

Invasive plant management for foresters

1. Top plants of concern
2. Resources available
3. Preview of new program

Nancy Olmstead, Invasive Plant Biologist
Maine Natural Areas Program
Maine Dept. Of Agriculture, Conservation and Forestry

Stewardship Forester Workshop
June 18, 2020



Maine Natural Areas Program (MNAP)

Our mission – to ensure the maintenance of Maine’s natural heritage for the benefit of present and future generations.



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



All photos courtesy of MNAP unless otherwise noted.

Top plants of concern

Black swallowwort & pale swallowwort

Cynanchum louiseae & *C. rossicum*



Glossy false buckthorn
Frangula alnus



Japanese stiltgrass (*known in NH, MA, VT)

Microstegium vimineum



Leslie J. Mehrhoff, Univ of Connecticut,
Bugwood.org

5483888



Chuck Barger, University of Georgia, Bugwood.org

UGA2308028

Mile-a-minute weed (*known in NH)

Persicaria perfoliata

Leslie Mehrhoff, Univ. of CT, Bugwood.org



UGA5273091



Tree of heaven *Ailanthus altissima*

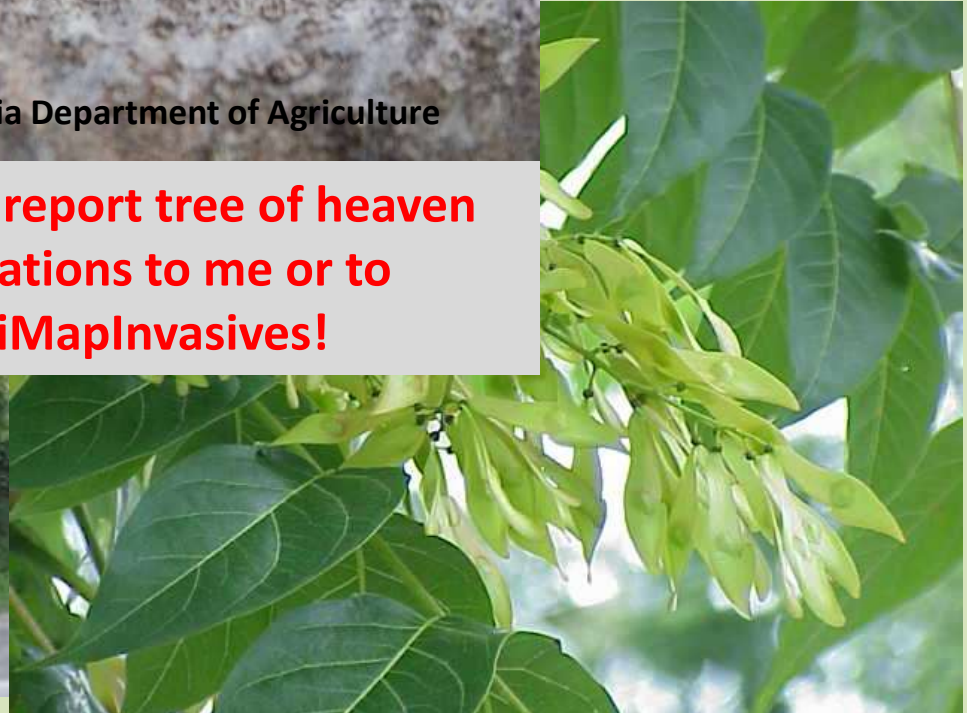


Spotted Lanternfly



Pennsylvania Department of Agriculture

**Please report tree of heaven
locations to me or to
iMapInvasives!**



Resources

Advisory List of invasive plants for Maine

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About MNAP

Focus Areas

Communities, Plants and Animals

Natural Communities and Ecosystems

Rare Plants

Invasive Plants

Invasive Plant List and Fact Sheets

Ecological Inventory and Monitoring

Rare Animals

State and Global Rarity Ranks

Survey Forms

Maps, Data, and Technical Assistance

Ecological Reserves

Maine Natural Areas Program

Advisory List of Invasive Plants - 2019

- [Printable list - common name](#)
- [Printable list - scientific name](#)
- [Invasive Plant Gallery](#)
- [2019 Endorsement](#)

This is a list of non-native plants found to pose a threat to habitats and natural resources in Maine. The Advisory List is an informal tool for landowners, wildlife biologists, foresters, land stewards, conservation commissions, and others interested in controlling invasive plants and preventing their spread. It is intended for education and outreach, land management, and other non-regulatory uses.

