Section 3
Herbaceous Plants
(including Grasses & Vines)

Aegopodium podagraria – Goutweed
Invasive herbaceous plant

Goutweed infestation. Photo: Robert Vidéki, Doronicum Kft., Bugwood.org

Goutweed plants produce clusters of white flowers. Photo: Les Mehrhoff, IPANE

Aegopodium podagraria – Goutweed
Invasive herbaceous plant

Variegated goutweed foliage.
Photo: Les Mehrhoff, IPANE

Goutweed flowers (left) and fruits (right). Photo: Les Mehrhoff, IPANE

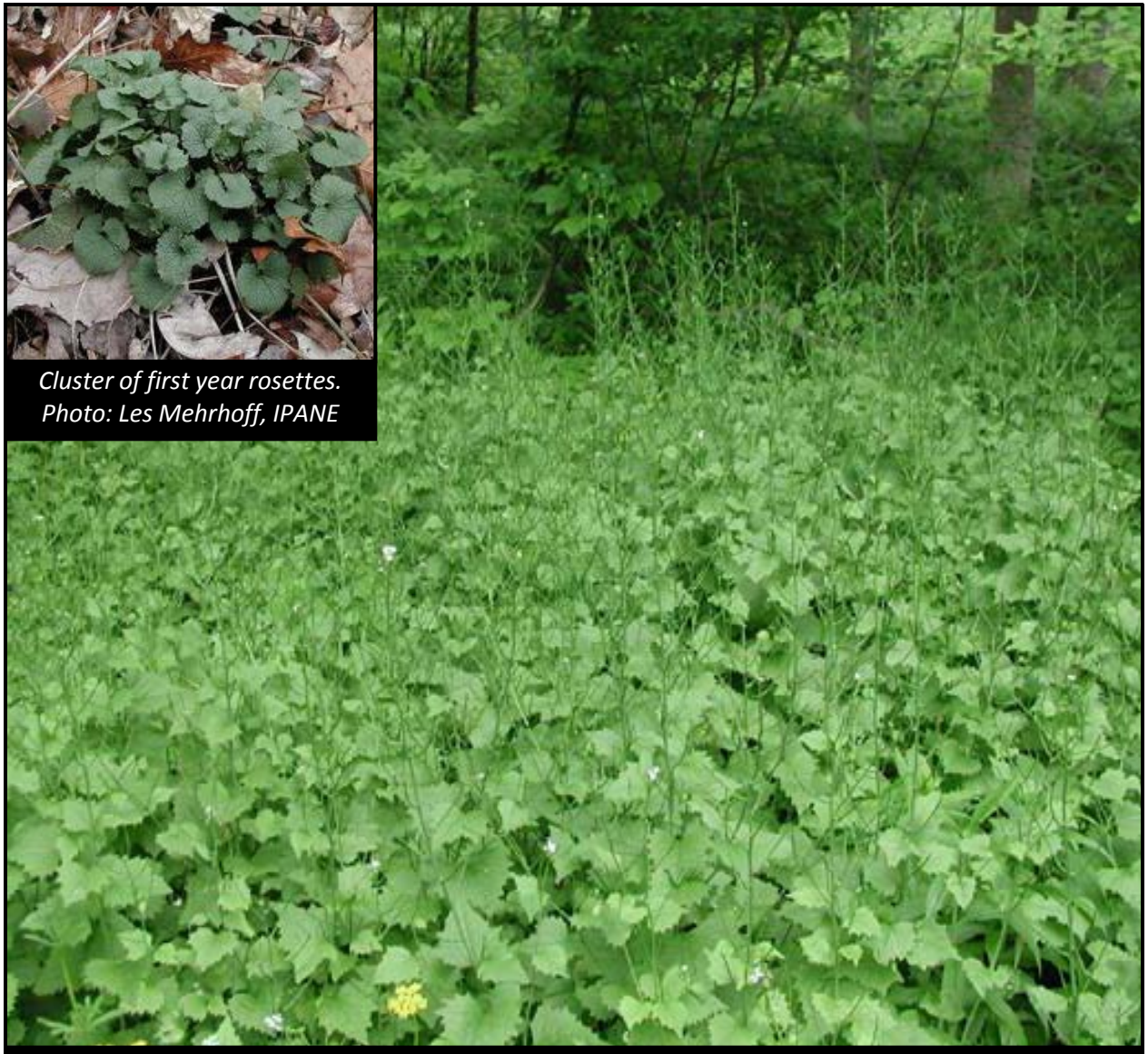
Alliaria petiolata – Garlic Mustard
Invasive herbaceous plant

