

Wall Lettuce

Mycelis muralis



General Description:

- Perennial: 2-3' tall
- Leaves: Deeply lobed with a large triangular tip, forming a basal rosette; upper leaves are smaller and simpler.
- Stem: Branches near the top; when broken, they exude a milky fluid that **can irritate the skin**

Prominent Features:

- Unique leaf shape: a **large triangular lobe** at the end and bases that clasp the stem
- Flowers: Small, light yellow, with 5 narrow petals that have tiny teeth at the tips, appearing in June.
- Seeds: Have white bristly hairs attached

How to Remove:

- Hand-pull the **entire** root system

Look Alike: Aster Family

- Wall Lettuce has 5-rayed flowers, other asters have more
- Other Aster leaves don't have large triangular lobe



Wall Lettuce

Mycelis muralis



Creeping Buttercup

Ranunculus repens



General Description:

- Perennial: ~1' long, **roots at nodes** along soil surface
- Leaves: Dark green with white, blotchy markings, divided in to leaflets then subleaflets, appearing to have 9 sharply toothed segments, on long hairy petioles
- Flower: Large bright yellow, 5 petals, sepals with stiff hair

Prominent Features:

- Flowers: Showy, bright yellow, with hairy green underside (sepals)
- Stem nodes can produce roots (stolon)

How to Remove:

- Hand-pull the **entire** root system before seeds set
- Cover in 2-5" mulch after pulling

Look Alikes: Other Buttercups

- Not a “runner”- no stolons
- Basal leaves present

Creeping Buttercup

Ranunculus repens



Water Chestnut

Trapa natans



General Description:

- Leaves: **Toothed edges and triangular shape**; form a rosette, green, glossy; the submerged leaves are feathery and whorled around the stem.
- Stem: Stems can be 12-15' long, hollow, air-filled, and cord-like.

Prominent Features:

- Leaves: Rosette of sharply toothed, triangular floating leaves forming a dense circular cluster at the water's surface.
- Fruits: Hard, **spiky nutlets** (“devil nuts”) underwater with sharp barbs. Green-brown in color.

How to Remove:

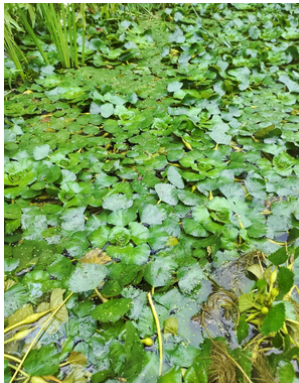
- Hand-pull the **entire** root system, ideally **earlier in the season** (less biomass to return to shore)
- Caution: Any activities in aquatic systems require a permit under your local bylaws. ***Speak to your local Conservation Commission before pulling.***

Look Alikes: None



Water Chestnut

Trapa natans



Porcelain Berry

Ampelopsis glandulosa var. *brevipedunculata*



General Description:

- Vine: > 25' long, up to 4" thick
- Leaves: Toothed edges and pointed tips; heart-shaped/deeply lobed; leaf undersides are hairy. **A lot of variation in shape**
- Stem: New stems are squarish, light green, & hairy with **nodes & tendrils**; older stems develop **gray dots**, rough bark, **pith = porcelain white**

Prominent Features:

- Fruits: **Shiny, speckled berries** that resemble porcelain. Berries can be a variety of colors (**pale blue, lilac, pink, cream, violet, bright turquoise, etc.**)
- White pith

How to Remove:

- Properly contain berries first to prevent seed dispersal
- Hand-pull young vines

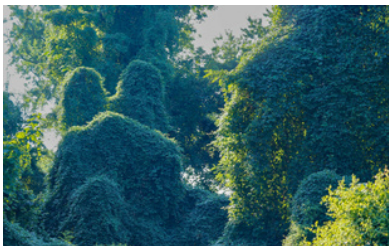
Look Alikes: Native Grape Species

- **Brown pith** with no gray patches/dots on bark



Porcelain Berry

Ampelopsis glandulosa var. *brevipedunculata*



Asiatic Bittersweet

Celastrus orbiculatus



General Description:

