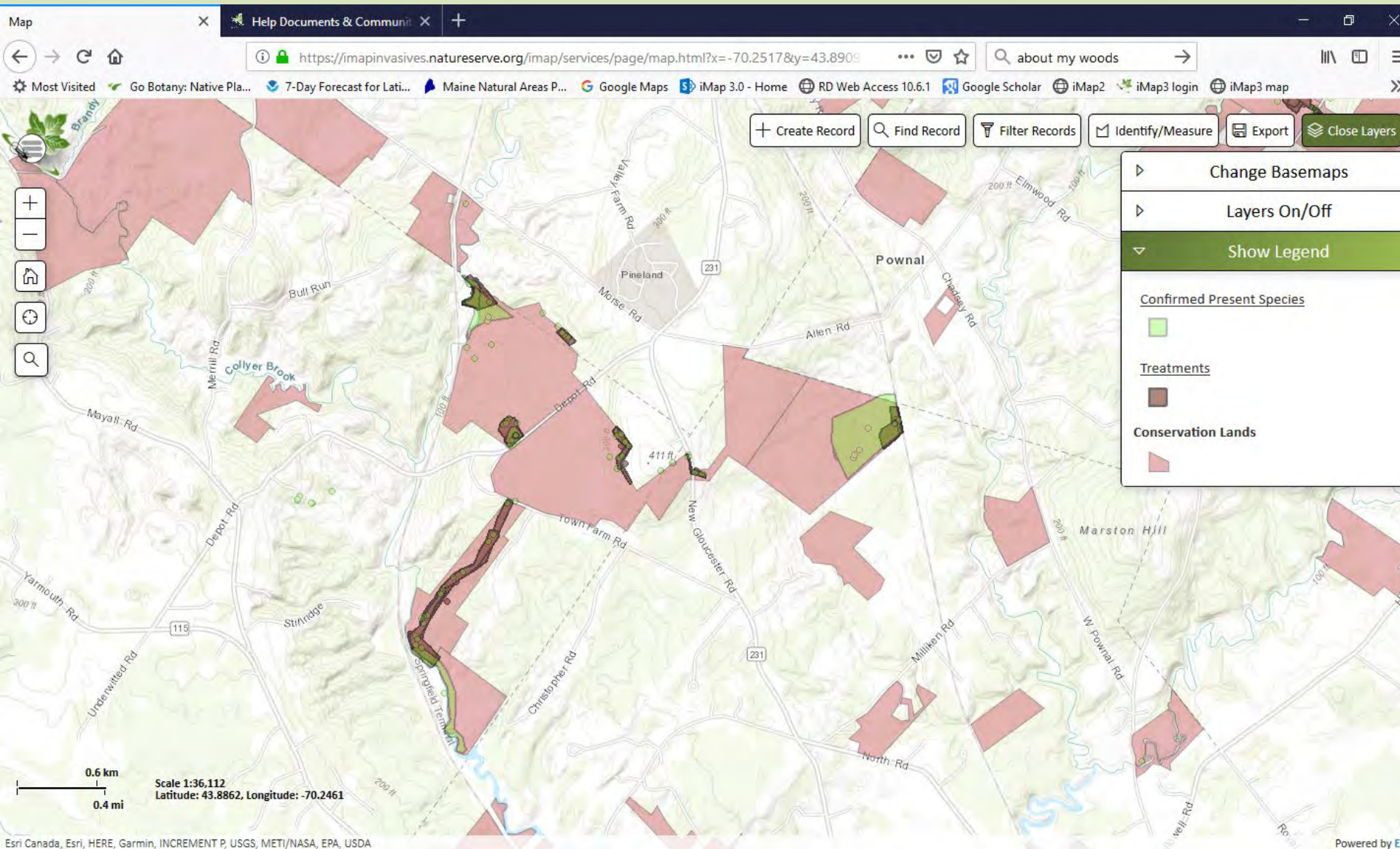
## Completely redesigned for 2019!



- ArcGIS Online backbone
- More intuitive
- Fully mobile compatible



# Site assessment: what species, where, about how much?







Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Powered by Esri

Results by Layer |  Include Hidden Layers | 5 result(s)

Present Species		Treatments					
	Presence ID	Scientific Name	Common Name	Observation Date	Observer Name	Details	Tasks
1	310537	Lonicera morrowii	Morrow's Honeysuckle	Aug 28, 2015	Nancy Olmstead - 1380	<a href="#">Details</a>	<a href="#">Tasks</a>
2	310534	Polygonum cuspidatum	Japanese Knotweed	Aug 28, 2015	Nancy Olmstead - 1380	<a href="#">Details</a>	<a href="#">Tasks</a>

2 result(s)

# NRCS CIG Project

- SWCDs, NRCS, and MNAP
- Target = EQIP-eligible producers including woodlot owners
- Invasive plant survey, maps, and management recommendations provided free to landowners