Close-up of garlic mustard rosettes.
Photo: Nicole Gabelman, UConn

Stalks with flowers.
Photo: Les Mehrhoff, IPANE

Alliaria petiolata – Garlic Mustard
Invasive herbaceous plant

Cluster of first year rosettes. Photo: Les Mehrhoff, IPANE

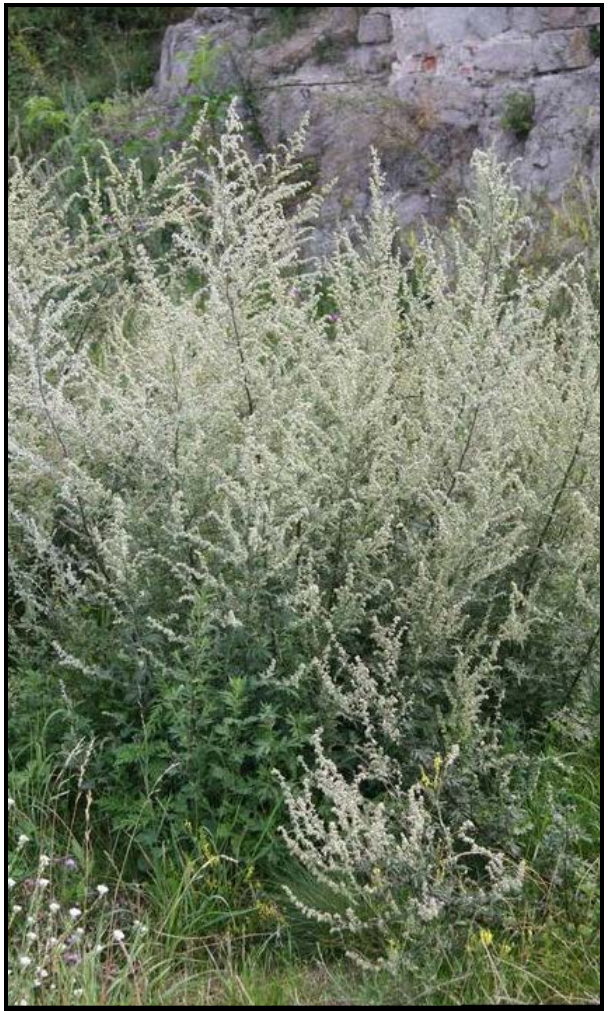


Infestation of second year stalks. Photo: Les Mehrhoff, IPANE

Top: Cluster of white, four petaled flowers. Bottom: Black seeds are produced in pods (siliques). Photos: Les Mehrhoff, IPANE

Artemisia vulgaris – Mugwort
Invasive herbaceous plant

Mugwort growing in a garden.
Photo: Nicole Gabelman, UConn



Mugwort stand. Photo: Robert Vidéki,
Doronicum Kft., Bugwood.org

Artemisia vulgaris – Mugwort
Invasive herbaceous plant

Mugwort spreads by aggressive rhizomes (underground creeping stems).
Photo: Clay Minor, Norwalk, CT

Mugwort leaves vary from bottom to upper portion of plant (left to right). Photo: Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

Mugwort plants have aromatic foliage.
Photo: Connie Scata

Artemisia vulgaris – Mugwort
Invasive herbaceous plant

Flower clusters can produce viable seeds in CT. Photo: Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

Flower heads in spike-like cluster at stem terminal. Photo: Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

Stems become reddish and woody with maturity.
Photo: Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

Undersides of leaves have soft, silvery-white hairs.
Top photo: Virginia Tech, www.ppws.vt.edu.
Bottom photo: Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

Arthraxon hispidus – Hairy Jointgrass
Potentially invasive grass

Low-growing creeping annual grass grows up to 1.5’.

Hairs along margins of leaf blades.
Heart-shaped bases encircle the sheath.

Flowers in spike-like racemes Sept. – Oct.

Photos: Les Mehrhoff, IPANE, Bugwood.org

Comparison

Arthraxon hispidus vs. *Dichanthelium clandestinum*

Hairy Jointgrass (invasive) vs. Deer-tongue Grass (native)

Hairy jointgrass.

Photo credit: www.eddmaps.org/report/images/McClure's029.jpg

Deer-tongue grass.