- Vine: Can be 10" wide & 60' long
- Leaves: Alternate, **round**, & finely toothed edges
- Stem: Green when young; tan & furrowed when mature, **twining habit**
- Flowers: Tiny, green flowers at **leaf axils**

Prominent Features:

- Vibrant **orange** roots
- Three-valved, yellow capsules with bright **red berries** inside

How to Remove:

- Pull seedlings by hand
- Roots run laterally under the soil; can be carefully dug out to smallest root fragment possible

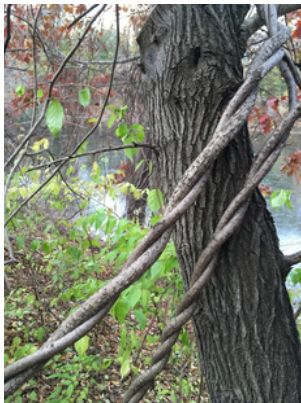
Look Alike: American Bittersweet

- Flowers/Fruit: One fruit cluster at stem **tips**
- Leaves: Twice as long as wide, and ends taper gradually vs dramatically



Asiatic Bittersweet

Celastrus orbiculatus



Black Swallowwort

Cynanchum louiseae



General Description:

- Vine: Perennial, 3-6' long, with rhizomes
- Leaves: Opposite, oval with pointed tips, 3-4" long, entire margin
- Stem: Mostly unbranched, twining
- Flowers: Purple-black, 5 petals, fleshy
- Fruit: Slender pods green to light brown with age, milkweed like

Prominent Features:

- Flowers: **purple-black**
- Twining habit vs. tendrils, aerial roots to climb
- Leaf tips taper to a point

How to Remove:

- Pull out and dig the **entire root system for small populations**

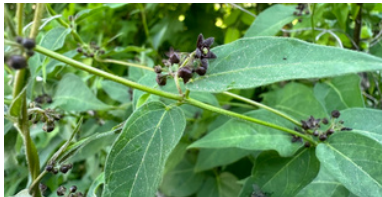
Look Alikes: Several

- Other Swallowworts: flowers are white, pink-red
- Vinca spp.: stems don't twine, leaf tips don't taper



Black Swallowwort

Cynanchum louiseae



Japanese Hops

Humulus scandens



General Description:

- Annual Vine: 8-35' long
- Leaves: Opposite, 2 per node, palmate generally 5 lobed, serrated margins, stiff hairs on the upper surface and along the veins on the lower surface
- Stem: Green to red, twining, downward facing hairs
- Flowers: 5-petal, green flowers **at leaf axils**

Prominent Features:

- Leaves: Rough to the touch with typically 5 lobes (3-7); upper leaves may have fewer
- Petioles are as long or longer than the leaf
- Male and female plants present fruit differently, upright panicle (M) and nodding cone-like spikes (F)
- Fruit: Resembles cultivated hops but not good for brewing

How to Remove:

- Hand-pull before seeds set
- **Note: May cause mild dermatitis**

Look Alikes: None



Japanese Hops

Humulus scandens



Mile-A-Minute

Persicaria perfoliata



General Description:

- Vine: Up to 25' long, leaves are 0.75 - 3.0"
- Leaves: Pale bluish-green **equilateral triangles, saucer-shaped leaves (ocrea)** at stem nodes
- Stem: Narrow, reddish-green stems with **curved barbs**
- Flowers: Inconspicuous, pale green flowers

Prominent Features:

- Fruits: Ripened berries are **blue/purple**, found in the cup-like bracts of the plant; unripened are pale green
- **Unique equilateral triangular leaves**

How to Remove:

- Contain berries first to prevent further dispersal
- Manually pull all vines out to remove root system prior to setting seeds

Look Alikes: Field/Hedge Bindweed

- These look-alikes do not have the perfectly equilateral leaf shape; also darker in color
- Lack of ocrea leaves and barbed stems



Mile-A-Minute

Persicaria perfoliata



Kudzu

Pueraria montana var. *lobata*



General Description:

