## **Invasive Species Reference**

**Terrestrial Invasive Plants** 

Invasive Strike Force:

Blockbuster

2018







#### 

Ailanthus altissima

#### **Detailed ID Notes:**

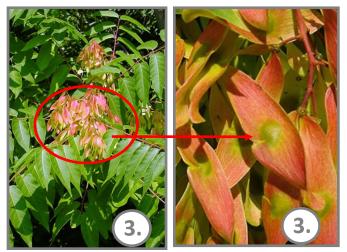
Flowers: June-Aug

#### Fruits: July

Native Range: China

**Distribution & Habitat:** Disturbed forests, forest edges, old fields, roadsides, urban areas, and can grow in a range of soils.

**How to ID:** Look for a tree with large compound leaves with many leaflets. Unlike sumac's milky sap, the tree of heaven has clear sap. Young stems and petioles are hairless. Undersides of leaves are green, whereas sumac has white underneath.

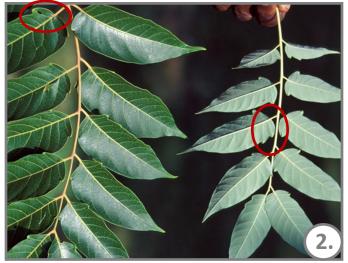


Chuck Bargeron, University of Georgia, Bugwood.org





Great Smoky Mountains National Park Resource Management, USDI National Park Service, Bugwood.org



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

#### Quick ID: • • • • • • • • • • •

| 1. | Growth | Woody tree with alternate branching. Broken stems can smell of rancid peanut butter                 |
|----|--------|---|
| 2. | Leaves | Large compound leaves with many leaflets.<br>Leaflets have lobe at the base but are not<br>toothed. |
| 3. | Fruit  | Papery seeds called samaras grow close to the stem through the summer.                              |
| 4. | Bark   | Thin and gray with diamond shaped markings<br>on younger trees, and vertical lines as they<br>age.  |

Annemarie Smith, ODNR Division of Forestry, Bugwood.org



#### 

Rhus spp. Flowers: June–July Fruits: July Native Range: North America

Paul Wray, Iowa State University, Bugwood.org

#### Quick ID: •

| 1. | Fruit  | Fruit is pyramidal cluster of berries, often seen from summer through winter. |
|----|--------|---|
| 2. | Leaves | Leaves have toothed edge with no lobe visible on the leaflet.                 |



John Cardina, The Ohio State University, Bugwood.org



#### Black Walnut ••••••••••• Juglans nigra Flowers: June-July Fruits: July Native Range: Eastern North America

Jason Sharman, Vitalitree, Bugwood.org

#### Quick ID: • • • • • • • • • • • •

| 1. | Bark and<br>Leaf | Bark is rough, even when young. Leaf has many leaflets but no lobes on leaflets |
|----|------------------|---|
| 2. | Fruit            | Fruit vaguely resembles green apples from mid-summer until they fall in late    |



Paul Wray, Iowa State University, Bugwood.org



#### Common Buckthorn

Rhamnus cathartica

#### **Detailed ID Notes:**

Flowers: Early summer

Fruits: Fruit matures in Oct.

**Native Range:** Europe, northern and western Asia

**How to ID:** Look for a coarse shrub, 2-6 m. tall. Glabrous branches have shoots that are tipped with sharp spines. Leaves are opposite to subopposite, elliptic to ovate and can be either acute or obtuse. The three lateral veins on each side are strongly up-curved. These leaves remain until late autumn, unlike many natives. Fragrant, non-showy yellow-green flowers appear in clusters of 2-6.



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



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



Jan Samanek, Phytosanitary Administration, Bug-wood.org



Paul Wray, Iowa State University, Bugwood.org

#### Quick ID: • • • • • • • • • • • • •

| 1. | Fruit  | Plump, black fruits appear August-September   |
|----|--------|---|
| 2. | Leaves | Shiny round leaves with small teeth and 3-5<br>pairs of secondary veins which curve towards<br>leaf tips. Leaves grow opposite or nearly<br>opposite on the branch. |
| 3. | Bark   | Young bark is smooth with dark raised areas which becomes quite rough as tree ages.   |
| 4. | Spines | Large thorns grow along branch with possible spine at branch tip.   |



#### Glossy Buckthorn

Frangula alnus

**Native Range:** Europe, western Asia, northern Africa

Rob Routledge, Sault College, Bugwood.org

| 1. | Leaves | Leaves have no teeth and 8-9 pairs of secondary veins which curve towards the leaf tip.           |
|----|--------|---|
| 2. | Bark   | Young bark appears greenish brown which ages to have light color blotches and raised white spots. |
| 3. |        | Spines grow along the twig but not at the tip of the branch.                                      |



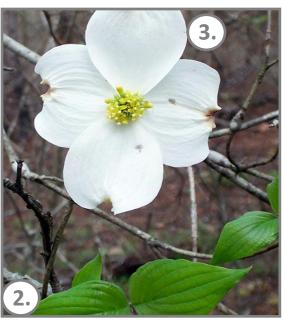
Leslie J. Mehrhoff, University of Connecticut, Bugwood.org



#### Dogwood •

Cornus spp.

Native Range: Throughout much of the United States



Chris Evans, University of Illinois, Bugwood.org

| 1. | Bark                | Smooth grey bark matures to blocky appear-<br>ance in some species.         |
|----|---------------------|---|
| 2. | Leaf                | Leaf has no teeth and can be shiny, but is lighter in color than Buckthorn. |
| 3. | Flower              | Very showy flower with 4 petals   |
| 4. | Twig (not<br>shown) | Branching is opposite.  |

David Stephens, Bugwood.org



#### Amur Cork Tree

Phellodendron amurense

#### **Detailed ID Notes:**

Flowers: June-July

Fruits: October

**Distribution and Habitat:** Thrives in moist soils, disturbed areas, forest edges and forests.

**Native Range:** Eastern Asia, northeast China, Korea, Russia, and Japan.

**How to ID:** Look for a tree that has substantially textured spongy looking bark, dark grey in color. Opposite, pinnately compound leaves are dark green.



Chris Evans, University of Illinois, Bugwood.org



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

#### Quick ID: • • • • • • • • • • • • •

| 1. | Bark    | Bark is ridged, corky, and dark grey   |
|----|---------|--|
| 2. | Leaves  | Pinnately compound leaves with opposite branching. Leaflets are slender and papery.        |
| 3. | Flowers | Flowers are yellow-green to maroon, upright clusters that bloom in late spring through     |
| 4. | Fruit   | Fleshy berries turn black and are about 1cm in width in fall. Each berry contains 5 seeds. |

**Hint:** Cutting into the bark reveals bright yellow inner bark. The leaves and fruit of the tree give off a strong odor, similar to disinfectant or citrus.



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



Patrick Breen, Oregon State University, Bugwood.org



Keith Kanoti, Maine Forest Service, Bugwood.org



Keith Kanoti, Maine Forest Service, Bugwood.org



#### Ash Species ••••••••••••

Look-alikes

Fraxinus spp.Flowers: Early SpringFruits: Early SpringNative Range: Eastern and Central North America

#### Quick ID: • • • • • • • • • • • • • •

| 1. | Fruit | Ashes produce winged samaras similar to maple trees, not fleshy berries. |
|----|-------|--|
| 2. | Bark  | Bark has angled ridges that produce "V" and "A" shapes                   |

Black Walnut •••••••• Juglans nigra Flowers: June-July Fruits: July Native Range: Eastern North America

Paul Wray, Iowa State University, Bugwood.org

#### Quick ID:

| 1. | Fruit  | Fruits are green orbs approximately the size of lemons or small apples that begin to fall in |
|----|--------|--|
| 2. | Leaves | Compound leaves and branches grow alter-<br>nately on Black Walnut.                          |



Jason Sharman, Vitalitree, Bugwood.org

ALT Tree ♥ 20' ☆ ☆ ♦

#### Black Alder, European Alder • • • • • • • • • •

Alnus glutinosa

#### **Detailed ID Notes:**

Flowers: June-July

Fruits: October

Native Range: Europe, northern Africa and western Asia.

**How to ID:** Look for a tree with smooth, dark brown bark, which may have some fissures with age. The leaves are leathery with rounded bases and an indent or notch at the tip. Margins of the leaves are serrate with variable teeth.



