

# Invasive Plant ID

## & Their Native Look-Alikes



This slideshow contains some good quick ID characteristics, but is not all-encompassing.

Check resources in the speaker notes to learn more about each plant!



# Trees, Shrubs, & Brambles

# Callery Pear (aka Bradford Pear) - *Pyrus calleryana*



Ovate, glossy, 'leathery' foliage

Often with vertical branching

Twigs often thorny - up to 3"



Pyramid or egg-shaped tree



Stamens **SHORTER** than petals - STINKY Flowers

## Native Look-Alike



# Native Plums (eg. Chickasaw Plum - *Prunus angustifolia*)



Stamens **LONGER** than petals,  
anthers orange-red

Bark more reminiscent of  
cherries



Also has thorny twigs

Leaves are more narrow



## Native Look-Alike



Native/cultivated Apples (eg. Southern Crabapple - *Malus angustifolia*)

Flowers w/  
slightly pink  
hue,  
becoming  
white w/ age



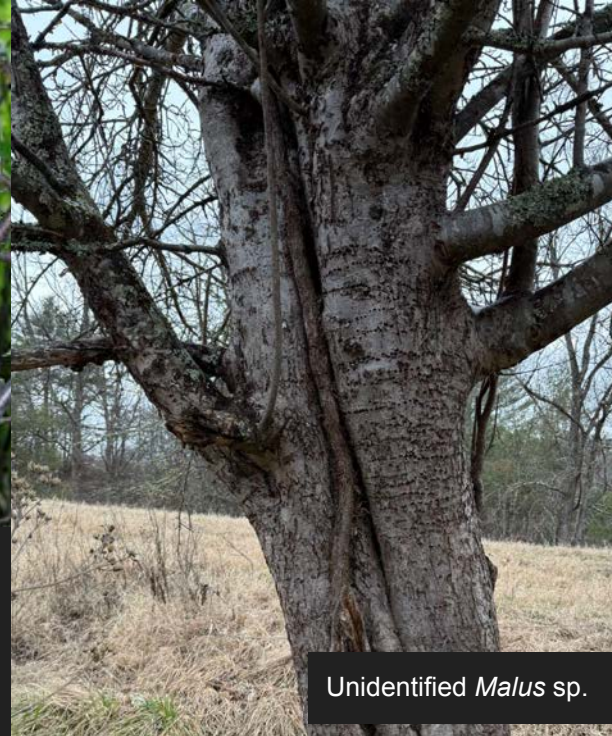
Older  
branches  
often w/  
thorns



Leaves usually more narrow  
than Callery pear



Branching more horizontal  
compared to Callery pears  
more vertical branching



Unidentified *Malus* sp.

Targeted by yellow bellied  
sapsuckers – rows of holes in bark



# Sweet cherry (aka European cherry) - *Prunus avium*

Flowers **before**  
leafing out in late  
winter/early spring



0.5" - 1" fruit, red  
when ripe



Golden-brown to  
grey-silvery bark,  
darkening with age





## Native Look-Alike

# Black cherry - *Prunus serotina*

Bark more silvery-grey,  
darker, getting “burnt potato  
chip” texture with age



Maroon to nearly  
black fruits when  
ripe

Flowers **well after**  
leafing out, later in  
spring. Flowers in  
**racemes**



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Can become a large tree, 20"+ DBH



# Tree of Heaven - *Ailanthus altissima*

Leaflet edges smooth, but  
notched at base

Light yellow flowers turn  
into red winged seeds



Smells of rotten  
peanut butter  
when bark cut or  
leaves crushed

Shield-shaped  
leaf scar





## Native Look-Alike

Sumac - (eg. Smooth sumac - *Rhus glabra*)