Photo credit: J. Sulman, botany.wisc.edu/jsulman/Jsulman_plantphotos

Comparison

Arthraxon hispidus vs. *Dichanthelium clandestinum*

Hairy Jointgrass (invasive) vs. Deer-tongue Grass (native)

Hairy Jointgrass Traits:

- **Native Region**: Eastern Asia
- **Inflorescence:** Spikelet
- **Stems:** Root at nodes
- **Leaves**: Ovate to lanceolate, hairy along margins, 2 – 7 cm in length
- **Habitat:** Prefers sunny, moist conditions

Deer-tongue Grass Traits:

- **Native Region**: Eastern North America
- **Inflorescence:** Panicle
- **Stems:** Do not root at nodes
- **Leaves:** Lanceolate, mostly smooth along margins, 10 – 25 cm in length
- **Habitat:** Prefers partly sunny, moist, sandy conditions

http://oak.ppws.vt.edu/~flessner/weedguide/arahi.htm; http://www.illinoiswildflowers.info/grasses/plants/deertg_grass.html

Butomus umbellatus – Flowering Rush
Potentially invasive aquatic plant

Perennial, aquatic herb grows ~ 3’ tall in water several meters deep.

Flowers in bracted umbels from summer to fall depending on water depth.

Fleshy rhizomes.

Dark brown fruits.

Photos: Les Mehrhoff, IPANE, Bugwood.org

Cardamine impatiens – Narrowleaf Bittercress
Invasive herbaceous plant

Leaf and stem of narrowleaf bittercress. Photo: Les Mehrhoff, IPANE

Narrowleaf bittercress fruits (siliques).
Photo: Donald Cameron, gobotany.newenglandwild.org

Narrowleaf bittercress rosette.
Photo: Les Mehrhoff, IPANE

Cardamine impatiens – Narrowleaf Bittercress
Invasive herbaceous plant

Upper leaves are more highly divided. Photo: Les Mehrhoff, IPANE

White flowers. Photos: Les Mehrhoff, IPANE

Invasion of narrowleaf bittercress. Photo: Les Mehrhoff, IPANE

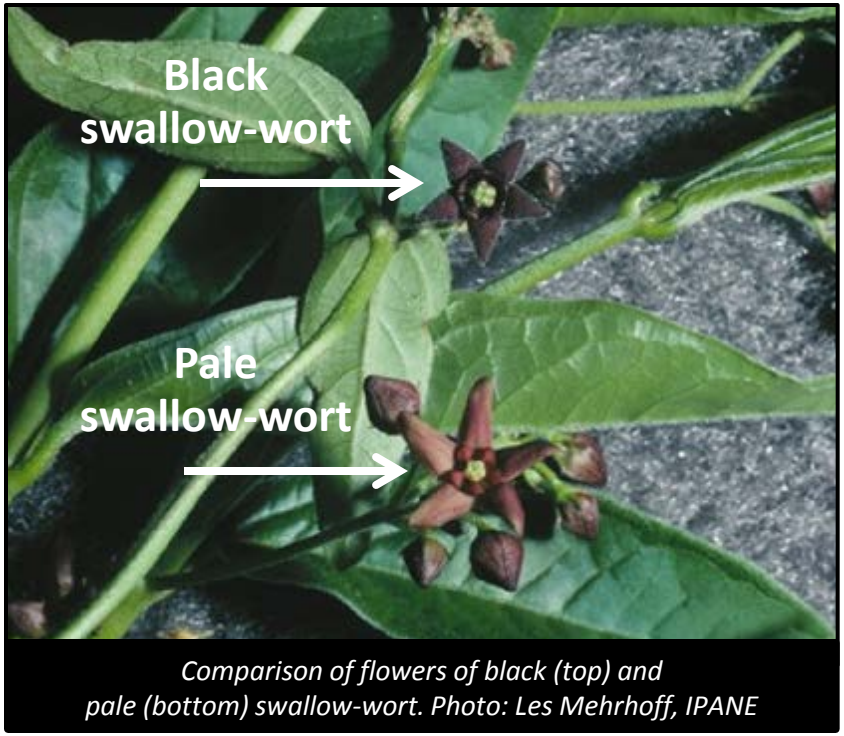
Smooth stem. Photo: Les Mehrhoff, IPANE

Cynanchum louiseae – Black Swallow-wort
Invasive herbaceous vine

Twining growth habit. Photo: Les Mehrhoff, IPANE

Invaded field. Photo: Les Mehrhoff, IPANE

The fruits are pods (left) that produce wind dispersed seeds (right). Photos: Les Mehrhoff, IPANE



Comparison of flowers of black (top) and pale (bottom) swallow-wort. Photo: Les Mehrhoff, IPANE

Cynanchum rossicum – Pale Swallow-wort
Invasive herbaceous vine

Photos: Les Mehrhoff, IPANE

Egeria densa – Brazillian Water-weed
Potentially invasive aquatic plant

Submersed, freshwater, perennial herb that usually roots in substrate.

