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# Common vine quick review in Westchester





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# Invasive Bittersweet

## Invasive bittersweet (*Celastrus orbiculatus*)

- Vine, twines around other plants like a corkscrew
- Leaves alternate, rounded and toothed
- Leaves feel smooth, waxy
- Fruit is hard berries - orange to red when ripe
- Additional check: has orange root

## Recommended Management Practice:

- For large vines, cut at base and again at eye height prior to fruiting in September\*
- **Do not pull off entire large vines from tree;** leave large vines after cutting\*
- For smaller vines, hand pull or dig roots and dispose of properly\*



**Hand pull  
roots**



**Cut before  
September**





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# Japanese Honeysuckle Vine

## Invasive honeysuckle vine (*Lonicera japonica*)

- Vine, trails along ground or twines around other plants
- Thin stems with pairs of leaves arranged opposite of each other along branch (looks like string with bow ties or airplane propellers)
- Leaves oval, rounded, smooth edges
- Has fruit in pairs, juicy red berry

## Recommended Management Practice:

- Pull vines and roots and dispose of properly prior to fruiting in September\*



**Hand pull  
roots before  
September**



# Mile-a-minute

## *Persicaria perfoliata*

### Mile-a-minute (*Persicaria perfoliata*)

- Triangular leaves
- Curved prickles along the stem & leaf stalks
- Mint green color
- Fruit: blue berry ripening in July
- Stems have round leaf-like stipule- looks like saucer for a teacup



**Hand pull  
roots before  
July**



### Recommended Management Practice:

- Annual species- pull vines (using gloves) and dispose of properly prior to fruiting in July\*

## English ivy *Hedera helix*

### WHAT TO LOOK FOR:

- Evergreen perennial climbing or trailing vine
- Vine clings to surfaces with root-like structures
- Leaves alternate, dark green, light veins, waxy
- Juvenile leaves are deeply 3-5 lobed; adult leaves are primarily unlobed
- Sap can cause a rash
- Small yellow/green flowers in the fall
- Purple/black berries late winter



James H. Miller, USDA FS



Chris Evans, River to River  
CWMA



Kingcounty.gov

# Porcelainberry

## *Ampelopsis brevipedunculata*

- Grape vine-like, with tendrils
- Twining woody vine with large simple leaves, variable, often with deep lobes.
- Leaves green beneath



- Multi-colored hard berries, approximately pea-sized



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# Native grapes: Look alike alert!

## Native Grapes

- Underside of leaf is whitish on some spp. some are green beneath
- Fruit hangs down in grape-like cluster
- Mature stems have purplish bark that flakes off in strips



# Porcelainberry: Key ID

- Porcelainberries **held erect** in flat-topped cluster
- Mature **bark does not flake off**, has lenticels (dots on stem)







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# Emerging vines in Westchester





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# Hardy kiwi

## *Actinidia arguta*



Q Qwert, Bugwood.org



Mass Audubon

- Alternate branching
- Leaves simple, ovate, finely serrate
- **Red/pink petioles**
- Flowers late spring/early summer
- Fruits are grape-sized and green



Sten Porse, Bugwood.org

# Kudzu

## *Pueraria montana*



James H. Miller, USDA Forest Service, Bugwood.org



Forest and Kim Starr, Starr Environmental, Bugwood.org



Rebekah D. Wallace, University of Georgia, Bugwood.org

- Semi woody vine, up to 100' long
- Alternate branching
- Leaf shape variable; can be tear-drop or lobed, leaf margin entire with hairy edges
- Purple, fragrant flowers in July-August
- Vine itself is hairy, distinct hairy seed pods



David J. Moorhead, University of Georgia, Bugwood.org



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# Kudzu: Behavior

- Climbing or trailing semi-woody perennial vine
- Up to 100' long
- Stems up to 2" thick
- Fleshy tap root up to 7" wide and 9' deep,



Kerry Britton, USDA Forest Service, Bugwood.org



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# Kudzu: Look alike

## POISON IVY (Toxicodendron radicans)



Brett Marshall, Sault College, Bugwood.org

**-Leaf margins are toothed** on P.I. whereas kudzu leaf margin is entire  
-Inconspicuous flowers in May-June  
-Fruits are berries, as opposed to hairy seed pods

# Japanese hops

## *Humulus japonicus*



### Common Hop (*Humulus lupulus*)

A perennial vine best-known for its use in flavoring beer.