Robert Vidéki, Doronicum Kft., Bugwood.org



Paul Wray, Iowa State University, Bugwood.org



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



Robert Vidéki, Doronicum Kft., Bugwood.org



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

Quick ID: • •

| 1. | Leaves                 | Roundish leaves that grow alternately on<br>the branch, <u>often having an indent or</u><br><u>notch at the leaf-tip</u> when mature. Un-<br>derside of the leaf is sticky when young. |
|----|------------------------|--|
| 2. | Bark                   | Bark is smooth and greenish-brown when<br>young. Mature bark develops deep fis-<br>sures and plates revealing lighter inner  |
| 3. | Growth                 | Roots grow very quickly, often leading to surface root mats. <u>Grows either as a</u> single stem tree or multi-stemmed  |
| 4. | Twig                   | Older branches have white lenticels (dots<br>on the bark) while young twigs have buds<br>that are clearly stalked.   |
| 5. | Fruit                  | Catkins appear similar to cones and grow on a long stalk.  |
| 6. | Habitat (not<br>shown) | Always found near water or location with high water table  |



Keith Kanoti, Maine Forest Service, Bugwood.org



Robert Vidéki, Doronicum Kft., Bugwood.org

| 1. | Leaves | Roundish leaves that grow alternately on<br>the branch, <u>without an indent or notch.</u><br><u>Young leaves do not have a stick under-</u><br><u>side.</u> |
|----|--------|--|
| 2. | Bark   | Bark is smooth and pale reddish-grey-<br>brown.  |
| 3. | Growth | Grows in multi-stemmed shrub form.   |
| 4. | Fruit  | Catkins similar to A. glutinosa, but grow on a short stalk   |
|    |        |  |

# Look-alikes

#### 

Alnus incana Growth: Tree Native Range: Northern portions of North America



Brett Marshall, Sault College, Bugwood.org



Mary Ellen (Mel) Harte, Bugwood.org

OPP Tree 9 20' Invasive

#### 

Aralia elata

#### **Detailed ID Notes:**

Flowers: July-Aug.

Fruits: Sept.-Oct.

**Distribution and Habitat:** Disturbed areas, forest edges, meadows and fields, shores of rivers and lakes.

**Native Range:** Japan, Korea, Manchuria and far eastern Russia.

**How to ID:** Look for exceptionally large compound leaves that are between 2 and 4 ft. long, borne on stems with large prickles at each leaf axil. Some cultivars have variegated leaves.



Joyce Tomaselli, CCEDC



John Ruter, University of Gerogia, Bugwood.org



T. Davis Sydnor, The Ohio State University, Bugwood.org



Chris Evans, University of Illinois, Bugwood.org



John M. Randall, The Nature Conservancy, Bugwood.org

#### Quick ID: • • • • • • • • • • • • • • •

| 1. | Stems         | Stems are covered in sharp thorns on a greyish brown smooth bark.   |
|----|---------------|---|
| 2. | Leaves        | Leaf is doubly compound with a fern-like appearance, with thorns at each leaf axil.   |
| 3. | Leaf<br>Veins | Leaf veins run all the way to the tips of the teeth.  |
| 4. | Flower        | Flowers in dense white clusters 30-60 cm<br>wide from July-August. Flowers radiate from<br>separate stems within the cluster. |

#### 



Chris Evans, University of Illinois, Bugwood.org



Paul Wray, Iowa State University, Bugwood.org

Zanthoxylum clava-herculis

#### 

2. Leaves Leaves singly compound like ash or walnut.

#### Devil's Walkingstick•



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



John D. Byrd, Mississippi State University, Bugwood.org

#### Aralia spinosa

| Quick ID:••••••••• |        |   |
|--------------------|--------|---|
| 1.                 | Leaves | Leaf veins diminish in size and branch out before reaching tips of teeth.                             |
| 2.                 | Flower | Flower clusters 1-1.2 meters in width. Flow-<br>ers radiate from a central stem in each clus-<br>ter. |

#### Black Locust





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

#### Robinia pseudoacacia

#### **Quick ID:**

 Leaves Compound leaves with rounded leaflets and no thorns in leaf axils.
 Growth Large tree which grows in colonies. Rough bark distinctive from other thorny trees.



#### Burning Bush, Winged Euonymous

Euonymus alatus

#### **Detailed ID Notes:**

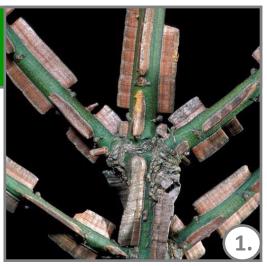
Flowers: Late April to June

Fruits: Sept.-Oct.

Native Range: Northeastern Asia

**Distribution and Habitat:** Variety of disturbed areas as well as undisturbed forests

**How to ID:** Look for dense stands of deciduous shrubs that have four corky wings or ridges along stems. It grows multi-stemmed and significantly branched. Small and obovate green leaves become bright scarlet, to purple, in the fall.



Barry Rice, sarracenia.com, Bugwood.org



James H. Miller, USDA Forest Service, Bug-wood.org

#### Quick ID: • • • • • • • • • • • • • • • •

| 1.       | Twig         | Twigs and branches have papery "wings" which wear off as branches grow larger   |
|----------|--------------|---|
| 2.<br>3. | Leaf<br>Leaf | Leaves are oppositely arranged on the twig and<br>turn bright red in fall leading to the common<br>name "Burning Bush". Leaf edge is finely serrate.<br>Twigs have a pair of leaves at the tip that<br>resemble "bunny ears." |
| 3.       | Growth       | Grows as a tall understory shrub which leafs out<br>in spring before many other shrubs and trees  |
| 4.       | Flower       | Flowers small and non-descript with 4 petals  |



James H. Miller, USDA Forest Ser-



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



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



Dow Gardens , Dow Gardens, Bugwood.org



Dow Gardens, Dow Gardens, Bugwood.org

## Blackhaw Viburnum

Look-alikes

Viburnum prunifolium Flowers: May-June Fruits:: Aug.-Oct. Native Range: Eastern and central North America

#### Quick ID: • • • • • • •

| 1. | Flower                 | White flowers with 5 petals grow in broad clusters   |
|----|------------------------|--|
| 2. | Leaf                   | Oppositely arranged leaves, round in appearance which lack "bunny ears" at the end of branch |
| 3. | Twig (not<br>pictured) | Branches and twigs lack the papery wings of E. alatus.                                       |



#### Arrowwood Viburnum • • • • • • • • • • • •

Viburnum dentatum Flowers: May-June Fruits: Aug.-Nov. Native Range: Eastern North America

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



Vern Wilkins, Indiana University, Bugwood.org

#### Quick ID: • • • • • • • • • • • • • •

| 1 | L. | Leaf                   | Leaf is deeply cut and arranged oppositely.<br>Lacks bunny ears. |
|---|----|------------------------|--|
| 2 | 2. | Flower                 | White flowers present in small bunches.                          |
| 3 | 3. | Twig (not<br>pictured) | Branches and twigs lack the papery wings of E. alatus.           |



#### 

Berberis thunbergii

Flowers: May-June

Fruits: July-October

Native Range: Japan

Habitat and Distribution: It occurs in disturbed areas, early successional forest, edge, floodplain forest, forest wetland, and other habitats. It is associated with closed-canopy forests, woodlands and wetlands

**How to ID:** Look for a compact, spiny, shrub between 1-5 feet tall. Smooth edged leaves range from oval to spatulate and are clustered in tight bunches close to the branches. Single spines bear small leaves in their axils. Yellow flowers are present individually or in small clusters.





John Ruter, University of Geor-

Barry Rice, sarracenia.com, Bugwood.org



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



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



John Ruter, University of Georgia, Bugwood.org

#### Quick ID: • • • • • • • • • • • • • •

| 1. | Leaves   | Small, spoon-shaped leaves with a smooth<br>edge. Each leaf cluster contains a single<br>needle-like thorn |
|----|----------|--|
| 2. | Growth   | Dense bush may be either red or green in<br>color. Scraping the bark reveals a yellow<br>twig.             |
| 3. | Flowers  | Small white to yellow flowers grow along the branches May-June.  |
| 4. | Fruit    | Red berries persist through the winter.  |
| 5. | Behavior | Forms dense thickets of arching branches in forest understory. Shades out nearly all other plants.         |

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



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

#### Quick ID: • • • • • • • • • • •

| 1. | Leaves | Leaves larger than Japanese species with a serrated edge.                             |
|----|--------|---|
| 2. | Thorns | Broad, pointy thorns grow in groups of 3  |
| 3. | Growth | Grows much taller than B. thunbergii, with individual plants reaching 3 meters (10ft) |



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

## Look-alikes

#### Common Barberry • • • • • • • • • • • •

Berberis vulgaris

Growth: Shrub

**Native Range:** Asia's middle and western mountains.

Habitat and Distribution: Less aggressive than it's Japanese cousin, common barberry, is most often found in abandoned gardens.