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Common Name	Scientific Name	Invasive Ranking	Habitats Threatened	Status in Maine
American water lotus	Nelumbo lutea	1-Severely invasive	Open Water, Open Wetlands	Localized
Amur honeysuckle	Lonicera maackii	1-Severely invasive	Open Uplands, Wooded Uplands, Wooded Wetlands	Localized
Amur maple	Acer ginnale	2-Very invasive	Open Uplands, Wooded Uplands, Wooded Wetlands	Localized
Asiatic bittersweet	Celastrus orbiculatus	1-Severely invasive	Open Uplands, Wooded Uplands, Open Wetlands, Wooded Wetlands	Widespread
Autumn olive	Elaeagnus umbellata	2-Very invasive	Open Uplands, Wooded Wetlands	Widespread
Bella honeysuckle	Lonicera x bella	1-Severely invasive	Open Uplands, Wooded Uplands, Open Wetlands, Wooded Wetlands	Localized
Bicolor lespedeza, two-colored bush-clover	Lespedeza bicolor	3-Invasive, habitat-specific threats	Open Uplands, Wooded Uplands	Not Yet Detected
Bittersweet or climbing nightshade	Solanum dulcamara	4-Potential to be invasive, monitor	Open Uplands, Wooded Uplands, Open Wetlands, Wooded Wetlands	Widespread
Black letbead	Rhodotypos scandens	2-Very invasive	Open Uplands, Wooded Uplands	Not Yet Detected