Photo © deboas, CC BY 4.0.

Leaves usually 3-lobed, occasionally 5-lobed or unlobed, rarely more than 5 lobes.

### Japanese Hop (*Humulus japonicus*)

An annual vine native to east Asia, invasive at numerous locations across eastern North America, especially in the northeast.



Photo © jeffreyawick, Public Domain.

Leaves usually have 5-7 lobes, rarely 3 or 9.

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

- Opposite, toothed leaves with 5-9 lobes; rough to the touch; on long petioles with no tendrils
- Common hop 3-5 lobes
- Japanese hops stems have small prickles



# Japanese hops vs. Common hop

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## Common Hop (*Humulus lupulus*)



Sinuses between lobes are usually rounded.

Photo © Alison Northup, CC BY 4.0.



Fruit concealed by overlapping bracts (leaf-like structures) on fruiting spikes, making the spike look more rounded and conelike. Inflorescence bracts enclose 2 fruits each.

Photo © Spencer, CC BY 4.0.

## Japanese Hop (*Humulus japonicus*)



Sinuses between lobes usually end at an acute angle.

Photo © Ira Gershenhorn, Public Domain.



Bracts of fruiting spikes curl outward, leaving fruit visible, and making the spike as a whole look more sharp-pointed. Each bract encloses only one fruit.

Photo © David, CC BY-SA 4.0.

# Japanese hops: Look alike

**Common hops**  
(*Humulus lupulus*)



David Gent, USDA Agricultural Research Service,  
Bugwood.org

**Virginia creeper**  
(*Parthenocissus quinquefolia*)



John Cardina, The Ohio State University, Bugwood.org

- Common hops has 3-lobes
- Virginia creeper has 5 leaflets, tendrils and no thorns





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# Japanese/Chinese Wisterias

## *Wisteria spp.*

### WHAT TO LOOK FOR:

- Twining woody vine with compound leaves
- Leaflets untoothed,
- WAVY leaves
- Terminal leaflet
- Leaves alternate
- Purple flowers in May
- Seed pod is bean-like, large, green and hairy



# #KNOWTHEDIFFERENCE

Exotic wisterias will readily hybridize with each other and are difficult to distinguish. Native wisteria will not hybridize with exotics and maintains a lower profile.

## INVASIVE



### exotic wisterias

(*Wisteria sinensis*, *W. floribunda*, hybrids)

- Very aggressive growth- climbs up to 40 ft. in height;
- Seed pods velvety, covered in short hairs;
- Less cold-tolerant, blooming in Spring typically;
- Clusters of flowers growing to 20 in. in length.

## NATIVE



### American wisteria

(*Wisteria frutescens*)

- Will climb, but has more shrub-like growth tendency;
- Seed pods smooth and hairless;
- Blooms slightly later in year (June-July); will sometimes bloom again in fall;
- Clusters of flowers are shorter, rounder, more compact (shaped like a pine cone).



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# Wisteria: Japanese vs Chinese



Ch<sub>inese</sub> = Ch<sub>eck</sub> mark

# Japanese virgin's bower/sweet autumn clematis

## *Clematis terniflora*

- Perennial twining vine in buttercup family
- Oppositely arranged compound leaves, 3-5 leaflets
- White corkscrew seedheads
- Blooms Aug.-Sept. fragrant white flowers



*Clematis (terniflora)* blanketing roadside vegetation on Spring Street in Darlington, SC.  
Terasa M. Lott, Clemson Extension



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**Mostly 3 Leaflets  
Per Leaf**

**Native**

**Virgin's Bower**  
*Clematis virginiana*



Photo Credit: Becky Dill CCO

**Mostly 5 Leaflets  
Per Leaf**

**Invasive**

**Autumn Clematis**  
*Clematis ternifolia*



Photo Credit: Michael Ellis CC-BY

**Toothed  
Leaflet Margins**

**Smooth  
Leaflet Margins**

# Wintercreeper/Fortune's spindle

## *Euonymus fortunei*

- Spreading groundcover or clinging vine
- Glossy waxy look to leaves
- Opposite leaf arrangement
- Distinct whitish veins along axis
- Toothed margins



Photo credits: umd.edu, mortonarb.org

# Chocolate Vine

## *Akebia quinata*

- Green stem turns woody and brown with age
- Alternate branching
- Palmately compound leaves
  - Five ovate waxy leaves
- Blooms spring/early summer
  - Fragrant
  - Blooms spring
- Purple brown seed pods rare