**How to ID:** The leaves are much larger and have a serrated edge. The thorns also grow along the branch but grow in bunches of three rather than the single, needle-like thorns on Japanese barberry.



#### 

Rosa multiflora

Flowers: May-June

Fruits: Mature in October

Native Range: Eastern Asia

**Distribution and Habitat:** Prominent in disturbed locations; roadsides, old fields, pastures, prairies, savannas, open woodlands and forest edges. Most productive in sunny and well drained areas.

**How to ID:** Look for a shrub with arching canes that are significantly branched. Canes may be up to 12 feet long and have stout recurved prickles. Leaves are alternate, pinnately compound, with 5 to 11 leaflets. Fruits are globular to ovoid and 1/4 inch or less in diameter. Fringed petioles distinguish it from other species.



Rob Routledge, Sault College, Bugwood.org



Randy Westbrooks, Invasive Plant Control, Inc., Bugwood.org



Chris Evans, University of Illinois, Bugwood.org



Chris Evans, University of Illinois, Bugwood.org

#### Quick ID: • • • • • • • • • • • • • • •

| 1. | Thorns | Hooked thorns along the stem and <b>fringed</b><br>'stipules' at base of compound leaf                    |
|----|--------|---|
| 2. | Leaves | Compound leaves with toothed edges  |
| 3. | Flower | Multiple, small, white flowers which mature<br>to small red rosehips which persist through<br>the winter. |
| 4. | Growth | Woody shrub with thorns covering all but the<br>thickest stems. Grows to a height of 10-15<br>feet        |

**Carolina Rose** 





|    |        | Rosa carolina   |
|----|--------|---|
| 1. | Leaves | Compound and lacking the fringed stipule.               |
| 2. | Flower | Flower is pink and grows individually, not in clusters. |

James H. Miller, USDA Forest Service,

John D. Byrd, Mississippi State Universi-

#### Virginia Rose •

#### Rosa virginiana

| 1. | Leaves | Compound and lacking the fringed stipule.               |
|----|--------|---|
| 2. | Flower | Flower is pink and grows individually, not in clusters. |



James H. Miller, USDA Forest Service,

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University of Connecticut Plant Database, http://hort.uconn.edu/plants, Mark H. Brand, Department of Plant Science and Landscape Architecture, Storrs, CT 06269

#### 



Missouri Botanical Garden



#### Rosa palustris

| 1. | Leaves | Compound and lacking the fringed stipule.               |
|----|--------|---|
| 2. | Flower | Flower is pink and grows individually, not in clusters. |



## Invasive

#### Japanese Wineberry

Rubus phoenicolasius

#### **Detailed ID Notes:**

Flowers: Early summer

Fruits: Fruit matures in June

Native Range: Eastern Asia

**Distribution and Habitat:** Thrives in edge and wasteland habitats, but can grow in forested areas as well.

**How to ID:** Look for a multi-stemmed, spiny, small shrub. Canes can be up to 6 ft. in length. The entire plant is covered in red, minute, glandular hairs, a distinctive feature not seen in native berries. They also have three leaflets, unlike the five seen in native blackberries.



Britt Slattery, US Fish and Wildlife Service, Bugwood.org



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



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



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

#### Quick ID: • • • • • • • • • • • • • •

| 1. | Fruit           | Aggregate berry matures in late July to a deep red, sweet fruit                |
|----|-----------------|--|
| 2. | Leaves          | Compound leaf with three leaflets with a white and fuzzy underside.            |
| 3. | Stems           | All stems are green and covered with fine reddish hairs and thin sharp thorns. |
| 4. | Unripe<br>fruit | Immature fruit is covered in same reddish hair as stem.                        |

Hint: Ruby red color of wineberry fruits sets it apart from blackberry and black raspberries

**Blackberries** 

|   |  | <i>Rubus</i> spp.  |
|---|--|--|
|   | 1. Fruit   | Aggregate berries which stick to the stem, even when mature.                                 |
|   | 2. Leaf  | Young leaves may have 3<br>leaflets but mature leaves have<br>5. All leaves have a green un- |
| 1.  | 2. 3. Stem (not shown)                                     | Stems are green to reddish with sharp thorns and no hairs.                                   |
| Gerald Holmes, California Polytechnic State<br>University at San Luis Obispo, Bugwood.org | Leslie J. Mehrhoff, University of Connecticut, Bugwood.org |  |

#### **Black Raspberries**

#### Rubus occidentalis

| 1. | Leaves | Compound leaves range from<br>3-5 leaflets with green<br>underside |
|----|--------|--|
| 2. | Stem   | Stem is pale green/blue with thorns and without hairs.             |
| 3. | Fruit  | Berries smaller than other aggregate fruits.                       |



D. Cameron, from Go Botany website: https: gobotony.newenglandwild.org



Leslie J. Mehrhoff, University of Connecticut,

**Red Raspberries** 

Rubus idaeus



Howard F. Schwartz, Colorado State University, Bugwood.org



Leslie J. Mehrhoff, University of Connecticut,

| 1. Leaves | Compound with a lighter green underside        |
|-----------|--|
| 2. Stem   | Stem can be green or red with very short hairs |



#### 

Rhodotypos scandens

#### **Detailed ID Notes:**

Flowers: Late spring-early summer

Fruits: Fruit matures in Oct.

Native Range: Japan and China

**Distribution and Habitat:** Very prominent in disturbed areas, forest edges and can invade forests

**How to ID:** Look for a small, multi-stemmed shrub. The bright green leaves are opposite, simple and doubly serrate. They also have ribbed veins and a long, pointed tip. Solitary white flowers with four-petals open in late spring. Groups of four green-yellow berries occur and turn to jet black as they ripen. The fruits have four persistent sepals surrounding them.



Leslie J. Mehrhoff, University of Connecticut,



Mike Young, new York, New Jersey Trail Conference



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

#### Quick ID: • • • • • • • • • • • •

| 1. | Fruit  | Fruits appear as 4 berries which turn from<br>dark red to black from September through<br>December. |
|----|--------|---|
| 2. | Leaves | Oppositely branched, leaves has ribbed veins with noticeably elongated leaf tips                    |
| 3. | Flower | White flowers with four petals may be pre-<br>sent from April until early June                      |

Arrowwood Viburnum





Viburnum dentatum

#### **Quick ID:**

2.

- Leaves Leaves are more deeply toothed and lack the elongated leaf tip of R. scandens
  - Fruit Dark blue fruit grows in clusters

Troy Evans, Great Smoky Mountains

Vern Wilkins, Indiana University, Bugwood.org

## Linden Viburnum

Viburnum dilatatum

#### **Quick ID:**

| 1. | Leaves | Leaves are fuzzy and shallowly      |
|----|--------|-------------------------------------|
|    |        | toothed                             |
| 2. | Fruit  | Fruit is a red berry which grows in |
|    |        | flat-topped clusters which ripen in |
|    |        | September                           |
|    |        |                                     |



Doug Manning, National Park Service, Bugwood.org



University of Connecticut Plant Database, http://hort.uconn.edu/plants, Mark H. Brand, Department of Plant Science and Landscape Architecture, Storrs, CT 06269

#### Birches





Paul Wray, Iowa State University, Bugwood.org



Joseph OBrien, USDA Forest Service, Bugwood.org

#### **Quick ID:**

Leaves Birches all have alternate branches although the shape varies based on species.
 Growth All birches grow as trees and have lenticels (off-colored spots or lines) on the bark which may or may not peel.



#### Oriental Photinia

Photinia villosa

#### **Detailed ID Notes:**

Flowers: Late May

Fruits: Matures in Oct.

Native Range: Japan, China and Korea

**How to ID:** Look for a large shrub that has an irregular, ovoid crown. Alternately arranged dark green leaves and simple and deciduous, up to 3 in. long. They have sharply serrated leaf margins with gland tipped serrations. Small, white flowers bloom individually, and oval, red fruits mature in October.



Porse, Sten. *Photinia villosa: Flowers and foliage*. 6 October 2006. Wikimedia. Web. Retrieved 22 June, 2016. https://commons.wikimedia.org/ wiki/File:Photinia-villosa-flowers.JPG



Mark H. Brand, University of Connecticut, Bugwood.org



Photo courtesy of Shelby Timm. Photinia villosa. 2016.