Leaflets serrate

Leaf scar nearly  
encircling  
whitish bud

Usually a  
smaller shrub,  
rarely getting  
over 5" DBH

Light yellow  
flowers turning  
into red fruits



## Native Look-Alike

### Black walnut - *Juglans nigra*

Tomentose  
(fuzzy) buds

Unique smell on  
most parts of plant  
— almost citrusy



Leaf edges **not**  
notched at base



'Monkey face'  
leaf scar

Chambered  
pith



Bark furrows  
at young age





NNIS

# Princess Tree - *Paulownia tomentosa*



Large, velvety leaves in  
opposite arrangement

Trunk, branches, and twigs  
often hollow in the middle



Seed pods with  
'star' at base



## Native Look-Alike

### Southern Catalpa - *Catalpa bignonioides*



Bark becoming  
more furrowed



Leaves also big and heart-shaped, either  
opposite or whorled arrangement



Seed pods  
look like string  
beans

Twig w/  
continuous pith –  
NOT hollow



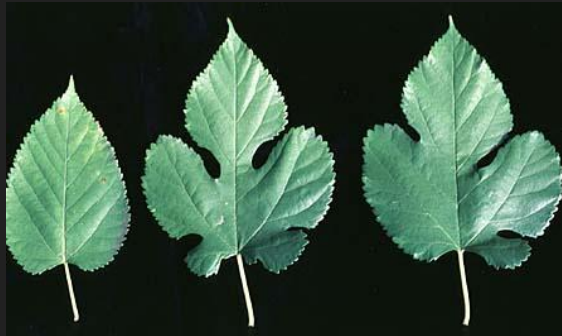


# White Mulberry - *Morus alba*

30-50 ft deciduous tree



Fruits grow in clusters, ranging from white to red in color



Alternate, glossy green leaves, varying in shape from simple to lobed on the same tree



Bark is grey-brown with ridges that twist back and forth

## Native Look-Alike

# Red Mulberry - *Morus rubra*

Fruits are longer  
and grow more  
spread out



Alternate leaves with up to 3 lobes, less glossy and longer



Grey bark with scaly texture





# Chinese Privet - *Ligustrum sinense*

Leaves opposite,  
closely spaced

Bark smooth w/ small  
bumps (lenticels)



Nearly evergreen,  
can lose leaves in  
winter



Spreads clonally  
through rhizome



Dark blue round  
fruit



## Native Look-Alike

### Black haw - *Viburnum prunifolium*



Smooth bark when young, becoming rough with age

Opposite leaves spaced further apart than privet, larger



Buds longer than privet, clasp stem

Dark blue/black fruits more oblong than privet fruits



Old-style TV roof antenna-looking branching pattern



## Native Look-Alike

# Coralberry - *Symphoricarpos orbiculatus*



Opposite  
leaves, less  
glossy than  
privet

Pink fruits in  
bunches  
along twig



Peely bark,  
more 'dainty'  
plant than privet



Small white  
flowers at  
nodes





# Bush Honeysuckle - *Lonicera maackii*



Opposite leaf  
arrangement

White tubular  
flowers appear in  
pairs at nodes,  
becoming red  
berries

Large shrub  
reaching 15 feet in  
height. Will often  
have an arcing  
form, bending  
towards available  
lights



Bark can  
become peely  
when mature,  
but distinct  
from coralberry





# Goat Willow (aka Pussy willow\*) - *Salix caprea*



UGA1261090

Flowers (called catkins) form in early spring, before leafing out, from fuzzy buds



Bark w/ orange hues, may have minor 'fluting' like Musclewood (*Carpinus caroliniana*). Smooth, becoming furrowed w/ age