https://www.maine.gov/dacf/mnap/features/invasive_plants/invsheets.htm

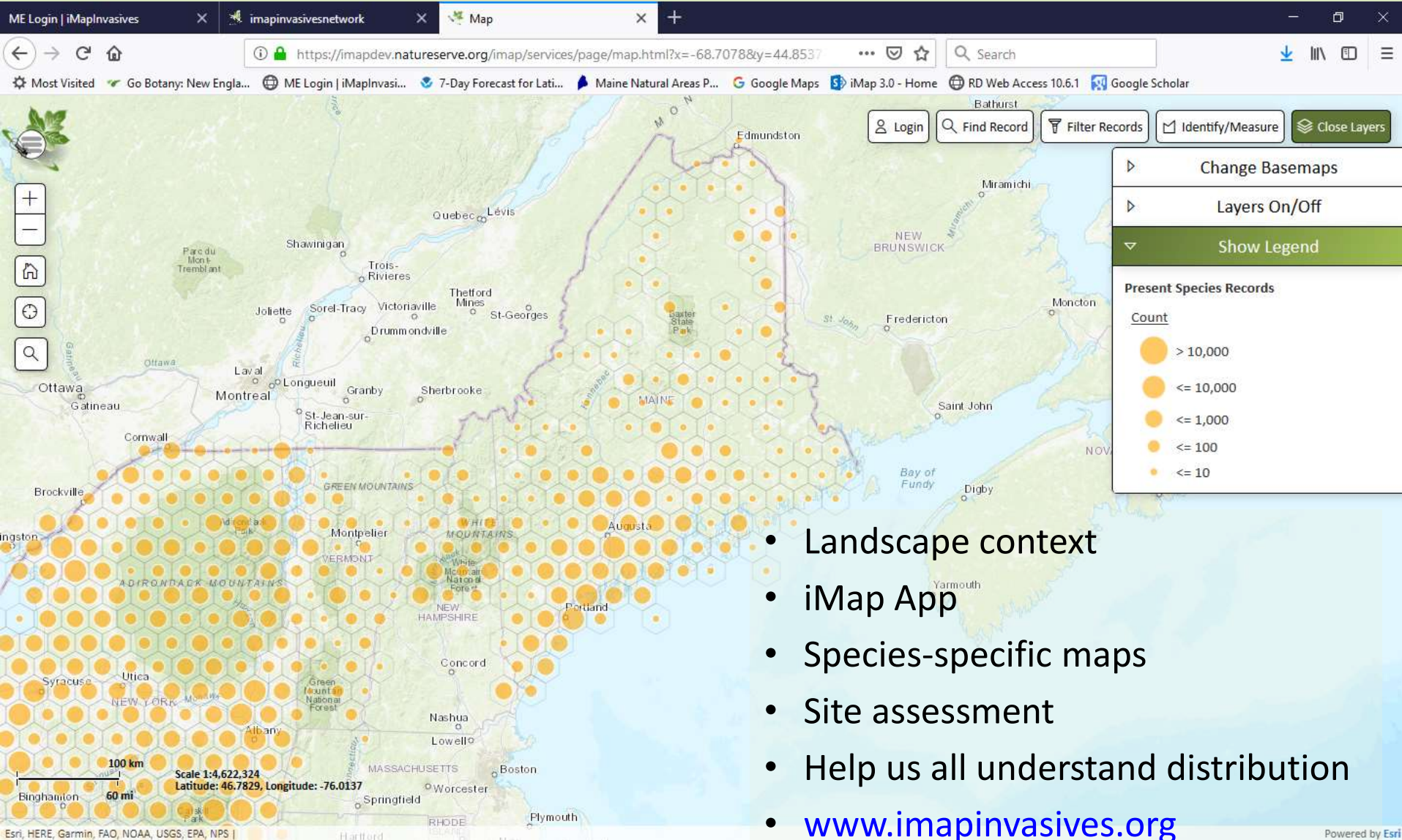


iMapInvasives

Sharing information for strategic management

iMapInvasives online mapping tool

Central repository for invasive plant data



Maine Invasive Plants Field Guide

Maine Invasive Plants Field Guide

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 spread 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 or twig has characteristic bitter almond smell and leaves are toothed. Alder-leaved buckthorn (*Frangula alnus*) has serrate leaf margins. Most dogwood shrubs (*Swida* 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



- Essential ID and control information for 46 species
- Waterproof, small
- Herbicide guidance section at back

https://forms.office.com/Pages/ResponsePage.aspx?id=q6g_QX0gYkubzeoajy-GTil4gRjLdupBgWI8NDDCGoNUQzE5R1hCMUIOUjRaSzgyOTYwWThVTkVZWC4u

NRCS CIG Project with 4 SWCDs: free invasive plant management plans for farms & woodlots in 5 counties:

*Kennebec
Knox
Lincoln
Waldo
Somerset*

Flyer available on MNAP website:
https://www.maine.gov/dacf/mnap/features/invasive_plants/cig_freesurvey2020.pdf

Attention farm and woodland owners in
Kennebec, Knox, Lincoln, Somerset, and Waldo counties!
Your local Soil and Water Conservation District
is pleased to offer, free of cost,
an **INVASIVE PLANT MANAGEMENT PLAN** for your property.

Are these plants invading your property?



Asiatic Bittersweet vine

Multiflora rose

Japanese Knotweed

Shubby Honeysuckle

Have a professional come walk your property in **summer 2020**, map the locations of invasive plants, and prepare a report with specific ideas for how to manage them. Treatment funding may also be available in certain situations through this project or the Natural Resources Conservation Service.