Mark H. Brand, University of Connecticut, Bugwood.org

#### Quick ID: • • • • • • • • • • • • • •

| 1. | Leaves | Leaves arranged alternately on the branch with stemless leaves                        |
|----|--------|---|
| 2. | Fruit  | Red berries mature in October and persist past leaf fall                              |
| 3. | Flower | Small, white flowers grow individually (not in bunches) which bloom in late May-June. |
| 4. | Growth | Maximum height 10-15" often with multiple trunks.                                     |







#### **Chokeberries (Red and**

Aronia spp.

#### **Quick ID:**

- **1.** Leaves have petiole (leaf-stem).
- 2. Flowers Small, white flowers which grow in bunches along the whole branch

#### Winterberry Holly

Ilex verticillata

#### **Quick ID:**

| 1. | Leaves  | Leaves have petiole (leaf-stem).                                 |
|----|---------|--|
| 1. | Fruit   | Hardy, waxy berry which persist through the winter.              |
| 2. | Flowers | Small, white flowers which grow individually, close to the stem. |







Rob Routledge, Sault College, Bugwood.org

#### Juneberry



Chris Evans, University of Illinois, Bug-



### Amelanchier spp.

#### **Quick ID:**

| 1. | Leaves  | Leaves have long petiole (leaf-<br>stem).                |
|----|---------|--|
| 2. | Flowers | White showy flowers appear be-<br>fore leaves in spring. |

Paul Wray, Iowa State University, Bugwood.org



#### Linden Viburnum

Viburnum dilatatum

#### **Detailed ID Notes:**

Flowers: May-June

Fruits: Fruit matures in Oct.

Native Range: Eastern Asia

**Distribution and Habitat:** Prominent in disturbed areas, edges, and may invade forests.

**How to ID:** Look for a multi-stemmed , rounded, deciduous shrub. It may have dense foliage to the ground. Look for simple, opposite leaves that are obovate to broad-elliptic in shape. The leaves may vary between nearly round to almost strap-like on the same plant. Scalloped margins result in coarse, irregular teeth. Small creamy, white flowers occur in flattened clusters and are typically numerous on the shrub. The bark of the stem is dark brown with prominent orange lenticels and are densely pubescent.



Doug Manning, National Park Service, Bugwood.org



Leslie J. Mehrhoff, University of Connecticut, Bug-wood.org

#### Quick ID: • • • • • • • • • • • • • • •

| 1. | Leaves  | Oval shaped leaves with scalloped edges and a soft, hairy surface; vary in size and thick- |
|----|---------|--|
| 2. | Form    | Opposite branching shrub.  |
| 3. | Flowers | Bunches of white flowers appear at branch tips in May-June                                 |
| 4. | Fruit   | Fruit is a red berry which grows in flat-topped clusters which ripen in September          |



University of Connecticut Plant Database, http://hort.uconn.edu/ plants, Mark H. Brand, Department of Plant Science and Landscape Architecture, Storrs, CT 06269-4067 USA



University of Connecticut Plant Database, http://hort.uconn.edu/ plants, Mark H. Brand, Department of Plant Science and Landscape Architecture, Storrs, CT 06269-4067 USA

# 

Vern Wilkins, Indiana University, Bugwood.org

#### Arrowwood Viburnum • • • • • • • • • • •

Viburnum dentatum Flowers: May-June Fruits: Mature in Oct. Native Range: Eastern United States



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



Joyce Tomsaelli, CCEDC

| Quick ID: • • • • • • • • • • • • • • • • • • • |         |   |
|---|---------|---|
| 1.  | Fruit   | Fruit is a blue berry which grows in clusters at the branch ends.   |
| 2.  | Leaf    | Oval shaped leaves with pointed teeth on the<br>leaf edge and may be rough, hairy, or smooth<br>on mature plants. |
| 3.  | Flowers | Bundles of small white flowers appear at the same time as Linden Viburnum but are less showy                      |



#### 

Viburnum seiboldii

#### **Detailed ID Notes:**

Flowers: May

Fruits: Fruit matures in Sep.

Native Range: Japan

**Distribution and Habitat:** Thrives in moist, well-drained soils. Prevalent in disturbed areas.

**How to ID:** Look for a tall shrub that is about half as wide as it is tall. The simple, 2-5 inch long, leaves are arranged alternately along the branches. The leaves are glossy, and dark green with serrated margins. When they're crushed, they emit a foul odor. Abundant small white flowers occur in clusters and may take up much of the surface when they bloom.



University of Connecticut Plant Database, http:// hort.uconn.edu/plants, Mark H. Brand, Department of Plant Science and Landscape Architecture, Storrs, CT 06269-4067 USA



University of Connecticut Plant Database, http:// hort.uconn.edu/plants, Mark H. Brand, Department of Plant Science and Landscape Architecture, Storrs, CT 06269-4067 USA



Qwert1234. Viburnum sieboldiivar. obovatifolium, Aizu area, Fukushima pref.,Japan. 6 June 2010. Wikimedia. Web. Retrieved June 27, 2016. https://commons.wikimedia.org/wiki/ File:Viburnum\_sieboldii\_var.\_obovatifolium\_3.JPG

#### Quick ID: • • • • • • • • • • • • • •

| 1. | Leaves | Oppositely arranged, this <b>deciduous</b> leathery<br>leaf is 2-5" long and has a foul odor when<br>crushed. Leaf edge is coarsely toothed with |
|----|--------|--|
| 2. | Fruit  | Small, oval fruits go from red to black in Sep-<br>tember  |
| 3. | Flower | Abundant off-white flowers bloom in May and may cover substantial areas of the plant.  |

Richard Webb, Bugwood.org



Dow Gardens , Dow Gardens, Bugwood.org

#### Leatherleaf Viburnum

Viburnum rhytidophyllum Flowers: Mid-May Fruits: Ripens in September Native Range: Central and western China



Dow Gardens , Dow Gardens, Bugwood.org

| Quick ID: • • • • • • • • • • • • • • • • • • • |        |  |  |
|---|--------|--|--|
| 1.  | Leaves | Also oppositely arranged, Leatherleaf        |  |
|   |        | viburnum is evergreen, individual leaves are |  |
|   |        | hairy with a very wrinkled leaf surface and  |  |
|   |        | have no teeth.                               |  |

2. Flower Flower is similar and may not be used as an key ID characteristic.

**3. Stems** Stems are and twigs are also hairy.



#### Scotch Broom

Cytisus scoparius

#### **Detailed ID Notes:**

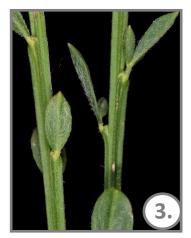
Flowers: Late May-Early June

Fruits: Fruits mature in October

**Distribution and Habitat:** Roadsides, coastal sites, disturbed areas, pastures, dry scrublands. Can thrive in dry soils.

Native Range: Western and central Europe

**How to ID:** Look for a shrub that ranges between 3-10 ft. tall. The stems are five-angled and remain green through the year. Look for leaves that are small, alternate, and compound with three leaflets. Flowers are yellow, resembling sweet pea flowers and occur singly or in pairs in the upper leaf axils. Seed pods are 1-2 inches long, fuzzy on the edges and will explode when mature, forcefully expelling the seeds.



Robert Vidéki, Doronicum Kft., Bugwood.org



Eric Coombs, Oregon Department of Agriculture, Bugwood.org



Steve Dewey, Utah State University, Bugwood.org



Eric Coombs, Oregon Department of Agriculture, Bugwood.org

#### Quick ID: • • • • • • • • • • • • •

| 1. | Growth | Tough green stem turns woody at base  |
|----|--------|---|
| 2. | Fruit  | Long, hairy bean pod.   |
| 3. | Leaves | Small, clover like, leaves grow close to the stem.  |
| 4. | Flower | Bright pea-like flower present mid-May<br>through June, most often yellow but may<br>have red or purple petals. |



Howard F. Schwartz, Colorado State University, Bugwood.org

#### Quick ID: • • • • • • • • • • • • •

|   | 1. | Stem   | All bush clovers have herbaceous stem while Scotch Broom has a woody stem.                                  |
|---|----|--------|---|
| • | 2. | Leaves | Blue-green leaves grow in threes on the length of the arching stems   |
|   | 3. | Flower | Showy flowers range in colors, occurring in crowded heads on short peduncles on the upper part of the stem. |

#### Bush Clovers/Sweet Clovers • • • • • •

Lespedeza spp.

**Native Range:** Many regions of North America **Flowers:** July-Sept.

Fruits: Sept.-Oct.