Leaves are elliptical, much more round than native willows



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## Native Look-Alike

### Black Willow - *Salix nigra*



Bark much more furrowed at younger age



Leaves more narrow than Goat willow, emerge at time of flowering





## Native Look-Alike

### Silky willow - *Salix sericea*

Bark smoother than black willow, but distinct from goat willow

Thin leaves are whitish, have silky-hairy undersides



# Autumn olive - *Elaeagnus umbellata*

Buds may appear naked, actually w/ four scales



Twigs and leaf undersides w/ silvery sheen



Sweet smelling white flowers, becoming red edible berries





## Native Look-Alike

# Witch Hazel - *Hamamelis virginiana*

True naked bud (lacks scales), fuzzy, shaped like a deer hoof or rabbit foot



Leaves with wavy margin, brown seed pods form along twig



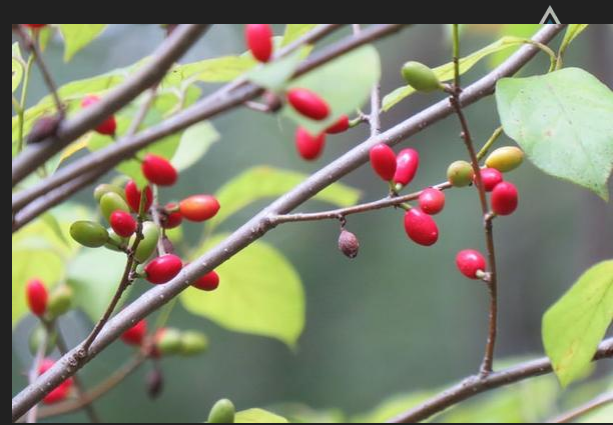
Yellow blooms around October, calyx may persist through winter



## Native Look-Alike

### Spicebush - *Lindera benzoin*

Red fruits solitary or  
in small clusters on  
short stalks



Aromatic axillary  
clusters of small  
yellow flowers



Crushed leaves  
have a spicy  
fragrance



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# Burning Bush - *Euonymus alatus*

Corky 'wings' on branches can vary widely in thickness and appearance



Purplish capsules split to reveal 1-4 red berries



## Native Look-Alike



# Strawberry Bush - *Euonymus americanus*

New stems deep green,  
usually smooth



Older stems  
darken, may get  
some corkiness



Larger pink capsules  
with 5 red fruits (some  
may fall)





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# Japanese Barberry - *Berberis thunbergii*



Spatulate leaves go from green to maroon in fall/winter, can persist on the plant in winter

Red berries persist on the plant into winter

Small sharp thorns along stem

Wood will have a deep yellow color

Small to medium shrub reaching 6 feet tall, can be 7+ feet wide



## Native Look-Alike - Uncommon in WNC & Piedmont



### American barberry - *Berberis canadensis*



Spiny, bright green leaves  
and reddish-brown stems  
with three-part spines



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## Trifoliate orange - *Poncirus trifoliata*



Shrub to small tree, reaching up to 20 feet tall. Skeleton of thorns can be seen in winter

Trifoliate. Glossy green leaflets. Leaves can persist longer than most natives



Fruits are small bitter oranges



# Multiflora rose - *Rosa multiflora*



White (sometimes pinkish) flowers in clusters at ends of branches



Thorns often thicker, more curved



Fruits, called "hips", smaller than native roses, smooth surface

Bushes often larger, more 'gnarly' than natives





## Native Look-Alike

### Swamp rose - *Rosa palustris*



Flowers larger, deeper pink, only one or a few per cluster. May be at leaf axil or end of branch



Leaves usually more elongated/skinny



Stipules not fringed – “entire”



Thorns often less curved, may be exceptions



Bushes usually not as large, more ‘dainty’, stems can shoot up vertically from ground



Hips slightly larger, retain short hairs



# Armenian/Himalayan Blackberry- *Rubus armeniacus*



Leaves of 5 leaflets, sometimes 3, with white undersides



Prickly perennial shrub that can form impenetrable thickets up to 15 ft. tall

White to pale pink flowers have 5 petals and are 1 in. wide

5-angled stem with stout, curved thorns





## Native Look-Alike

# Common blackberry - *Rubus allegheniensis*

Leaves alternate  
and palmately  
compound with 3-5  
leaflets



Fruit is a round to  
cylindric cluster,  
maturing from green  
to red to black



5 petaled white  
flowers form in loose  
terminal clusters at  
the end of stems





# Wineberry - *Rubus phoenicolasius*

Compound leaves  
with 3 rounded  
leaflets, sometimes 5



Red hairy/thorny stems



Small white flowers  
surrounded by larger  
sepals



Deep red berries,  
often sticky



Sepals on flower buds  
with red trichomes





## Native Look-Alike

# Purple-flowered raspberry - *Rubus odoratus*



Berries look like flattened cultivated raspberries

Larger pink flowers



Simple leaf (not compound) reminiscent of maple leaf



New stems with red hairs, mature stems woody, thornless, with exfoliating bark



# Japanese spiraea - *Spiraea japonica*

Flowers/seed heads  
arranged in '**corymbs**'