- Vine: Perennial that grows up to 100' long
- Leaves: Alternate, compound leaves with **3 broad leaflets**; leaflets are 4-6" and have **fuzzy/hairy** undersides
- Stem: Green when young; mature stems are dark brown with white pith

Prominent Features:

- Flowers: **Reddish-purple**, grape-like scent; **shaped like a pea plant flower**
 - Bloom in mid-summer
- Fruits: Flat, hairy, green/brown pods up to 8" long

How to Remove:

- Pull out and dig the **entire root system** in **spring/summer**
- Repeat mowing/cutting; goats

Look Alike: Native Hog-Peanut (*Amphicarpaea bracteata*)

- Pale violet-white flowers
- Much smaller (6' tall) than Kudzu



Kudzu

Pueraria montana var. lobata



Poison Ivy

Toxicodendron radicans



General Description:

- Vine: Deciduous woody vine
- Leaves: **3 leaflets**, each ~4" long; margins and shape vary but are often egg shaped. **Petiолule short except middle leaflet**
- Stem: Climbs via aerial roots; older plants' aerial roots appear hairy
- Flowers: Nondescript, small on axillary panicles

Prominent Features:

- Leaves: Can have gentle shine, turn red to orange in fall
- **Hairy aerial roots**

How to Remove:

- Hand-pull before seeds set.
- **Causes rash; wear protective clothing**

Look Alikes: Several

- Virginia Creeper: 5 leaflets per leaf (not 3); climbs by tendrils
- Poison Oak: 3 leaflets that appear more oak like with rounder lobes; shrub. **Causes rash**



Poison Ivy

Toxicodendron radicans



Japanese Barberry

Berberis thunbergii



General Description:

- Shrub: Thorny, deciduous; ~5-8' tall
- Leaves: Very small (1/2 x 1/2"), oval, green, bluish-green, or dark reddish-purple
- Stem: Brown, deeply grooved, and bears a single very sharp spine at each node

Prominent Features:

- Fruit: Bright red berries ~1/3" long on narrow stalks
- Needle-like spine at each node
- Note: Barberry shelters ticks, which cause Lyme disease

How to Remove:

- Small plants: Wear thick gloves to pull by hand; **thorny!**
- Larger plants: Cut to the stump and use a tool such as a weed wrench/shovel to uproot plants

Look Alikes: Common barberry (*B. vulgaris*)

- Also invasive but not very common in Massachusetts
- Leaves have toothed margins, spine branches at nodes



Japanese Barberry

Berberis thunbergii



Russian Olive

Elaeagnus angustifolia



General Description:

- Shrub: 20-25' tall (large shrub/small tree)
- Leaves: Long, narrow, **green to silvery top and dense silver scales bottom**
- Bark: Twigs slender, thorny, and silver in first year
 - Older stem bark: smooth and reddish brown
 - Pith: pale brown to orange brown
- Fruit: Drupelike, light green to yellow silver scales

Prominent Features:

- Leaves: Green to silver on top and silver on bottom
- Bark: Old bark densely fissured
- Fruit: Olive like and silver

How to Remove:

- Hand-pull or use weed wrench for smaller plants
- No manual-only option for large trees

Look Alike: Autumn Olive (*E. umbellata*)

- Leaves: Green nonscaly above and green/silver scales below. Overall less silvery.



Russian Olive

Elaeagnus angustifolia



Autumn Olive

Elaeagnus umbellata



General Description:

- Shrub: 20-25' tall, multi-stem large shrub/small tree
- Leaves: Alternate, lance-shaped, smooth margined, dull green or **green/gray top and silvery bottom**
- Bark: Young twigs are **silvery with brownish scales** (speckle appearance). **Thorns** may be several inches long. With age, bark turns to light gray/gray-brown.
- Flowers: White to yellow, 4 petals
- Fruit: Red/brown to pink dotted with brown or silvery scales

Prominent Features:

- Leaves: **Silver on bottom, speckled silver on top**
- Typically found in nutrient poor habitats

How to Remove:

