Beware the Invaders!

Roadside, Riparian and ROW Invasive Plants

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Commonalities of Invasive Plants

• Site adaptable
• Like disturbance
• Create dense shade
• High reproductive capacity- sexually and asexually
• Some type of defense- thorns, toxic/bad taste, dermatitis

THEREFORE,
they out-compete native plants
Damage

• Form dense populations
• Interfere with forest regeneration
• Crowd out native plants
• Habitat destruction
• Reduction in wildlife populations/less diversity
• Interfere with recreation
• Non-natives- they contribute nothing to the ecosystem
• Leach toxic substances into the soil- recovery is difficult
• Control is problematic even with the use of herbicides
• Control and restoration measures are expensive and time consuming
Autumn Olive

**Identification**
- Shrub, 20’ tall
- Stems covered with silvery or rusty scales
- Thorny
- Leaves- silver or gray-green
- Fruit- red berry, with Metallic-looking scales
# Autumn Olive

## Threats

- Invades disturbed areas, forest edges, abandoned pasture
- Birds disseminate berries
- Creates dense shade, thickets

## Control

- **Manual-**
  - Pulling- must get entire root system
  - Cutting- only works in conjunction with herbicides
- **Herbicide-**
  - Cut stump
  - Basal bark spray
  - Foliar spray
Buckthorn

**Identification**
- Small tree, multiple trunks, 25’
- Stems covered with silver lenticels
- Twigs end with thorns
- Orange or yellow under bark
- Fruit- clusters of black berries
Buckthorn

**Threats**
- Invader of maple forests, riparian woods, abandoned pasture
- Leaf out before natives; retain leaves longer
- Interferes with forest regeneration
- Seeds- laxative effect

**Control**
- Manual
  - Pulling, digging
  - Cutting- only works in conjunction with herbicides
- Herbicide
  - Cut stump
  - Basal bark spray
  - Foliar spray
Exotic Bush Honeysuckles

**Identification**
- Shrub, 5 to 12’
- Older stems are hollow
- Leaves bluish green to downy
- Fruit - red, yellow or orange berry
Honeysuckles

**Threats**

- Invades disturbed woodlands, edges, roadsides, abandoned pasture
- Leafs out before natives
- Seeds disseminated by birds—low fat content

**Control**

- Manual
  - Pulling
  - Cutting (w/ herbicide)
  - Burning
- Herbicide
  - Cut stump
  - Basal Bark Spray
  - Foliar spray
Japanese Barberry

Identification-
• Common landscape plant
• Small shrub, 3 to 6’
• Spiny
• Fruit- egg-shaped berry
Japanese Barberry

**Threats**

• Invader of forest edges, pasture, roadsides
• Seeds dispersed by birds and rabbits
• Spines an issue on hiking trails

**Control**

• Manual
  • Burning is very effective
  • Mowing of young plants
• Herbicides
  • Cut stump
  • Basal bark spray
Wild Parsnip

**Identification**-
- Herbaceous perennial, up to 6’ tall
- Compound leaves
- Yellow flower umbels
Wild Parsnip

Threats

• Invades roadsides, abandoned fields
• Prolific seed producer - seeds viable for up to 4 years
• Causes severe burns to skin; photodermatitis

Control

Use caution if working with or near this plant!

• Manual
  • Cut plants below root crown
  • Mowing - before seeds develop!
• Herbicides
  • Foliar
Giant Hogweed

**Identification**-
- Biennial/perennial; up to 16’ tall
- Stem is purple-mottled and hollow
- Sharply lobed leaves up to 10’ across
- Flower- white umbel, up to 5’ across
Giant Hogweed

**Threats**

- Due to its size it suppresses native plants.
- Prolific seed producer
- Causes severe burns to skin; photodermatitis

**Control**

- *Use caution if working with or near this plant!*
- *Do not attempt control-contact CCE, DEC or SLELO PRISM for control programs!*
Swallow-wort

**Identification**-
- Herbaceous perennial vine
- Leaves glossy, oval with pointed tips
- Flowers - small clusters, 5 petals, pink to maroon
- Fruit - pod; smooth, slender and pointed; in pairs. Contain downy seeds
Swallow-wort (Pale and Black)

**Threats**

- Aggressive in perennial crops, disturbed areas
- Will grow in any site conditions except standing water
- Wind dispersed seeds
- Crown of plant has buds
- Interferes with forest regeneration
- Changes the microbial composition of the soil
- Allelopathic properties
- Toxic cardiac glycosides
- Threat to monarch larvae

**Control**

**Small populations**

- Digging - must remove crown

**Large populations**

- Mowing
- Foliar herbicides in conjunction with mowing
Japanese Knotweed

Identification:
• Perennial, over 10 feet tall
• Large leaves with pointed tips
• Stems hollow and jointed; ‘bamboo’
• Elongated clusters of white flowers in late summer
• Fruit- winged ‘pods’
Japanese Knotweed

**Threats**
- Invades riparian, disturbed areas
- Forms dense thickets
- Reproduces via seeds and rhizomes

**Control**
- Cutting, mowing
- DO NOT dig or till!
- Cut stem application of herbicide
- Foliar herbicide
- Cut stems in spring, apply herbicide in late summer or fall
Himalayan Balsam