**Habitat:** Prefers drier soils, prairies, rocky and sandy forests, savannahs and areas with high drainage.



Chris Evans, University of Illinois, Bugwood.org



Arthur Haines, Bugwood.org



Rob Routledge, Sault College, Bugwood.org

#### ALT Vines S S S S Invasive

#### Oriental Bittersweet ••••••••••

Celastrus orbiculatus

Flowers: May-June

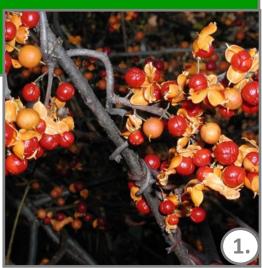
Fruits: September-November

Native Range: Eastern Asia, Korea, China, Japan

**Distribution and Habitat:** It occurs in forest edges, open woodlands, fields, hedgerows, coastal areas, salt marshes, and disturbed lands. While often found in more open, sunny sites, its shade tolerance allows it to invade forested areas too.

**How To ID:** Look for an aggressive vine with roundish leaves that are broader than they are long. Young vines have a green stem which turns grayish tan with age. Older

plants create large tangles and often "choke" out neighboring host trees. Fruits occur along stem as opposed to American Bittersweet's fruits which occur at the end of the stem.



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



Chris Evans, University of Illinois, Bugwood.org



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



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

#### 

| 1.   | Fruit           | Produces 2-3 green fruits in mid summer along stem. Fruit capsules turn<br><i>yellow</i> in the fall, eventually revealing orange-red fruit. |
|------|-----------------|--|
| 2.   | Leaves          | Alternate leaves which are generally rounded with a point, but can vary.<br>Generally <b>2x broader than they are long</b> .                 |
| 3.   | Young<br>Growth | Climbs and vines up trees. New vines pop up like snakes and attach themselves to neighboring trees and branches.                             |
| 4.   | Older<br>Growth | Becomes more aggressive as it ages. Older vines may look like tree trunks and form tangled nets that can tear down mature trees.             |
| 11:4 |                 | re rounder then the Herdy Kini (ACAD) with a way gently corrected adap. No   |

Hint: Leaves are rounder than the Hardy Kiwi (ACAR) with a wavy, gently serrated edge. Native bittersweet will have similar fruit and flower clusters but on the tips of branches, not along the stem. However, there are reports of hybridization between the two.

**Ecological Impacts:** Spread primarily by fruit-loving birds, these vines climb other woody plants and may kill mature trees through a combination of shading and uprooting.



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

#### American Bittersweet • • • • • • • • • • •

Celastrus scandens

Flowers: May-Jun

Fruits: Sep-Nov

Native Range: Central and Eastern North America

**Distribution and Habitat:** It occurs in dry fields, thickets, and hedge rows. Widespread but uncommon.

**How To ID:** Similar to its Asiatic cousin, American Bittersweet climbs fences, bushes and trees but it lacks the ability to tolerate shading leading to growth in sunny areas and breaks in the forest canopy. Fruits encased in an orange capsule occur at the end of the stem and remain on the vine throughout the winter.

#### Quick ID: •••••••••••••••

| 1. | Fruit  | Produces 6 or more green fruits in mid summer at end of<br>stem. Fruit capsules turn <b>orange</b> in the fall, eventually re-<br>vealing orange-red fruit. |
|----|--------|---|
| 2. | Leaves | Alternate leaves which are generally rounded with a point,<br>but can vary. Generally <b>2x longer than they are broad.</b>                                 |
| 2  | Growth | Much less aggressive than C. orbiculatus  |

**Ecological Value:** Native Bittersweet berries provide important winter food for a number or resident bird species while the vines provide nesting cover year-round. The flowers attract native pollinators and the plant hosts at least 5 species of moth caterpillars. This plant is listed as Exploitably Vulnerable in New York likely due to its historically unsustainable use in holiday wreath-

making.



Chris Evans, University of Illinois, Bugwood.org



Richard Webb, Bugwood.org



#### 

#### Hardy Kiwi

Actinidia arguta

Flowers: June-July

Fruits: September-October

Native Range: Russia, Korea, China, Japan

**Distribution and Habitat:** Grows on old garden sites, forest edges, and other disturbed areas.

**How To ID:** Look for a vine that climbs with elliptical leaves and a red petiole (leaf stem). Vines will produce fruits only in rich soils after 3-5 years of growth so this is not a reliable diagnostic for younger plants. Older plants will take over a site and choke out all other low-growing plants and vines.



Sten Porse, Bugwood.org

Quick ID: ••••

| 1. | Growth | Likes to climb by twinging, and sprawling. Has stiff woody stems   |
|----|--------|--|
| 2. | Leaves | Sturdy foliage, leaves are elliptical, with fine<br>sharp serration on edge. Look for the red petiole<br>that attaches the leaf to the twig. |
| 3. | Fruit  | Produces edible fruits 1-2 inches long, fleshy, about the size of a grape or larger  |
| 4. | Flower | Flowers white in early summer with brown-<br>colored centers. Has a fragrance similar to lily-of-<br>the-valley.                             |
|    |        | the valley.  |

**Hint:** May be confused with Oriental Bittersweet (CEOR) which has a rounder leaf that comes to more of a point. Mature bark of hardy kiwi is flaky and exfoliates, whereas bittersweet bark is rough but does not shed. Oriental Bittersweet is further identified on the next page.



Sten Porse, Bugwood.org



Q Qwert, Bugwood.org



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

#### American Bittersweet •••••••••••

Celastrus scandens

Flowers: May-Jun Fruits: Sep-Nov

Native Range: Central and Eastern North America Distribution and Habitat: It occurs in dry fields, thickets, and hedge rows. Widespread but uncommon.

#### Quick ID: •••••••••••••

| 1. | Fruit  | Produces 6 or more green fruits in mid summer at end of stem. Fruit capsules turn <b>orange</b> in the fall, eventually revealing orange-red fruit. |
|----|--------|---|
| 2  | Leaves | Alternate leaves which are generally rounded with a point,  |

but can vary. Generally 2x longer than they are broad.



Chris Evans, University of Illinois, Bugwood.org

#### **Oriental Bittersweet** •

Celastrus orbiculatus Flowers: May-June Fruits: September-November Native Range: Eastern Asia, Korea, China, Japan

#### 

| 1. | Fruit           | Produces 2-3 green fruits in mid summer along stem. Fruit capsules turn <b>yellow</b> in the fall, eventually revealing orange-red fruit. |
|----|-----------------|---|
| 2. | Leaves          | Alternate leaves which are generally rounded with a point, but can vary.<br>Generally <b>2x broader than they are long</b> .              |
| 3. |                 | Climbs and vines up trees. New vines pop up like snakes and attach themselves to neighboring trees and branches.                          |
| 4. | Older<br>Growth | Becomes more aggressive as it ages. Older vines may look like tree trunks and form tangled nets that can tear down mature trees.          |



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

## Look-alikes



Pueraria montana

Flowers: Late Summer

Fruits: Early Fall

Native Range: India and Eastern Asia

**Distribution and Habitat:** Occurs in anthropogenic, disturbed habitats as well as forest edges and shrublands. Kudzu can withstand fairly dry climates because its large roots can act as reservoirs.

**How to ID:** Look for a semi-woody vine with stems 2.5 cm thick. Dark green leaves are compound with three lobed leaflets. Leaves have brown hairs above and silver hairs on the underside. Older vines may have a knot– or ball-like root crown above the soil surface. Young vines have tan to brown hairs. Purple to pink pea-like flowers smell like Concord grape and commonly occur in pairs or threes. Flat, hairy seed pods grow four to seven centimeters long.



James H. Miller, USDA Forest Service, Bug-



Kerry Britton, USDA Forest Service, Bugwood.org

#### 

| 1. | Leaves | Leaf grows in 3 leaflets which are variable in shape from teardrop to lobed. Leaf margin |
|----|--------|--|
| 2. | Growth | Very aggressive woody vine, up to 100' long.   |
| 3. | Fruit  | Hairy seed pods  |
| 4. | Flower | Purple, fragrant flowers may be present July-<br>August.                                 |

Hint: Leaves are rounder than the Hardy Kiwi (ACAR) with a wavy, gently serrated edge. Native bittersweet will have similar fruit and flower clusters but on the tips of branches, not along the stem. However, there are reports of hybridization between the two.