Space is limited so **SIGN UP NOW** by contacting the Soil and Water Conservation District in the County where your property is located:

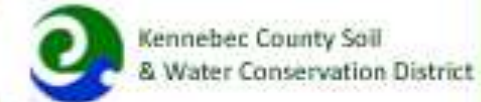
Somerset County - Joe Dembeck at jdembeckr15@gmail.com or 207.474.8323 ext. 3

Kennebec County - Dale Finseth at dale@kcsacd.org or 207.621.9000

Knox and Lincoln Counties - Rebecca Jacobs at rebecca@knox-lincoln.org or 207.596.2040


Waldo County - Aleta McKeage at aleta.waldosolandwater@gmail.com or 207.218.5311

This project is sponsored by:



List of licensed invasive plant control professionals

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Home > [Invasive Pests](#) > List of Licensed Companies Offering Services for Control of Invasive Terrestrial Plants

List of Licensed Companies Offering Services for Control of Invasive Terrestrial Plants

The following list includes companies that are licensed to provide services for control of invasive terrestrial plants in Maine. The Maine Board of Pesticides Control does not recommend these above any others. This is not a complete list of licensed companies; these responded to a letter asking if they wanted to be listed. Others wanting to be listed should contact the Board by emailing pesticides@maine.gov or calling 207-287-2731 (created October 2018).

For more information about invasive plants:

- [Maine Natural Areas Program](#)
- [State Rules re Invasive Plants administered by the Maine Horticulture Program](#)

LICENSED COMPANY LIST				
Company Name	Company Address	Phone Number	E-mail/Webpage	Area Served
Absolutely Complete Property Services	8 Evergreen Farms Rd, Scarborough, ME 04074	207-415-8011	nhjort@acps.me	Androscoggin, Cumberland, Oxford, Sagadahoc, and York counties
Aroostook Arboriculture Inc.	PO Box 402, Presque Isle, ME 0769	207-227-4726	darren@groundperfectionspecialists.com	Statewide
Bartlett Tree Experts	9 Washington Ave, Scarborough, ME 04070	207-883-3340	ntucker@bartlett.com	Cumberland, Lincoln, Sagadahoc, and York counties
Bartlett Tree Experts	PO Box 88, Wolfeboro Falls, NH 03896	603-569-3163	rfrench@bartlett.com	Oxford and York counties
Basswood Environmental LLC	PO Box 6258, Cape Elizabeth, ME 04107	207-518-8442	erik@basswoodenv.com	Statewide
Durham Land & Tree	P.O. Box 145	207-825-4050	blburman@gmail.com	Statewide

Maintained by the Maine BPC; contact them to be listed

<https://www.maine.gov/dacf/php/gotpests/terrestrial-invasive-companies.html>

List of non-herbicide or herbicide+ invasive plant control professionals

[Maine.gov](http://www.maine.gov) | [Agencies](#) | [Online Services](#) | [Help](#) | | [Select Language](#)

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Maine Natural Areas Program

Non-Herbicide or Herbicide-Plus Invasive Plant Control Businesses

The following list includes companies that provide non-herbicide or herbicide-plus services for control of invasive terrestrial plants in Maine. The Maine Natural Areas Program does not recommend these above any others. This is not a complete list of companies offering non-herbicide control; these responded to outreach asking if they wanted to be listed. Others wanting to be listed should contact the Maine Natural Areas Program by emailing invasives.mnap@maine.gov or calling [207-287-8046](tel:207-287-8046).

[Printable pdf of this list](#)

Search: Show entries

Name / Business ▲	Types of Control Offered ▲	Address ▲	Phone ▲	Email ▲	Areas Served Within Maine ▲
American Groundwork	Mechanical; Animals	49 Raven Road, Freedom, ME 04941	207-382-7778	americangroundwork@gmail.com	Waldo, Knox, Lincoln, Kennebec, Hancock, Penobscot, Somerset, Washington, Piscataquis
Fred Mason, Birch Tree Arborist	Mechanical; Manual; Flame weeding	18 Harlie Woods, Durham, ME 04223	207-577-6660	fred@birchtreearborist.com	Mid Coast, Greater Portland, Bath, Freeport, Yarmouth greater area
Hunter Manley	Herbicide; Manual; Flame weeding	PO Box 282, Farmington, ME 04938	207-491-3420	hunter.c.manley@gmail.com	Serving most of Maine, particularly Franklin, Oxford, Somerset, Penobscot, Waldo, Kennebec, Androscoggin Counties
Jones Associates Inc	Mechanical; Manual	280 Poland Spring Road, Auburn, ME 04210	207-241-0235	rjones@jonesai.com	State of Maine

https://www.maine.gov/dacf/mnap/features/invasive_plants/nonherbicide.html

Maintained by MNAP – contact us to be listed

Trifold invasive plants brochure

Small, all-in-one brochure to share with landowners, etc.