Project Area: Using iMapInvasives Technology to Help Maine Producers Address Invasive Plant Problems—Phase Two



# NRCS CIG Project

- Call local SWCD to get in the queue – see handout
- Fieldwork in 2019 and 2020
- To implement treatments:
  - EQIP competitive funding
  - Small pot of CIG funding for treatments in 2020



Kennebec County Soil  
& Water Conservation  
District



KNOX-LINCOLN  
**SOIL & WATER**  
**CONSERVATION**  
DISTRICT

SOMERSET COUNTY



SOIL & WATER CONSERVATION DISTRICT



Waldo County  
Soil and Water  
Conservation District



# Revised Advisory List of invasive plants for Maine

- Non-regulatory list; separate from Do Not Sell list
- Based on species' ecological impacts and biological traits
- Plants are ranked e.g., Severely Invasive, Very Invasive, etc.
- Endorsed by TIPSAC and DACF Commissioner
- Will be posted to MNAP website this week

Advisory List of Invasive Plants - 2019 revision

Common Name	Scientific Name	Ranking
American water lotus	<i>Nelumbo lutea</i>	Severely invasive
Amur honeysuckle*	<i>Lonicera maackii</i>	Severely invasive
Asiatic bittersweet*	<i>Celastrus orbiculatus</i>	Severely invasive
Bella honeysuckle*	<i>Lonicera x bella</i>	Severely invasive
Black locust*	<i>Robinia pseudoacacia</i>	Severely invasive
Black swallowwort	<i>Cynanchum louisianae</i>	Severely invasive
Bohemian knotweed	<i>Fallopia x bohemica</i>	Severely invasive
Brazilian waterweed**	<i>Egeria densa</i>	Severely invasive
Canada thistle	<i>Cirsium arvense</i>	Severely invasive
Chinese yam	<i>Dioscorea polystachya</i>	Severely invasive
Chocolate vine; five-leaf akebia	<i>Akebia quinata</i>	Severely invasive
Common buckthorn	<i>Rhamnus cathartica</i>	Severely invasive
Common reed	<i>Phragmites australis</i>	Severely invasive
Curly pondweed**	<i>Potamogeton crispus</i>	Severely invasive
Eurasian milfoil**	<i>Myriophyllum spicatum</i>	Severely invasive
European alder	<i>Alnus glutinosa</i>	Severely invasive
European frog's bit**	<i>Hydrocharis morsus-ranae</i>	Severely invasive
False indigo*	<i>Amorpha fruticosa</i>	Severely invasive
Fanwort**	<i>Cabomba caroliniana</i>	Severely invasive
Flowering rush	<i>Butomus umbellatus</i>	Severely invasive
Garlic mustard*	<i>Alliaria petiolata</i>	Severely invasive
Giant knotweed	<i>Fallopia sachalinensis</i>	Severely invasive
Glossy buckthorn*	<i>Frangula alnus</i>	Severely invasive
Goutweed*	<i>Aegopodium podagraria</i>	Severely invasive
Hydrilla**	<i>Hydrilla verticillata</i>	Severely invasive
Inflated bladderwort	<i>Utricularia inflata</i>	Severely invasive
Japanese barberry*	<i>Berberis thunbergii</i>	Severely invasive
Japanese honeysuckle*	<i>Lonicera japonica</i>	Severely invasive
Japanese knotweed*	<i>Fallopia japonica</i>	Severely invasive
Japanese stilt grass*	<i>Microstegium vimineum</i>	Severely invasive
Morrow's honeysuckle*	<i>Lonicera morrowii</i>	Severely invasive
Ornamental jewelweed*	<i>Impatiens glandulifera</i>	Severely invasive
Pale swallowwort	<i>Cynanchum rossicum</i>	Severely invasive
Parrot feather**	<i>Myriophyllum aquaticum</i>	Severely invasive
Porcelainberry*	<i>Ampelopsis glandulosa</i>	Severely invasive
Reed canary grass	<i>Phalaris arundinacea</i>	Severely invasive
Slender-leaved naiad**	<i>Najas minor</i>	Severely invasive
Starry stonewort	<i>Nitellopsis obtusa</i>	Severely invasive
Starwort	<i>Callitriche stagnalis</i>	Severely invasive
Tall pepperwort	<i>Lepidium latifolium</i>	Severely invasive
Tartarian honeysuckle*	<i>Lonicera tatarica</i>	Severely invasive
Tree of heaven*	<i>Ailanthus altissima</i>	Severely invasive
Variable milfoil**	<i>Myriophyllum heterophyllum</i>	Severely invasive
Water chestnut**	<i>Tropa natans</i>	Severely invasive
Water lettuce	<i>Pistia stratiotes</i>	Severely invasive