- Hand-pull or use weed wrench for smaller plants
- No manual-only option for large trees

Look Alike: Russian Olive (*E. angustifolia*)

- Leaves: Green to silvery top and dense silver scales bottom. All aspects of the plant are silvery



Autumn Olive

Elaeagnus umbellata



Thorns



Glossy Buckthorn

Frangula alnus



General Description:

- Shrub: 20-25' tall, single-stem (or multi-stem shrub)
- Leaves: Alternate, thin, glossy, smooth-edged, and ovate/elliptic; prominent veins
- Bark: Gray or brown with elongated pale lenticels; twigs arched or curved
- Winter Buds: Lack scales and rust colored

Prominent Features:

- Leaves: Glossy, smooth margin
- Roots: Maroon in color
- Fruit: Small berries, green, red, or black
- White spots (lenticels) more obvious on younger bark

How to Remove:

- Hand-pull or use weed wrench for smaller plants
- No manual-only option for large trees

Look Alike: Several

- Common Buckthorn: Leaves opposite, serrated margins
- Black Cherry: Leaves finely toothed; twigs have bitter almond scent



Glossy Buckthorn

Frangula alnus



Burning Bush/Winged Euonymus

Euonymus alatus



General Description:

- Shrub: Up to 22' tall and 12' wide
- Leaves: **Elliptical** in shape with toothed margins
- Stem: Corky ridges form along the green twigs, giving the branches a “**winged**” appearance
- Seed/Fruit: Red-purple fruits

Prominent Features:

- Leaves: Vibrant **scarlet color** in the fall
- Stem: Flat, **wing-like structure** on the branches
- Fruit: Purple/red capsules with an **orange seed** inside

How to Remove:

- Remove young seedlings by hand
- A tool such as a weed wrench can be very effective in uprooting plants

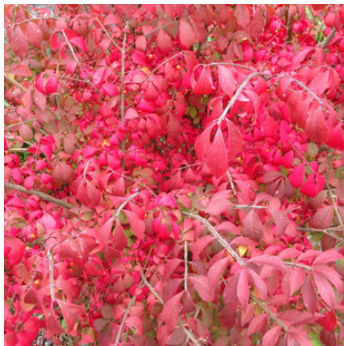
Look Alike: Blueberry (*Vaccinium sp.*)

- Stems look ‘busy’ as they are alternate not opposite
- Older bark turns grayish and doesn’t have the corky growth



Burning Bush/Winged Euonymus

Euonymus alatus



Bush Honeysuckles

Lonicera maackii, *L. morrowii*, *L. tatarica*



General Description:

- Deciduous Shrub: ~6-15' tall
- Leaves: 1-2½", smooth leaves, opposite and short-stalked
- Stem: Hollow in older plants, color is a dull brown
- Flowers: Pink to white (fading to orange) **at leaf axils**

Prominent Features:

- Seed/Fruit: Vibrant red to orange in color
- Flowers: Small, creamy white, pink, or crimson, tube-shaped flowers along the stem (two per leaf)
- Leaves, flowers, fruit all are **sets of two**
- **Two terminal leaves**

How to Remove:

- Pull small plants by hand or with spade or weed wrench

Look Alikes: Native Honeysuckle (*Diervilla lonicera*)

- Native Honeysuckle has **terminal clusters** of yellow to orange flowers
- Invasives have a **hollow stem**; natives do not



Bush Honeysuckles

Lonicera maackii, *L. morrowii*, *L. tatarica*



Common Buckthorn

Rhamnus cathartica



General Description:

- Shrub: 20-25' tall, single (or multi-stem shrub/small tree)
- Leaves: Oval, dark green, **prominent lateral veins**, finely serrated edges
- Bark: Gray or brown with rough texture; inner bark is bright orange; twigs often end in sharp, thorn-like tips
- Fruit: **Toxic**, dark purple to black

Prominent Features:

- Leaves: Oval, finely serrated margin
- Bark: Inner bark bright orange

How to Remove:

- Hand-pull or use weed wrench for smaller plants
- No manual-only option for large trees