Leaves ovate,  
'doubly serrate'

Pink flowers





## Native Look-Alike

\*Exception—see *Spiraea virginiana*



# Native spiraeas (eg. White meadowsweet - *Spiraea alba*)

White, sometimes pinkish  
flowers



Flowers and seed heads  
arranged in 'panicles'\*



Leaves very similar, serrations  
may not be as intense



## Native Look-Alike



# Virginia meadowsweet - *Spiraea virginiana*

Leaves very similar, serrations  
may not be as intense

Rare, federally threatened  
species—population at  
Needmore Game Lands

White flowers, seed heads  
arranged in 'corymbs'



©Hugh and Carol Nourse





## Leatherleaf mahonia - *Mahonia bealei*



Evergreen shrub with pinnately compound leaflets



The fruits are green berries that turn bluish black. They hang in grapelike clusters.



Flowers in late winter/early spring. Has fragrant, lemon-yellow flowers.

Native to China, planted as an ornamental

## Native Look-Alike



American Holly - *Ilex opaca*; A woody, broadleaf evergreen understory tree

Dark green, dull, spiny, alternately arranged leaves; very similar leaves to *Mahonia*, but **not compound**. Red berry-like drupes on female plants only (dioecious)



Smooth, light gray-white bark, may be spotted



Serves as a host plant for the Henry's elfin butterfly





## Border Forsythia - *Forsythia x intermedia*

A fast-growing, flowering, deciduous perennial shrub in the Oleaceae family. Often growing near old homesites.

Flowers are yellow, bell-shaped, with four petals. Blooms in the spring.



Branches are square, four-ridged, and brown. Opposite branching with ovate to lanceolate green leaves which have toothed margins.



Upright-arching to spreading stems that are planted along borders.





# Vines



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# Asiatic bittersweet - *Celastrus orbiculatus*



Twigs smooth with small lenticels, becoming rough, sometimes flaky w/ age

Fruits in **leaf axils** and **ends of stems**, 2-3 per cluster, yellow capsule



Often found in profusion, girdling trees

Leaves ovate to nearly round, young leaves with 'drip tip'

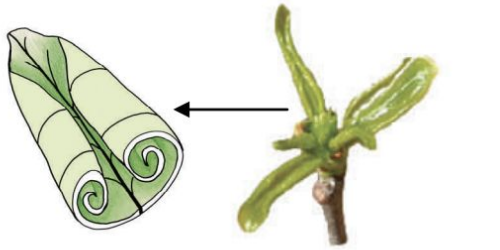
Roots are often bright orange



## Native Look-Alike, not common in NC

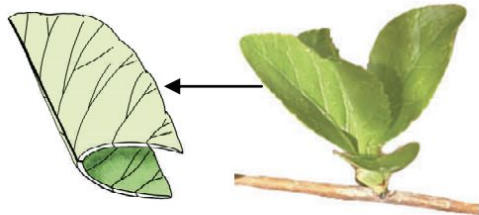
### American bittersweet - *Celastrus scandens*

When leafing out, leaves unfurl from sides - 'involute'



*C. scandens*

Compare to Asian bittersweet leaves folded in half - 'conduplicate'



*C. orbiculatus*

Leaves more narrow,  
fruits/flowers only at  
**ends of stems**



6+ fruits per cluster,  
**orange capsule**



Hybrids of american x asiatic  
bittersweet have been found where  
these species co-occur. These  
offspring usually exhibit hybrid vigor.