PDF Available from MNAP website

https://www.maine.gov/dacf/mnap/about/publications/invasive_plant_brochure.pdf



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

New program

USFS grant to Maine Forest Service to help with invasive plants:

WoodsWISE Invasive Plant Assistance & Project Canopy Invasive Plant Assistance

1. Invasive Plant Academy & Landscape Plan
2. Cost-share for Invasive Plant Control Practice Plans
3. Competitive funding for full treatment

Spring 2021 – Spring 2023



Invasive Plant Academy goal: prepare foresters and other NR professionals to create invasive plant management plans

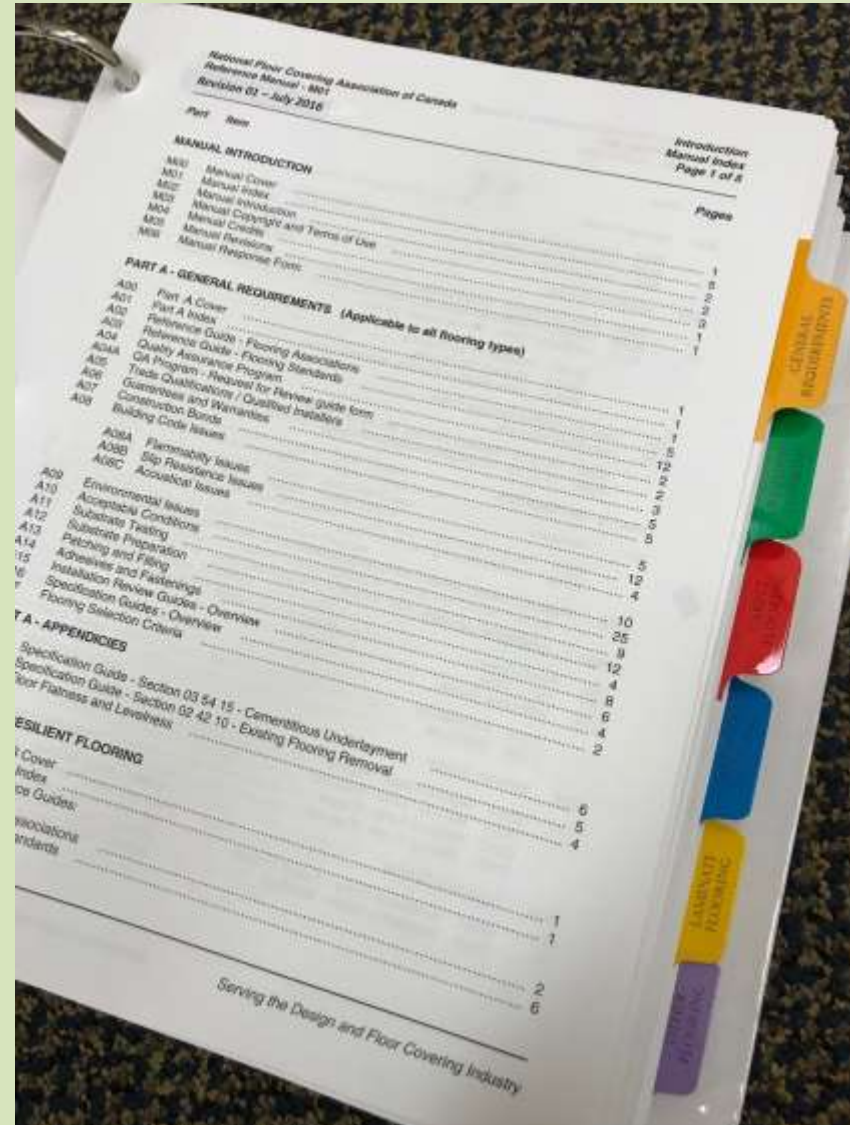
Multi-day academy

- Indoors and outdoors at field sites
- ID, ecology
- Survey strategy
- Mapping tools
- Management methods
- Components of a plan
- Program reporting and requirements
- Testing