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



Forest and Kim Starr, Starr Environmental, Bugwood.org



#### Trailing Wild Bean

Strophostyles helvola Growth: Vine Native Range: Eastern North America

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

#### Quick ID:

| 1. | Growth | Grows much less vigorously than Kudzu with individual plants growing to only 4'. Also prefers damp areas. |
|----|--------|---|
| 2. | Flower | Flowers are less complex, often growing individually or in small clusters                                 |



Karan A. Rawlins, University of Georgia, Bugwood.org



Brett Marshall, Sault College, Bugwood.org

#### Quick ID: •••••••••••••

| 1. | Leaf  | Leaf edge is toothed compared to Kudzu's smooth edge. Leaf is also not hairy (do not touch!) |
|----|-------|--|
| 2. | Fruit | Fruits appear July-August and are used by songbirds as a migration food source.              |



Gary Kling, University of Illinois, Bug-

#### Japanese Hops

Humulus japonicus

Flowers: June

Fruits: July-September

**Native Range:** Eastern Asia **Distribution and Habitat:** It occurs in forests, sunny forest edge, and shaded areas. Grows in sandy, loamy and clay soils.

**How To ID:** Look for a climbing vine with 5-lobed leaves and prickles along the stem. The leaves are 2-4 inches in length and deeply divided into 5 distinct palmate lobes that have separate margins and rough surface. Bracts occur where the leaves meet the stem and have a downward curve. Flowers are inconspicuous, small, green, and occur in clusters.



Leslie J. Mehrhoff, University of Connecticut,



Chris Evans, University of Illinois, Bugwood.org



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



Quick ID: • • • • • • • • • • • • •

| -  | •       |   |  |
|----|---------|---|--|
| 1. | Flowers | Small and green, present in June  |  |
| 2. | Leaves  | Leaves are opposite with 5-9 lobes, that meet<br>in a "V", and a toothed edge.  |  |
| 3. | Fruit   | Fruit is a papery capsule found from July-<br>September.  |  |
| 4. | Stem    | Stems are prickly an can irritate skin. At each<br>leaf base are triangular bracts visible found at<br>the base of each leaf. |  |

Chris Evans, University of Illinois, Bugwood.org



## 

Humulus lupulus

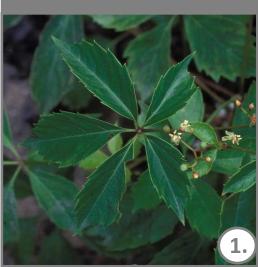
**Growth:** Vine **Native Range:** North America, Europe, Asia

David Gent,



| Quick ID: |        |  |  |
|-----------|--------|--|--|
| 1.        | Fruit  | Both fruit and flowers are very similar. Fruit turns brown in fall and may persist through the winter. |  |
| 2.        | Leaves | Leaves are opposite with 3 lobes that meet in a "U".   |  |

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



## Virginia Creeper •••••••••••

Parthenocissus quinquefolia Growth: Vine Native Range: Eastern US

John Cardina, The Ohio State University, Bugwood.org

## Quick ID: •

| 1. | Leaves | Leaves have 5 separate leaflets.                                       |
|----|--------|--|
| 2. | Vine   | Vine twines often on ground and up fences. Has tendrils but no thorns. |



John Cardina, The Ohio State University, Bugwood.org

## OPP Vines ☆ ¥ ⊕

#### Black swallow-wort

Vincetoxicum nigrum

Flowers: May-July

Fruits: September

Native Range: Northern and southwestern Europe

**Distribution and Habitat:** It occurs in disturbed locations, forest edges, forests, meadows and fields, shores, rivers, or lakes. It requires moist soils, and will grow in shaded areas.

**How To ID:** Look for a vine with oval leaves that have pointed tips and occur in pairs along the stem. The leaves are 3-4 inches long, and 2-3 inches wide. Star shaped flowers have five purple-black petals and have white hairs. These flowers grow in clusters where the leaf stem meets the vine. Their fruits are slender, green to brown, and packed with seeds attached to puffy fibers.



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



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



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



Rob Routledge, Sault College, Bugwood.org

### Quick ID: • • • • • • • • • • • • • •

| 1. | Growth  | Herbaceous twining vine with hairy stem   |
|----|---------|---|
| 2. | Flowers | Usually tiny purple-black 5-petaled flower<br>about 1/4" wide that grow in small clusters<br>where the leaf stem meets the vine |
| 3. | Fruit   | Long, green seed pods reminiscent of milk-<br>weed pods   |
| 4. | Leaves  | Dark, opposite shiny, long-pointed leaves   |

Hint: Leaves are rounder than the Hardy Kiwi (ACAR) with a wavy, gently serrated edge. Native bittersweet will have similar fruit and flower clusters but on the tips of branches, not along the stem. However, there are reports of hybridization between the two.



## Climbing Nightshade •••••••••

Solanum dulcamara Growth: Vine Native Range: North America

Joel Floyd, USDA APHIS PPQ, Bugwood.org

#### **Detailed ID Notes:**

- Herbaceous climbing vine
- Flowers have curved back petals and a yellow projection from the center
- Leaves are compound with three leaflets; or divided with three lobes

## Quick ID: • • • • • • • • • • • •

| 1. | Leaves  | Leaves divided into 3 leaflets or deeply lobed.<br>The tip of the leaf will be much larger than                      |
|----|---------|--|
| 2. | Flowers | Usually tiny violet or purple 5-petaled flower<br>about 1/4" wide that grow in small clusters<br>opposite to a leaf. |
| 3. | Fruit   | Red berries that grow in bunches, each hav-<br>ing an individual stem.   |



Joel Floyd, USDA APHIS PPQ, Bugwood.org



Steve Dewey, Utah State University, Bugwood.org

#### Mile-a-minute vine

#### Persicaria perfoliata

Flowers: June

Fruits: July-October

Native Range: India and eastern Asia.

**Distribution and Habitat:** It occurs in disturbed and open areas along edges of woods, streams, wetlands, uncultivated fields and roads. It can also be found in extremely wet areas with poor soil structure.

**How to ID:** Look for a trailing vine with reddish stems that have downward pointing barbs. Light green leaves are shaped like an equilateral triangles. Leaves alternate along the stems. Metallic blue, segmented fruit ripen from July to October. Cup-shaped ocreas surround the stem at intervals.



Bruce Ackley, The Ohio State University, Bugwood.org



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



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



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

## Quick ID: • • • • • • • • • • • • •

| 1. | Growth | Alternate branching vine, which can create thick blankets over other vegetation.                    |
|----|--------|---|
| 2. | Stems  | Curved prickles along stem and leaf stalks.<br>Stems have joints with a round leaf-like<br>stipule. |
| 3. | Leaves | Leaves appear as equilateral triangle with stem attached in the middle on the under-                |
| 4. | Fruit  | Blue berry, ripening July-October   |



Robert Tatina. USDA SCS. 1989. Courtesy of USDA NRCS Wetland Science MDC Staff, Missouri Department of ConservationBugwood.org

## • Climbing False-Buckwheat

Fallopia scandens

| Quick ID: •••••••• |        |   |
|--------------------|--------|---|
| 1.                 | Leaves | Climbing false buckwheat has no<br>prickles on stem and heart-<br>shaped leaf |
| 2.                 | Fruit  | Fall fruit is green with whitish wings.                                       |

## Hog Peanut • •

Amphicarpaea bracteata
Quick ID: ••••••••

| 1. | Leaves | Light colored green leaf has 3 sepa-<br>rate leaflets |
|----|--------|---|
| 2. | Flower | Pale, pink flower present July-<br>September          |



R. A. Nonenmacher, Amphicarpaea bracteata hog peanut -at the Skaneateles Conservation Area, Onondaga County, New York. 26 August 2015. Wikimedia. Web. Retrieved 29 June, 2016.



Smith, R.W., Lady Bird Johnson Wildflower Center

## • • • • • Arrow-Leaved Tearthumb



Robert H. Mohlenbrock. USDA SCS. 1989. Courtesy of USDA

### Persicaria sagittata

| Quick ID: •••••••••• |        |   |
|----------------------|--------|---|
| 1.                   | Leaves | Leaf is longer and rounder than mile-a-minute vine                          |
| 2.                   |        | Prefers moist to wetland soils. Has similar prickles to mile-a-minute wine. |

## Bishop's weed, Gout Weed.

Aegopodium podagraria

## **Detailed ID Notes:**

Flowers: May-June

Fruits: Non-descript fruit matures in Oct.