## Native Look-Alike



# Dutchman's pipe - *Aristolochia macrophylla*



May be confused with bittersweet in winter, as they have similar form/habit

Feels different in the hand than bittersweet, less dense and less rigid—more bendy



Twigs green, becoming brown with vertical splits in mature bark

Large leaves



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# Kudzu - *Pueraria montana* var. *lobata*



UGA2307160

Often with lobed leaflets, leaf becoming larger than a hand



UGA2307166

Older bark smooth with horizontal lenticels—no aerial roots

Wood is very soft, cuts without much resistance

Climbs into tree crowns aggressively

Young stems with dense brown hairs





## Native Look-Alike

\*This common name has a shady history –  
[learn more here](#)



# Ground nut (aka Hog peanut\*, Mouse bean) - *Amphicarpaea bracteata*



Stems less hairy, hairs  
much lighter in color

Herbaceous perennial—does  
not form a woody stem



Twines around plants on  
forest floor, but does not  
climb into canopy



Leaflets without lobes,  
leaf usually smaller  
than a human hand

## Native Look-Alike

# Virginia creeper - *Parthenocissus quinquefolia*

Mature vines may be confused with those of kudzu



Virginia creeper often retains aerial roots on mature stems



Aerial roots with adhesive pads used to climb trees



Leaves with 5 leaflets arranged palmately



# Porcelain berry - *Ampelopsis brevipedunculata*

Variation in leaf shape



Pith white

Flowers in 'cymes'  
that face upwards

Multi-colored  
'pastel' berries,  
white flesh

Mature bark  
shaggy but not  
peely



## Native Look-Alike

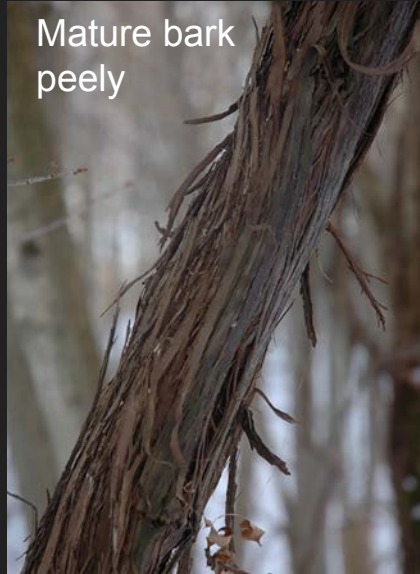
### Native grapes - *Vitis* spp.



Variation in  
leaf shape



Mature bark  
peely





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# Japanese honeysuckle - *Lonicera japonica*

Thin reddish twigs,  
becoming peely w/age

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Semi-evergreen, can  
lose leaves in winter

Leaves ovate,  
sometimes lobed,  
underside green

White flowers and  
dark blue fruits at leaf  
axils, some cultivars  
have red/pink flowers



UGA1150068



UGA0016120



Miss. Dept of Ag.

## Native Look-Alike

Native twining honeysuckles (eg Coral honeysuckle - *Lonicera sempervirens*)



Red flowers  
and fruits at  
ends of twigs

Leaves at end of  
twigs are fused

Leaves ovate,  
whitish undersides,  
semi-evergreen

Bark becoming peely





## Native Look-Alike - more common in Piedmont/Coastal Plain



### Carolina jessamine- *Gelsemium sempervirens*



Yellow bell-shaped flowers



Similar form to  
honeysuckles—  
twining vine

Leaves lanceolate, glossy  
and fully evergreen



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Climbs by twining

# Chinese wisteria - *Wisteria sinensis*



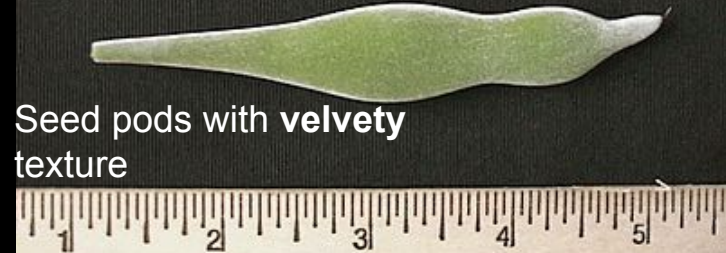
Long clusters of purple flowers

Leaves with 7-13 leaflets, smooth margins (sometimes wavy). Terminal leaflet largest, tapering towards twig

Alternate leaf arrangement



Seed pods with **velvety** texture





## Native Look-Alike

# American groundnut - *Apios americana*

Herbaceous perennial vine –  
no persistent woody  
structures over winter



Compact racemes of  
red-pink flowers



Thinner, overall smaller  
seed pod than Wisteria.  
Not velvety



Compound leaves with  
5-7 leaflets, alternate leaf  
arrangement. Leaflets all  
relatively the same size