Leaves are arranged in whorls of 4 – 6 leaves (left) and have finely toothed margins (right).

Flowers have 3 white petals and can be seen from summer to fall.

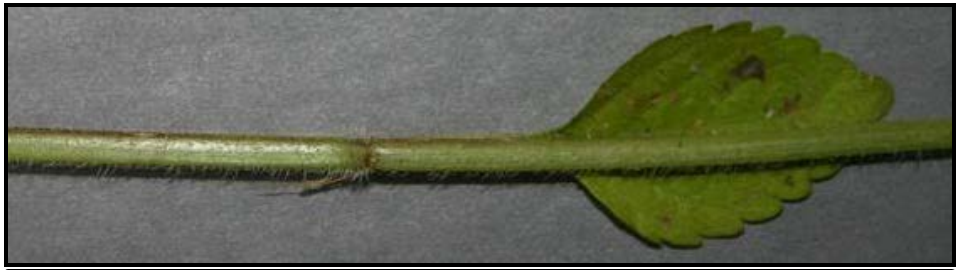
Left photo: Graves Lovell, AL DCNR, Bugwood.org. Top middle and bottom right photos: Les Mehrhoff, IPANE. Top right photo: Robert Vidéki, Doronicum Kft., Bugwood.org

Elsholtzia ciliata – Crested Late-summer Mint
Potentially invasive herbaceous plant

Pale blue flowers are produced on one side of the spikes.
Photos: Les Mehrhoff, IPANE

Invasion. Photo: Les Mehrhoff, IPANE

Crested late-summer mint foliage. Photo: Les Mehrhoff, IPANE



Leaves are opposite along the hairy stem. Photo: Les Mehrhoff, IPANE

Glyceria maxima – Reed Mannagrass
Potentially invasive grass

Rhizomatous perennial grows from unbranched stems to over 8’ high.

Inflorescence is an open panicle appearing from June to August (left). Leaf blade mid-rib is prominent (right).

Spreads primarily by means of rhizomes.

Photos: Les Mehrhoff, IPANE, Bugwood.org

Heracleum mantegazzianum – Giant Hogweed
Potentially invasive herbaceous plant

Giant hogweed can grow up to 15 feet tall.

Photos from Brooklyn, CT. Photos: Donna Ellis, UConn

Heracleum mantegazzianum – Giant Hogweed
Potentially invasive herbaceous plant

CAUTION: POISONOUS PLANT!