Native Range: Eastern Asia and Europe

**Distribution and Habitat:** Disturbed areas, fields, pastures. Tolerant of poor soils

**How to ID:** Look for a plant that has a creeping growth. There are usually 9 ovate leaflets per leaf. Lower leaflets have a serrate margin. Upper foliage are arranged as three compound leaves. and have shorter petioles. White flowers are arranged in umbels, that are borne on long stalk. This plant reproduces largely vegetatively and rarely if ever from seed.



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



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



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



Robert Vidéki, Doronicum Kft., Bugwood.org

### Quick ID: ••••••••••

| 1. | Leaves     | Alternate, compound leaf with a finely toothed leaf edge.                    |
|----|------------|--|
| 2. | Behavior   | Most prevalent in shaded areas   |
| 3. | Flower     | Flower resembles white umbrella in July.<br>Grows on a hollow stem.          |
| 4. | Leaf Color | Leaf typically has white edges (see image 1)<br>but may also be fully green. |





### 

*Daucus carota* **Native Range:** Europe, southwestern Asia

John Cardina, The Ohio State University, Bugwood.org

### Quick ID: • • • • • • • • • • • • •

| 1. | Leaves | Leaf appears delicate and resembles domestic carrot leaves.                            |
|----|--------|--|
| 2. | Flower | Flower similar to Gout Weed but often having a purple bloom in the center of the white |



Rob Routledge, Sault College, Bugwood.org



## 

Zizia aurea

Native Range: Eastern Canada to Southern United States

David Cappaert, Bugwood.org

## 

| 1. | Flower | Flower is yellow instead of white                        |
|----|--------|--|
| 2. | Leaf   | Leaves are similar to Gout Weed but smaller and "airier" |



Katy Chayka, www.minnesotawildflowers.info, Bugwood.org

#### Chinese Lespedeza

Lespedeza cuneata

## **Detailed ID Notes:**

Flowers: July-Sept.

Native Range: China, Korea, Japan and Himalayas

**Distribution and Habitat:** Open areas, along roads, in fields, prairies, thickets and disturbed areas.

**How to ID:** Look for thin, alternate leaves that are three parted. These leaves have pronounce bristles on the tips. When in bloom, the creamy white flowers with purple throats develop in clusters of 2-4.





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



Chris Evans, University of Illinois, Bugwood.org

| Q  | Quick ID: • • • • • • • • • • • • • • • • • • • |   |  |
|----|---|---|--|
| 1. | Growth  | Appears as an upright, semi-woody forb<br>reaching 1-1.8 meters in height with one or<br>several slender gray-green stems.  |  |
| 2. | Leaves  | Leaves grow on short stems in groups of 3<br>leaflets which grow alternately on the stem.<br><u>Leaflets have short bristles on tips</u> and sil-<br>very hairs on the underside. |  |
| 3. | Flower  | White/purple flowers appear where leaves meet the stem and bloom July-October   |  |

Dan Tenaglia, Missouriplants.com, Bugwood.org





#### James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org

Chris Evans, University of Illinois,

 $\bullet \bullet \bullet \bullet \bullet$ 

### • • Slender Bush Clover

Lespedeza virginica

## Quick ID:

| 1. | Flower | Purple/white flowers occur in dense clusters along the leaf axils.  |
|----|--------|---|
| 2. | Leaves | Leaves similar to L. cuneata but<br>with a stem longer than the<br>individual <u>leaf lacking bristle</u><br><u>tip</u> |

## Hairy Lespedeza • •

#### Lespedeza hirta

## Quick ID:

| 1. | Leaves | Leaves are broad and round,<br>growing in groups of 3 along<br>the stem |
|----|--------|---|
| 2. | Flower | Flowers in dense, spiky clusters  |



Chris Evans, University of Illinois, Bugwood.org



Chris Evans, University of Illinois, Bugwood.org

#### 



Bruce Ackley, The Ohio State University, Bugwood.org



| Rummerowia stipulacea         Quick ID: |  |  |
|---|--|--|
| 1. Leaves                               | Round, distinctly "clover like"<br>leaves in groups of 3.  |  |
| 2. Form                                 | Spreads out in branches, often has large, papery stiplues. |  |

#### Bruce Ackley, The Ohio State University, Bugwood.org

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## us Invasive

#### Wild Parsnip

Pastinaca sativa

## **Detailed ID Notes:**

Flowers: June-mid July

Native Range: Europe and Asia

**Distribution and Habitat:** Disturbed areas, and open fields and lawns.

**How to ID:** Look for a herbaceous plant that is between four and five feet tall. They produce a rosette of broad, hairless, ovate, compound pinnate leaves. They will give a pungent odor when crushed. Leaflets are arranged in pairs along the stalk, which develops during the second year. Hundreds of small yellow flowers are arranged in a loose, compound umbel.



John Cardina, The Ohio State University, Bugwood.org



Ohio State Weed Lab , The Ohio State University, Bugwood.org



Jeff Stachler, The Ohio State University, Bugwood.org



Rob Routledge, Sault College, Bugwood.org



Bruce Ackley, The Ohio State University, Bugwood.org

## 

| 1. | Mature<br>Form  | Best identified in its second year of growth,<br>the mature plant is 2-5' tall with hollow stems                                |
|----|-----------------|---|
| 2. | Leaves          | Alternate, compound leaves with 5-15 leaflets and finely toothed leaf edge.   |
| 3. | Flower          | Flower is a compound, flat-topped umbel<br>made up of clusters of yellow, 5-petaled flow-<br>ers which bloom from June-mid July |
| 4. | Stem            | Stem is smooth, without hairs, and is ribbed much like celery.  |
| 5. | Young<br>Growth | Its first year of growth is best identified by the leaf growing in a low rosette  |

#### 

Conium maculatum





## Quick ID: • • • • • • • • •

| 1. | Flower | Flower is white and less dense than Queen Anne's Lace     |
|----|--------|---|
| 2. | Leaf   | Leaves are delicate and may be purple along with the stem |

| Pedro Tenorio-Lezama, Bugwood.org |
|-----------------------------------|
|-----------------------------------|

## Queen Anne's Lace

Daucus carota

## Quick ID: • • • • • • • • •

| 1. | Leaves | Leaf appears delicate and re-<br>sembles domestic carrot leaves.                                 |
|----|--------|--|
| 2. | Flower | Flower similar to Hemlock but<br>often have a purple bloom in<br>the center of the white bundle. |



John Cardina, The Ohio State University, Bugwood.org



Rob Routledge, Sault College, Bugwood.org



David Cappaert, Bugwood.org



Katy Chayka, www.minnesotawildflowers.info, Bugwood.org

## Zizia aurea

**Golden Alexander** 

## Quick ID: • • • • • • • • • •

| 1. | Flower | Flower and stem are much smaller       |
|----|--------|--|
| 2. | Leaf   | Leaves are more delicate and<br>"airy" |

# Invasive

## **Yellow Iris**

Iris pseudoacorus

## **Detailed ID Notes:**

Flowers: Early summer

Fruits: Fruit matures in Oct.

Native Range: Europe, Asia, and northern Africa

**Distribution and Habitat:** Edges of streams and ponds, in open and forested floodplains, along shorelines, and in freshwater and brackish marshes.

**How to ID:** Look for a herbaceous 3-4' plant that has leaves that are up to 4'. These leaves are green with a bluish tint. Flowers may be cream colored, but are typically yellow.





Joseph M. DiTomaso, University of California -Davis, Bugwood.org

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



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



Nancy Loewenstein, Auburn University, Bugwood.org



Leslie J. Mehrhoff, University of Connecticut, Bug-

## 

| 1. | Flower  | Yellow flowers, often found in multiples late<br>April through June primarily in wetlands. |
|----|---------|--|
| 2. | Leaves  | Broad, sword-shaped leaves 3-4' tall which come out from a central base                    |
| 3. | Fruit   | Fruits are 6-angled capsules that open into 3 segments and release approximately 120 seeds |
| 4. | Rhizome | Flesh of cut rhizome is pink   |
| 5. | Growth  | Forms large, robust colonies in and around waterways                                       |





Elmer Verhasselt, Bugwood.org

| 1. | Flower          | Purple-blue flower with yellow patches which blooms May-June              |
|----|-----------------|---|
| 2. | Leaves          | Sword-shaped leaves 2-2.5' tall which come out from a central base        |
| 3. | Fruit           | Fruits do not open when mature  |
| 4. | Rhizome<br>(not | The fleshy rhizomes are poisonous to most animals and does not turn pink. |

## Northern Blue Flag Iris • • • • • • • • • •

Iris versicolor Flowers: June-July Fruits: Matures in September Native Range: Eastern United States



USDA Forest Service -Region 2 -Rocky Mountain Region , USDA Forest Service, Bugwood.org



Karan A. Rawlins, University of Georgia, Bugwood.org

#### Japanese stilt grass ••••••

Microstegium vimineum

Flowers: Mid-September

Fruits: Late September to early October

Native Range: Japan, India, Malaysia and China

**Distribution and Habitat:** Very prominent in disturbed areas, successional forests, forest wetlands, edges, and can thrive in shade.