Invasive Plant Landscape Plan

- Manual for the program
- Reference material for the IPA
- Soup to nuts how-to
- Treatment guidance
- Plan examples



Cost-share for Invasive Plant Control Practice Plans

- Plans prepared by IPA graduates summers 2021, 2022
- 50% of LO cost reimbursable up to a certain amount/acre or maximum based on property size
- Standard format and components for plans

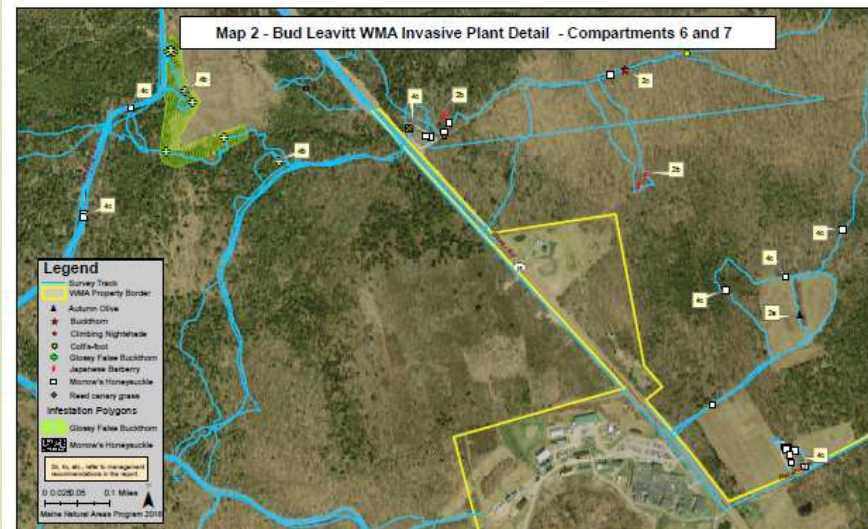
Invasive Plant Mapping – Summary and Management Recommendation:

Bud Leavitt WMA (Towns of Dover-Foxcroft, Adkinson, Garland, and Charleston)
Prepared by Mary Yurlina, Maine Natural Areas Program (MNAP)
December 14, 2018

Statement of Goals and Objectives:

MNAP approaches invasive plant evaluation from the perspective of wanting to maintain the structure and functions of the ecosystem, including areas supporting biodiversity (e.g., rare species) or rare or exemplary natural communities. Invasive plants are not all equally threatening. Prioritization strategies are helpful because it is not usually realistic to remove every invasive plant from every acre of land. The highest priority is prevention – keeping new species out. After establishment, invasive plant management follows a three-tiered prioritization:

1. **Early Detection and Rapid Response (EDRR)** to eliminate species which are new to the area or only present in small patches. Goal is eradication from the site. Hopefully can be achieved with work over a short timeframe (several years). Best return on investment – an ounce of prevention is worth a pound of cure! Nip it in the bud now while you still can.
2. **Early Management** to control patches of widely-dispersed, common invasive plants within the matrix of uninvaded habitat. Goal is to expand “clean” habitat and prevent it from being re-infested through monitoring over time. This is ongoing maintenance work that needs to be repeated every several years (2-5 year interval). Areas of special concern (intact forest blocks, rare/exemplary features, and special wildlife habitats) may be targeted first or more often.



Competitive funding for treatment

- Plans can compete for funding
- Awarded properties will have management paid in full by grant
- Late summer/early fall 2021 and throughout 2022
- Variety of effective methods
- Monitoring by MFS



THANK YOU! QUESTIONS?

Nancy Olmstead

Nancy.olmstead@maine.gov

287-8046