Giant hogweed flower

Giant hogweed foliage

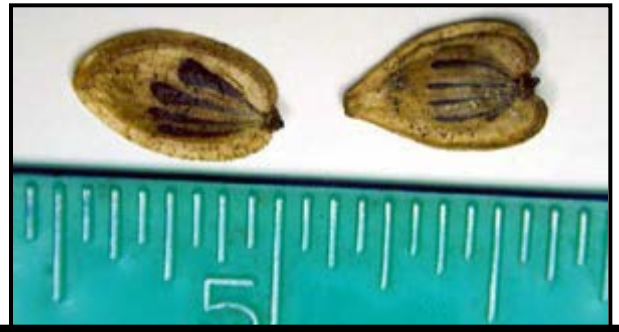
Giant hogweed fruits

Photos: Les Mehrhoff, IPANE, Bugwood.org

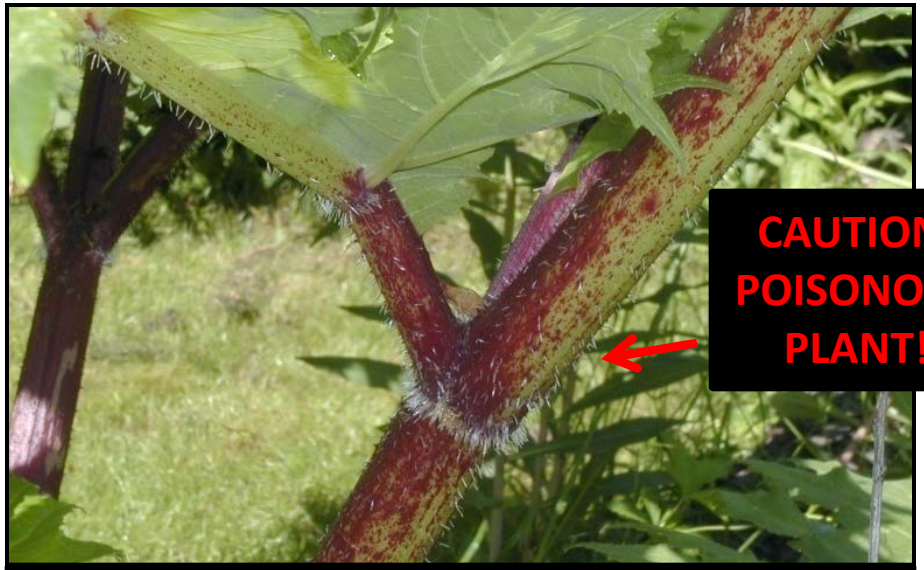
Comparison

Heracleum mantegazzianum vs. *Heracleum maximum*

Giant Hogweed (invasive) vs. Cow Parsnip (native)



Seeds of giant hogweed (left) and cow parsnip (right). Note the heart-shaped lobes of the cow parsnip seed.
Photo: Rose Hiskes, CAES



CAUTION: POISONOUS PLANT!

Giant hogweed stem. Note bristles at nodes. *Photo: Donna Ellis, UConn*

Giant hogweed stem (left). Cow parsnip stem (right).
Left *photo: Les Mehrhoff, IPANE*
Right photo: Naja Kraus, DEC-FHP, www.dot.ny.gov

Comparison

Heracleum mantegazzianum vs. *Heracleum maximum*

Giant Hogweed (invasive) vs. Cow Parsnip (native)

Giant Hogweed Traits:

- **Native Region**: Eurasia
- **Flowers:** Mid-June to July, umbrella-shaped clusters up to 2.5’ wide
- **Stems**: Ridged with reddish purple blotches, 2 – 4” inch diameter
- **Hairs:** Coarse, erect hairs in thick circle at base of leaf stalk
- **Leaves**: Deeply incised and up to 5’ wide
- **Fruit**: Oval-shaped
- **Height:** 7 to 15 feet

Cow Parsnip Traits:

- **Native Region**: Eastern North America
- **Flowers:** Late May to June, flat-topped clusters up to 1’ wide
- **Stems:** Deeply ridged, entirely green or with slightly purplish cast, 1 – 2” diameter
- **Hairs:** Fine, soft and fuzzy white hairs
- **Leaves:** Velvety appearance and between 2 – 2.5’ wide
- **Fruit:** Heart-shaped
- **Height:** 5 to 8 feet

http://cipwg.uconn.edu/wp-content/uploads/sites/244/2013/12/hog_brochure_-CTFINAL.pdf ; http://www.dec.ny.gov/animals/72766.html

Humulus japonicus – Japanese Hop
Potentially invasive herbaceous vine

Downward pointing prickles with hairs at nodes.
Photo: Chris Evans, IL Wildlife Action Plan, Bugwood.org

Female (top) and male (bottom) flowers bloom on separate plants.
Photos: Les Mehrhoff, IPANE

Humulus japonicus – Japanese Hop
Potentially invasive herbaceous vine

Japanese hop vine. Photo: Les Mehrhoff, IPANE

Leaves have 5 – 9 lobes. Left photo: Les Mehrhoff, IPANE.
Right photo: Chris Evans, IL Wildlife Action Plan

Japanese hop invasion. Photo: Les Mehrhoff, IPANE

Hydrilla verticillata – Hydrilla
Invasive aquatic plant

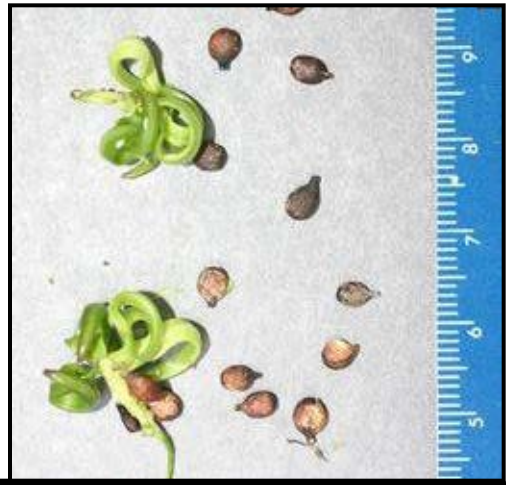
Submersed perennial plant with slender, branched stems up to 25'. ~ Five leaves per whorl with visibly toothed margins.