\*Plant regulated by the Do Not Sell list, Horticulture Program, DACF

\*\*Aquatic plant regulated by Maine DEP

# Revised Advisory List – how useful?

- Whole universe of invasive plants, not just those in horticulture
- Website will include habitats so can sort for forest species
- Review species not here yet to familiarize yourself
- Links to fact sheets to share with landowners +/- or include with FMPs

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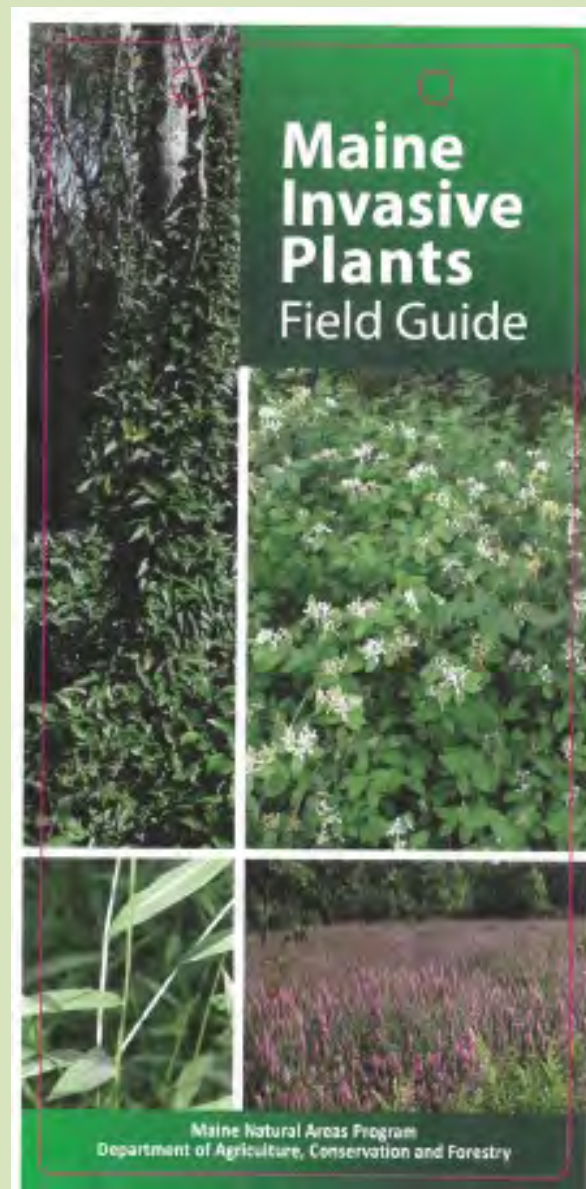
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# NEW - Maine Invasive Plants Field Guide

- Essential ID and control information for 46 species
- Waterproof, small
- Retail price \$24.95
- Herbicide guidance section at back
- Support from US EPA, MOHF, Maine DOT, DACF, Maine Woodland Owners



**GLOSSY BUCKTHORN**  
*Frangula alnus*  
Status in Maine: widespread



**Description:** Perennial, deciduous shrub or small tree, often multi-stemmed, can be single-trunked, to ~20' tall. Despite name, lacks thorns. **Leaves:** Simple, alternate, elliptical, 2-4" long, and sometimes glossy. Leaves turn yellow in fall and persist on the stems later than most species. **Flowers:** White-yellow, 5-petaled, small, in leaf axils, ~June in Maine (though some may bloom later). **Fruits:** Mature from green to red to purple-black in late summer/early fall, red and black fruit can co-occur on the same plant. **Bark:** Mature twigs and stems have dark bark with raised, horizontal, light-colored lenticels. **Roots:** Red.

**Native range:** Europe, Northern Africa, Central Asia. **How introduced in U.S.:** As an ornamental, but also planted for wildlife and revegetation projects.

**Reproduction:** by seed. Fruits eaten and dispersed by birds and small mammals. Seeds viable at least two years.

**Habitat:** Forests, forest edges, many types of wetlands. Moderately shade-tolerant; more productive in sun. Tolerates a wide range of soil conditions.

**Similar native species:** Cherries (*Prunus* spp.) have lenticels but scratched bark on twig has characteristic bitter almond smell and leaves are toothed. Alder-leaved buckthorn (*Frangula alnus*) has serrate leaf margins. Most dogwood shrubs (*Saxifraga* spp.) have opposite leaves with wide bases, narrow tips, and paired veins that arch toward the tip.

**Similar non-native species:** Common buckthorn (*Rhamnus cathartica*) has sub-opposite, toothed leaves, and

shrubs 



# NEW - Trifold invasive plants brochure

*Just a useful little all-in-one brochure to share with landowners, etc.*

Available from MNAP website





**THANK YOU! .... QUESTIONS?**

**Nancy Olmstead**

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