Identification-
• Succulent annual, 3 to 10 feet tall
• Stems- purplish and hollow
• Distinctive white, pink or purple flowers
• Fruit- chambered capsule that explodes

Native jewelweed has orange flowers!
Himalayan Balsam

**Threats**
- Riparian/wet areas - re-seeds very quickly - seeds moved by water
- Out competes natives
- River banks - increased erosion

**Control**
- Pull in early summer before seeds develop
- Mowing/cutting
- Herbicides before flowering and repeat the following year - seeds remain viable for 2 years
Purple Loosestrife

**Identification**
- Wetland habitats
- Perennial herb; under 4’ tall
- Square stem, covered with downy hair
- Lance- to heart-shaped leaves
- Flowers- purple spikes
Purple Loosestrife

**Threats**
- Invades marshes, river/pond/stream banks, roadside ditches
- Moist soils; neutral pH
- Dense stands displace native plants

**Control**
- Pulling or cutting before flowering
- Late summer herbicide applications
- Bio-control *Galerucella* beetles very effective!
Garlic Mustard

**Identification**-
- Biennial herb; 1 to 3’ tall
- First year leaves (rosette) kidney shaped
- Second year leaves triangular and toothed
- Flowers late spring- white clusters, ¼”
- Fruit- black seeds in elongated capsule
Garlic Mustard

**Threats**

- Site adaptable
- Understory of forests - interferes with regeneration
- Allelopathic properties

**Control**

- Pull or cut before seed set
- Herbicides
- Pesto parties!
Leafy Spurge

Identification -
• Perennial, bluish-grey hue to leaves, 4’ tall
• Cut leaves or stems exude a white, sticky sap
• Flowers in late spring- yellow flower bracts
Leafy Spurge

**Threats**

- Invades roadsides, pastures, disturbed areas
- Full sun; soil adaptable
- Extensive underground stems and roots
- Exploding seed pods - 20’!
- Problem in hayfields
  - Toxic to cattle and horses

**Control**

- Mowing before seed production
- Repeated mowing for re-sprouts
- Herbicides
Wild Chervil

**Identification**
- Biennial/perennial; carrot family
- Prefers moist soil
- Fern-like leaves
- Small, white flowers in clusters
Wild Chervil

**Threats**
- Roots can extend 6’ into soil
- Out-competes native species
- Problem in hay and forage crops
- Can irritate skin

**Control**
- Mow/till before seed production
- Digging- remove root stalk
- Broadleaf weed control products
Spotted Knapweed

**Identification**
- Biennial, 4 to 5’
- Thistle-like flower; pink to purple
Spotted Knapweed

**Threats**

- Invades dry areas - dunes, barrens, disturbance
- Allelopathic properties - prevent growth of native species
- One plant can produce 140,000 seeds; 7 year viability
- Can cause skin irritation

**Control**

- Goats or sheep
- Pulling (small populations)
- Herbicide application during bud growth
- Several biological insect controls
Exotic Phragmites (Common Reed Grass)

**Identification-**

- Up to 15 feet tall
- Grows in dense stands
- Flowers- purple plumes; July
- Rigid, ribbed stems
- Dense mat of rhizomes
Exotic Phragmites

**Threats**

- Wetlands, disturbed soils, drainage ditches
- Forms monocultures
- Interferes with ground nesting birds
- Fire hazard

**Control**

- Cut in mid-summer to reduce vigor
- Burning
- Foliar or cut stem applications of herbicides
Japanese Stiltgrass

Identification-
• Annual; Looks like small bamboo; grows up to 3 1/2 ’
• Blades are lance-shaped have an off-center midrib
• Stripe of silvery hairs on upper leaf surface
• Grows in damp locations with high nitrogen soil levels
Japanese Stiltgrass

**Threats**
- Invades fields, trails, ditches, forest edges, disturbed areas
- Out-competes native vegetation
- Decreased diversity
- Not a food of choice for deer
- One plant can produce up to 1,000 seeds w/ 3 year viability

**Control**
- Hand pull small populations before seed set
- Mowing, tilling
- 4-6’ of mulch to prevent seed emergence
- Systemic herbicides for large infestations
  - Pre-emergent herbicide in spring and if soil is disturbed
Japanese Stiltgrass
In Your Community...

Keep an eye on:

• Disturbed areas
  • If an area is disturbed → Have a plan!
• Abandoned pastures
• Natural areas frequented by people
• Stream/water banks
• 4-Wheeler trails
  • Associated with higher levels of invasives
In Your Community...

Be suspicious of:

• Large, dense, monoculture of plants
• Anything you’ve never seen before
• Deer
  • High deer pressure is associated with increased levels of invasives
In Your Community...

Once control or suppression is achieved:

• Have a plan for restoration
• Scout the area frequently!
  • Seeds can remain viable in the soil for many years

*Thoroughly clean equipment between sites!
I think I found an invasive plant, now what?

• Get a positive identification - CCE, DEC, SLELO PRISM
  • Photograph
  • Sample is best (do not touch potentially toxic plants!)

• Control small populations ASAP

• Larger areas-
  • Continually mow if possible
  • Treat satellite populations first; move toward source population
  • Persistence will be required!

• Restore the area

• Continually scout
Questions?