Reproduces by fragmentation, tubers (above), turions and seeds.

Photo inset: Tim Krynak, Cleveland Metroparks, Bugwood.org. All other photos: Les Mehrhoff, IPANE, Bugwood.org

Impatiens glandulifera – Ornamental Jewelweed
Potentially invasive herbaceous plant

Herbaceous annual that can grow over 6’ in height.



Pink to purple (sometimes white) flowers appear in summer followed by seed capsules (left). When ripened capsules are disturbed or dry up seeds are explosively released (right).

Hexagonally angled stems (left) and serrate leaf margins (right).

Left photo: Caleb Slemmons, National Ecological Observatory Network, Bugwood.org. All other photos: Les Mehrhoff, IPANE, Bugwood.org

Iris pseudacorus – Yellow Iris
Invasive herbaceous plant

Yellow iris flower. Photo: Nancy Loewenstein, Bugwood.org

Left: Yellow iris fruits. Photo: Joseph M. DiTomaso, University of California - Davis, Bugwood.org. Right: Fruit capsule opens to reveal seeds inside. Photo: Les Mehrhoff, IPANE

Yellow iris invasion along the water edge. Photo: Joseph M. DiTomaso, University of California - Davis, Bugwood.org

Iris pseudacorus – Yellow Iris
Invasive herbaceous plant

Yellow iris is an invasive plant introduced from Europe.
Photo: Logan Senack, UConn

Iris versicolor – Blue Flag Iris
Native herbaceous plant

Blue flag iris can be planted as an alternative to yellow iris.
It is native to all of New England.
Photo: John Hixson, www.wildflower.org

Lythrum salicaria – Purple Loosestrife
Invasive herbaceous plant

Purple loosestrife invasion in Wethersfield, CT. Photo: Donna Ellis, UConn

Purple loosestrife flower.
Photo: Les Mehrhoff, IPANE

Lythrum salicaria – Purple Loosestrife
Invasive plant

Purple loosestrife is an invasive plant introduced from Eurasia.
Photo: Les Mehrhoff, IPANE

Verbena hastata – Blue Vervain
Native plant

Blue vervain is native to all of New England.
Photo: Thomas Barnes, plants.usda.gov

Liatris scariosa var. novae-angliae – Blazing Star
Native plant

Blazing star is native to all of New England except VT.
Photo: Stephen M. Young, New York Heritage Program

Microstegium vimineum – Japanese Stilt Grass
Invasive grass

An extremely dense Japanese stilt grass invasion.
Photo: Chris Evans, River to River CWMA, Bugwood.org

Microstegium vimineum – Japanese Stilt Grass
Invasive grass

Yellowish to pale purple fall color of Japanese stilt grass.
Photo: Les Mehrhoff, IPANE

Japanese stilt grass foliage.
Photo: Les Mehrhoff, IPANE

Japanese stilt grass stand along a road side.
Photo: Les Mehrhoff, IPANE

Japanese stilt grass is an annual with fibrous roots.
Photo: Les Mehrhoff, IPANE

Comparison

Microstegium vimineum vs. *Leersia virginica*

Japanese Stilt Grass (invasive) vs. White Grass (native)

Japanese Stilt Grass Traits:

- **Native Region**: Asia
- **Inflorescence:** Terminal spike-like branches
- **Glumes**: Present
- **Lemma**: Awns present or absent
- **Flowering Initiation**: Mid-September
- **Nodes**: Smooth
- **Roots**: Fibrous
- **Annual/Perennial**: Annual
- **Fall Color**: Yellowish to pale purple

White Grass Traits:

- **Native Region**: Eastern N. America
- **Inflorescence**: Open panicle
- **Glumes**: Absent
- **Lemma**: Awns present
- **Flowering Initiation**: Early to mid-August
- **Nodes**: Erect hairy
- **Roots**: Scaly rhizomes
- **Annual/Perennial**: Perennial
- **Fall Color:** Green to straw-colored

Mehrhoff, L.J. 2000. Perennial Microstegium vimineum *(Poaceae): An Apparent Misidentification? J. Torrey Bot. Soc. 127: 251- 254.*

Comparison

Microstegium vimineum vs. *Leersia virginica*

Japanese Stilt Grass (invasive) vs. White Grass (native)

Comparison of terminal spike-like branches of Microstegium vimenium *(bottom) & open panicle of* Leersia virginica *(top). Photo: Les Mehrhoff, IPANE*