**How to ID:** Look for a grass up to 2 m tall. Alternate light green leaves are 5-8 cm long and up to 15 mm wide. The leaves are lanceolate and have a silvery line running down the center of the blade. In late fall, it fades to pale greenish-yellow or turns purple. They quickly form dense monotypic stands.





Nancy Loewenstein, Auburn University,

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



Chris Evans, University of Illinois, Bugwood.org



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



Chuck Bargeron, University of Georgia, Bugwood.org

### Quick ID: • • • • • • • • • • • • • •

| 1. | Leaves   | Light green grass with shiny, <b>silvery stripe</b><br>down the leaf axis                     |
|----|----------|---|
| 2. | Growth   | Forms dense lawns and patches at wood-<br>land margins and otherwise semi-open                |
| 3. | Root     | Root structure is shallow and easy to pull out.   |
| 4. | Flower   | Like many grasses, the flower in non-<br>descript and greenish yellow.                        |
| 5. | Behavior | Often occurs in trail margins and forms<br>thick carpets which choke out all other<br>growth. |



#### Chris Evans, University of Illinois, Bugwood.org

#### Quick ID: • • • • • • • • • • • • •

| 1. | Leaves | Similar to Stilt grass in shape but <b>lacks the sil-<br/>very stripe</b> . Edges are rough and will catch<br>skin if you run your fingers along them |
|----|--------|---|
| 2. | Growth | Perennial with a strong root system and tufts of hair at the node   |
| 3. | Root   | Root is perennial and deep, difficult to pull out.  |



Chris Evans, University of Illinois, Bugwood.org

## Look-alikes

#### 

Leersia virginica

**Native Range:** Eastern North America, often found in partially-shaded lowland or wet areas.



Keener, B. R., A.R. Diamond, L. J. Davenport, P. G. Davison, S. L. Ginzbarg, C. J. Hansen, C. S. Major, D. D. Spaulding, J. K. Triplett, and M. Woods. 2018. Alabama Plant Atlas. [S.M. Landry and K.N. Campbell (original application development), Florida Center for Community Design and Research. University of South Florida]. University of West Alabama, Livingston, Alabama. ☆ 🌢

## Invasive

#### Small Carpetgrass

Arthraxon hispidus

## **Detailed ID Notes:**

Flowers: Sept.-Oct.

Native Range: Japan and Eastern Asia

**Distribution and Habitat:** Edge, floodplain forest, lake or pond, open disturbed area, pasture, river or wet meadow.

**How to ID:** Look for a low growing grass up to 1.5' tall. Leaves vary and are round to lance-shaped with hairs along the margins of the leaf blade. The bases of the leaves encircle the sheath. Flowers are borne on few to several spikes up to 3" long.

Hint: Has spikelets instead of the panicled seedhead of Deer-Tongue Grass. The stems also root at the nodes, differentiating it from other grasses.



Bill Harms, Patuxent Research Refuge Plant inventory Project, Laurel, MD

Bruce Ackley, The Ohio State University, Bugwood.org



Bill Harms, Patuxent Research Refuge Plant inventory Project, Laurel, MD



Leslie J. Mehrhoff, University of Connecticut, Bug-wood.org

## 

| 1. | Leaves                    | Alternate, oval to lance-shaped foliage; 1-<br>3" long and 1.5" wide with heart-shaped<br>bases clasping the stem; margins have<br>visible hairs |
|----|---------------------------|--|
| 2. | Growth                    | Annual plant grows to 1.5' tall and forms a monoculture in affected areas.   |
| 3. | Flower                    | Flowers in early fall with 1-3" long spikes  |
| 4. | Seed                      | Seeds are slender and yellow.  |
| 5. | Habitat<br>(not<br>shown) | Wet areas like streambanks and flood-<br>plains.   |



John Cardina, The Ohio State University, Bugwood.org

| Quick ID: • • • • • • • • • • • • • • • • • • • |                                 |   |
|---|---------------------------------|---|
| 1.  | Leaves                          | Alternate, oval to lance-shaped foliage with<br>heart-shaped bases completely surrounding<br>the stem. Leaves have no visible hairs on<br>margins |
| 2.  | Growth                          | Annual which grows to 4' tall, much larger than Arthraxon.  |
| 3.  | Flower                          | Flowers in early fall with 1-3" long spikes that look spares compared with carpetgrass.   |
| 4.  | Seed                            | Seeds are small and yellowish, more stocky than carpetgrass.  |
| 5.  | Winter<br>Growth<br>(not shown) | Low rosette of basal leaves   |



John Cardina, The Ohio State University, Bugwood.org

# Look-alikes

## Deer Tongue Panic Grass • • •

Dichanthelium clandestinum Flowers: Sept.-Oct. Fruits: Fruits matures in Oct. Native Range: Eastern United States



John Cardina, The Ohio State University, Bugwood.org



Ken Chamberlain, The Ohio State University, Bugwood.org

Grass Herbaceous

## Invasive

#### Chinese Silver Grass

Miscanthus sinensis

## **Detailed ID Notes:**

Flowers: Mid-August

Fruits: Fruit matures in Oct.

Native Range: Eastern Asia

**Distribution and Habitat:** Roadsides, forest edges, old fields, and other disturbed areas.

**How to ID:** Look for a medium to large sized perennial ornamental grass with an uptight broad columnar to upright arching grow habit. The leaves have sharp tips and rough margins. The mid-ribs are silver in color. The terminal panicle is fan-shaped, long and silvery to pink in color.



Chris Evans, University of Illinois, Bugwood.org



Chris Evans, University of Illinois, Bugwood.org





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

Lauren Quinn, Bugwood.org



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

Quick ID: • • • • • • • • • • • • • •

| 1. | Growth | 6-10' tall, clumping perennial grows primarily in drier areas                             |
|----|--------|---|
| 2. | Seeds  | Seeds ripen in fall and persist through winter  |
| 3. | Leaves | Leaves are 3-6' long, often show silvery stripe and very rough edges.                     |
| 4. | Form   | Over 50 cultivars which vary in color and pattern   |
| 5. | Flower | Blooms are showy pink to silver loose bunch-<br>ing clumps of flowers, similar to grains. |



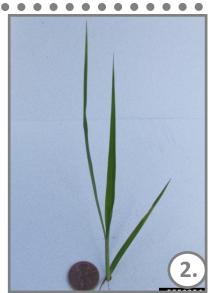
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Andropogon gerardii Native Range: Central and eastern United States

Chris Evans, University of Illinois, Bugwood.org

### Quick ID: • • • • •

| 1. | Flower | Flowers resemble a turkey foot with several skinny stems at the top of 4-8' stalk |
|----|--------|---|
| 2. | Leaves | Leaves are tinged red in the summer   |



William Johnson, IDNR, Iowa Department of Natural Resources, Bugwood.org



Eastern Gamagrass • • • *Tripsacum dactyloides* Native Range: Eastern United States

Karan A. Rawlins, University of Georgia, Bug-wood.org

## Quick ID: • • • • • • • • • • • • •

| 1. | Flower | Flowers are not showy with top 2/3 is yellow/ |  |
|----|--------|---|--|
|    |        | purple/red male flowers with bottom portion   |  |
|    |        | as delicate white female flowers. Flowers     |  |
|    |        | present July-August.                          |  |
|    |        |   |  |

2. Growth Leaves show well defined white midrib and can grow to 10' tall.



Karen A. Rawlins, University of Georgia, Bugwood.org



### 

Phragmites australis Native Range: Europe

Jil Swearingen, USDI National Park Service, Bugwood.org

#### Quick ID: • • • • • • • • • • • • • •

- **1.** Flower Showy but darker in color than silver grass
- 2. Growth Leaves lack the white midrib and stems are larger than silver grass.



Richard Gardner, UMES, Bugwood.org



## Switchgrass

Panicum virgatum Native Range: Throughout North America

James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org

### Quick ID:•••

**1.** Flower Showers and seed heads are airier

2. Growth 3-6', growth is less robust than silver grass



Howard F. Schwartz, Colorado State University, Bugwood.org