Look Alike: Several

- Glossy Buckthorn: Leaves alternate, smooth margins
- Black Cherry: Leaves finely toothed, twigs have bitter almond scent



Common Buckthorn

Rhamnus cathartica



Multiflora Rose

Rosa multiflora



General Description:

- Shrub: Up to 15' tall
- Leaves: Opposite, pointed ellipse shape with toothed edges; 5 to 11 leaves per branch
- Stem: Green to red; stiff; curved thorns pointed toward roots
- Seed/Fruit: Small **red fruits** = rose hips

Prominent Features:

- Thorns: Hook **toward roots**
- Stipules: **feathery** margins
- Flowers: Clusters of 1", fragrant, pink/white flowers with a yellow center

How to Remove:

- Wear thick gloves; **cut to the stem** and pull out the roots
- Use a weed wrench or shovel when uprooting plants
- Hand-pull smaller individuals

Look Alikes: Native and Cultivated Roses

- Other roses: Thorns don't point to root, stipule margins smooth, **larger flowers either solitary or small clusters**



Multiflora Rose

Rosa multiflora



Tree of Heaven

Ailanthus altissima



General Description:

- Tree: A fast-growing clonal tree, up to 80' tall
- Leaves: Big, with many leaflets (10-41); smooth edges; **bad smell when crushed**; leaflets have 1-5 teeth at base
- Stem: Smooth gray/chestnut bark that resembles cantaloupe skin as it ages
- Flowers: Small yellow-green clusters
- *Tree of Heaven supports invasive spotted lanternfly*

Prominent Features:

- Foul-smelling leaves, twigs, and (male) flowers
- Fruit: Samara (flat, papery, winged fruit)
- **Thumb-like glandular teeth at base of leaf**, no other serrations

How to Remove:

- Pull small plants by hand; remove **entire** root system.
- No manual-only option for large trees

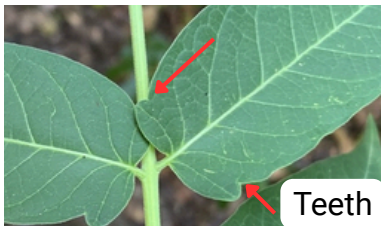
Look Alikes: Sumac, Ash, Hickory, and Walnut species

- Do not have rotten/burnt smell
- May have serrated leaves; Tree of Heaven **does not**



Tree of Heaven

Ailanthus altissima



Amur Corktree

Phellodendron amurense



General Description:

- Tree: 35-50' tall
- Leaves: Compound leaves with 5-13 leaflets (2.5-4.5"); leaves are 10-15' long; yellow in fall, **smell like turpentine when crushed**
- Bark: Ridged, soft, and corky outer bark
- Flowers: Small yellow-green flowers (late May–June) that mature into clustered fruits on female trees only

Prominent Features:

- Inner bark is **bright yellow**
- Fruit: Mature fruits look like **green-black peas**

How to Remove:

- Hand-pull small plants
- No manual-only option for large trees

Look Alike: Native Ash Trees (*Fraxinus spp.*)

- Amur Corktree has significantly more ridged and irregular bark, and fruit is pea-like
- Ash fruit are narrow, winged, samara



Amur Corktree

Phellodendron amurense



Callery Pear

Pyrus calleryana



General Description:

- Tree: 20–30' tall
- Leaves: Alternating, **glossy/waxy** oblong leaves with small, round-toothed margins; dark green in the summer, red/purple in fall
- Bark: Smooth gray-brown, with **thorny spurs**
- Flowers: Showy, clustered, white, foul scent

Prominent Features:

- Flowers: Clustered, 3/4" wide, with 5 petals and yellow stamens in the center
- Fruit: Small brown fruits on long stems, like cherries
- Spurs: **Sharp**, woody growths protruding from stems

How to Remove:

- Hand-pull small plants
- No manual-only option for large trees

Look Alike: Common Pear (*P. communis*)

- Large fruit=Common Pear ; Small fruit=Callery Pear



Callery Pear

Pyrus calleryana



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