Japanese stilt grass flowers (left) & white grass flowers (right). Left photo: Chris Evans, Illinois Wildlife Action Plan. Right photo: Donald Cameron, gobotany/newenglandwild.org

Japanese stilt grass foliage (top) and white grass foliage (bottom). Photos: Les Mehrhoff, IPANE, Discoverlife.org

Smooth Japanese stilt grass nodes (left) and hairy white grass nodes (right). Left photo: Les Mehrhoff, IPANE. Right photo: Christopher Noll, University of Wisconsin-Stevens Point

Phalaris arundinacea – Reed Canary Grass
Invasive grass

A stand of reed canary grass. Photo: Les Mehrhoff, IPANE

Flowers are green to purple (above) and turn to beige (below) over time. Top photo: Glen Mittelhauser, gobotany.newenglandwild.org. Bottom photo: Barry Rice, sarracenia.com, Bugwood.org

Close-up of green- purple inflorescence. Photo: Joseph M. DiTomaso, University of California - Davis, Bugwood.org

Phalaris arundinacea – Reed Canary Grass
Invasive grass

The transparent ligule distinguishes reed canary grass from native grasses. Photo: Caleb Slemmons, University of Wisconsin, Stevens Point, Bugwood.org

Reed canary grass can grow more than 6 feet tall. Photo: Jamie Nielsen, University of Alaska Fairbanks, Cooperative Extension Service, Bugwood.org

Variegated forms of reed canary grass can spread from gardens.
Photo: John M. Randall, The Nature Conservancy, Bugwood.org

Stems are hairless.
Photo: Rob Routledge, Sault College, Bugwood.org

Reed canary grass spreads aggressively through underground rhizomes.
Photo: Les Mehrhoff, IPANE

Persicaria perfoliata – Mile-a-minute Vine
Invasive herbaceous vine

Mile-a-minute fruits in Bristol, CT.

A dense mile-a-minute invasion in Fairfield, CT.

Photos: Logan Senack, UConn

Comparison

Persicaria perfoliata vs. *Polygonum arifolium & Polygonum sagittatum*

Mile-a-minute Vine vs. Native Tearthumbs

Mile-a-minute vine has (1) triangular leaves, (2) curved barbs, and (3) ocrea (saucer shaped leaves that encircle the stem at the nodes)

*Halberd-leaved tearthumb (*Polygonum arifolium*)*

*Arrow-leaved tearthumb (*Polygonum sagittatum*)*

Left & bottom-right photos: Logan Senack , UConn
Top-right photo: Donna Ellis, UConn

Comparison

Persicaria perfoliata vs. *Vitis* spp. & *Calystegia sepium*

Mile-a-minute Vine vs. Grape spp. & Hedge Bindweed

Mile-a-minute leaves.
Photo: Les Mehrhoff, IPANE

*Grape leaf close-up (*Vitis *spp.).*
Photo: Logan Senack, UConn

*Hedge bindweed (*Calystegia sepium*).*
Photo: Janet Novak © 2001, CT Botanical Society

Comparison

Persicaria perfoliata vs. *Calystegia sepium*

Mile-a-minute Vine vs. Hedge Bindweed (native)

Triangular leaves with pointed tips and angular, heart-shaped base. Photo: Donna Ellis, UConn

Intertwining leaves. Photo: Nicole Gabelman, UConn

Leaf shape comparison.
Left: Hedge bindweed. Photo: Logan Senack, UConn.
Right: Mile-a-minute. Photo: Todd Mervosh, CAES

Hedge bindweed forming a dense patch of vines in Danbury, CT. Photo: Donna Ellis, UConn

Comparison

Persicaria perfoliata vs. *Convolvulus arvensis*

Mile-a-minute Vine vs. Field Bindweed

Mile-a-minute leaf.
Photo: Todd Mervosh, CAES

Leaf comparison of field bindweed (left) and hedge bindweed (right). Photo: Ohio State Weed Lab Archive, Weedimages.org

Field bindweed. Photo: Donna Ellis, UConn

Field bindweed foliage and flower.
Photo: Pedro Tenorio-Lezama, Weedimages.org

Comparison

Persicaria perfoliata vs. *Fallopia scandens* & *Fallopia convolvulus*

Mile-a-minute Vine vs. Climbing False Buckwheat & Black Bindweed

Close-up of native climbing false buckwheat leaf.
Photo: Nicole Gabelman, UConn

Black bindweed plant. Photo: Lynn Sosnoskie, University of Georgia, Weedimages.org