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# Chocolate vine Threat

- Fast growing (up to 40'/season)
- Aggressive, forms dense stands
- Ground cover and smothers trees
- Tolerant of a range of soil and sun conditions, and drought
- Ornamental
- Vegetative and bird dispersed



Christel Walker





# Cinnamon Vine/Air Potato/Chinese Yam

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## *Dioscorea polystachya*

- Pointed, heart shaped opposite leaves
- Vine spirals counter clockwise
- Air tubers present from June-September-look like little potatoes!
  - Native yams don't have aerial tubers and spiral clockwise
- Small white/greenish yellow flower spikes (smell like cinnamon)



Troy Evans, Great Smoky Mountains National Park, Bugwood.org



Chris Evans, Illinois Wildlife Action Plan, Bugwood.org





# General Management

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- For young plants, use tools to loosen soil and gently tease out roots. This is easiest to do after a rain and in non-rocky soil
- Manage mature plants before they fruit
- Larger/older vines' root removal causes extensive soil disturbance. Cut large vines high and low multiple times throughout the growing season
- Do not pull down vertically growing vines
- Make brush piles on non-soil surfaces
- Monitor and retreat areas frequently (every few weeks) during the growing season
- Multiyear effort to deplete the seed bank and root fragments left behind





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# Management Tools

- Tools
  - Pick mattock/shovel
  - Hand saw
  - Pruners/pruners
  - Tarp
  - Weed whacker
- Protective equipment
  - Eye protection
  - Rubber coated thin gloves
  - Leather gloves
  - Long sleeves
  - Long pants
  - Sturdy shoes
  - Hard hat



# Herbicidal Management



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- Can apply on personal private property without a license in NY
- Systemic active ingredients glyphosate and triclopyr
- Cut stump – concentrated herbicide applied to freshly cut and clean stumps
- Basal bark – concentrated herbicide is applied to the lower part of bark
- Foliar spray – low concentration of herbicide is applied to leaves
- Read the label and safety data sheet in full. The label is the law
- 2(ee) label addendums for species that are not on the product label



# Management Grouping 1



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- Hardy roots, hardy stems, perennial
  - Cut high at a comfortable height and cut low
  - Pull/dig what you can
  - Monitor/management every few weeks
- Bittersweet
  - Flowers May, fruits August
- Hardy kiwi
  - Flowers May, fruits September
- Japanese honeysuckle
  - Flowers May, fruits September
- Japanese virgin's bower
  - Flowers August, fruits October
- Porcelainberry
  - Flowers June, fruits September
- Wintercreeper
  - Flowers May, fruits October
- Wisteria
  - Flowers May, fruits September



Photo: Alliance for the Chesapeake Bay



# Management Grouping 2

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- Hardy roots, delicate stems, perennial
  - Cut high at a comfortable height and cut low
  - Do not pull unless plants are very young or soil is very loose
  - Dig what you can
  - Monitor and continue management every few weeks
- Chinese yam
  - Can resprout from bulbils and deep tubers
  - Air bulbils can start new plants
  - Flowers June, fruits August
- Chocolate vine
  - Flowers May, fruits September



Photo: Trees Atlanta

# Management Grouping 3



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- Shallow roots, delicate stems, annual
  - Removal before seed set is very effective
  - Removal after seed set is futile
- Japanese hops
  - Covered in tiny hairs that irritate skin
  - Flowers and fruits July-August
- Mile-a-minute
  - Small curved prickles along the stem
  - Flowers July, fruits September



Photo: NH Dept of Agriculture



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# English ivy

- Climbing vines
  - Use a handsaw or pruners to cut high and low, careful not to cut into the tree
  - Carefully peel ivy off tree
  - Monitor/retreat every few weeks
- Groundcover
  - Use a shovel to cut strip
  - Rake back leaves along strip
  - Roll back strip, pulling roots horizontally as you go
  - Monitor/retreat every few weeks
- Flowers September, fruits October-November



[TreesAtlanta.org](http://TreesAtlanta.org)



[PiedmontMasterGardeners.org](http://PiedmontMasterGardeners.org)



# Kudzu

- Dig to expose the base of the root crown
- Cut below the root crown, above tubers
- Kudzu cannot regrow from below the root crown, but buried vines can root and produce new shoots
- Flowers August, fruits October