Native climbing false buckwheat flowers and winged fruits.
Photo: Logan Senack, UConn

Black bindweed flowers.
Photo: Richard Old, Bugwood.org

Phragmites australis – Phragmites (Common Reed)
Invasive grass

Phragmites incursion. Photo: Donna Ellis, UConn

Phragmites spreads by runners and rhizomes.
Photo: Les Mehrhoff, IPANE

Left: Phragmites inflorescence. Right: Phragmites stem.
Photos: Les Mehrhoff, IPANE

Phragmites australis – Phragmites (Common Reed)
Invasive grass

Photos: Donna Ellis, UConn

Phragmites australis – Phragmites (Common Reed)
Invasive grass

Phragmites invasion. Photo: Les Mehrhoff, IPANE

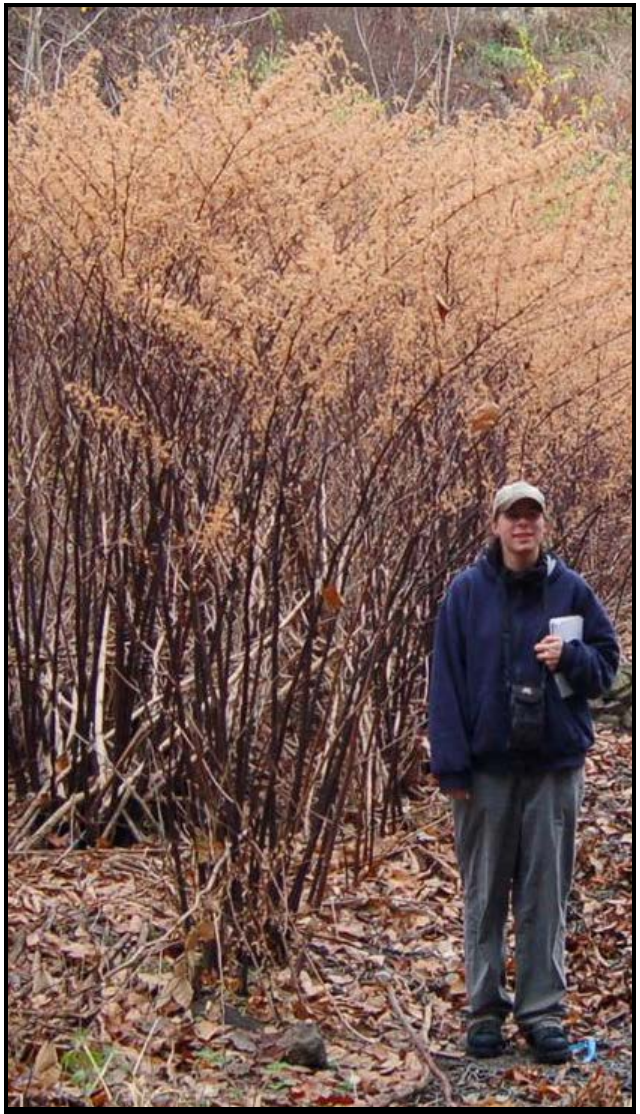
Polygonum cuspidatum – Japanese Knotweed
Invasive herbaceous plant

Top left: Close up of Japanese knotweed inflorescence. Top right: Fruits. Photos: Les Mehrhoff, IPANE.
Center: A dense Japanese knotweed incursion. Photo: Donna Ellis, UConn

Polygonum cuspidatum – Japanese Knotweed
Invasive herbaceous plant

Japanese knotweed along the road side. Photo: Donna Ellis, UConn

Polygonum cuspidatum – Japanese Knotweed
Invasive herbaceous plant



Stand of Japanese knotweed. Photo: James H. Miller, USDA Forest Service, Bugwood.org

Top: Nodes are swollen along stem. Bottom: Stems are hollow and reddish brown in color. Photos: Les Mehrhoff, IPANE

Japanese knotweed leaf shape. Photo: Steve Manning, Invasive Plant Control, Bugwood.org

Leaves are alternate. Photo: Donna Ellis, UConn

Senecio jacobaea – Tansy Ragwort
Potentially invasive herbaceous plant

Biennial with first year rosette (inset) and second year stalk up to 3’.

Leaves are alternate with oblong/web-shaped lobed and dentate margins.

Numerous yellow flower heads with 12-15 rays appear July – Oct. (left). Fruits are light brown achenes (right).

Left photos: Joseph M. DiTomaso, University of California - Davis, Bugwood.org. All other photos: Les Mehrhoff, IPANE, Bugwood.org