## Native Look-Alike

# Trumpet vine - *Campsis radicans*



Leaves with 5-11 leaflets,  
serrate margins

**Opposite leaf  
arrangement, climbs with  
adhesive aerial roots**



Orange-red  
trumpet-shaped flowers



## Native Look-Alike - uncommon in WNC, more of a Coastal species



### American wisteria - *Wisteria frutescens*



Sometimes in a 'shrubby' form, but will often climb as a vine

Less aggressive than invasive wisteria, commonly found in wet areas



Flower clusters usually more compact, but some varieties can be longer



Seed pods are **smooth**, leaflets generally smaller

# Sweet Autumn Clematis - *Clematis terniflora*



Flowers profusely  
from late summer  
to fall, plume-like  
seeds



Leaf margins are  
smooth, 'entire'





## Native Look-Alike



# Virgin's bower, Woodbine - *Clematis virginiana*



Flowers from mid summer  
to early fall, dense  
plume-like seed heads



Leaf margins are  
toothed, 'dentate'



NNIS

## Winter creeper - *Euonymus fortunei*

Twigs very similar to other *Euonymus* spp., but have evergreen leaves

Variegated cultivars are commonly sold in nurseries

Trailing vine, can act as ground cover, or climb trees with aerial roots



**Native Look-Alikes - see native *Euonymus* spp.**



## Japanese climbing fern - *Lygodium japonicum*

A terrestrial, creeping fern.  
Grows rhizomatically and  
forms a dense mat.



Has spores along  
the margins of the  
lacy fronds that are  
dispersed by wind.

Fronds  
have  
elongated  
pinnules  
and twining  
stems  
(rachis)



## Native Look-Alike



American climbing fern - *Lygodium palmatum*; similar fern-like leaves and vining characteristics

Lobed leaflets  
that appear  
hand-like

Semi-evergreen, climbing  
and creeping vine

Fertile leaves  
at the top of  
the plant.  
Spores on the  
back





# Grasses

# Chinese silver grass - *Miscanthus sinensis*

Silvery mid-vein on leaves

Can get BIG - up to 12ft



UGA0016162



Densely bunched grass, grows in disturbed areas



Fan shaped seed head between 4-14" long, red turning tan/silver



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# Tall fescue - *Schedonorus arundinaceus*

Sharply angled  
leaves at the collar  
region

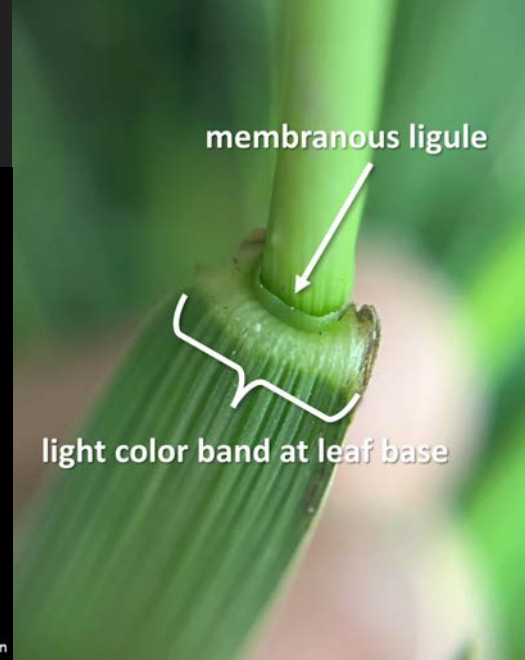
Clumping grass can  
reach 5ft if not  
mowed



Tall  
fescue  
with  
prominent  
veins



Kentucky  
bluegrass  
(only  
midrib is  
clearly  
visible)



NNIS

# Golden Bamboo - *Phyllostachys aurea*

a woody, perennial,  
reed-like plant that  
can reach heights up  
to 30 feet



Lance-shaped  
leaves are  
arranged  
alternately along  
the stem in fan-like  
clusters



## Native Look-Alike

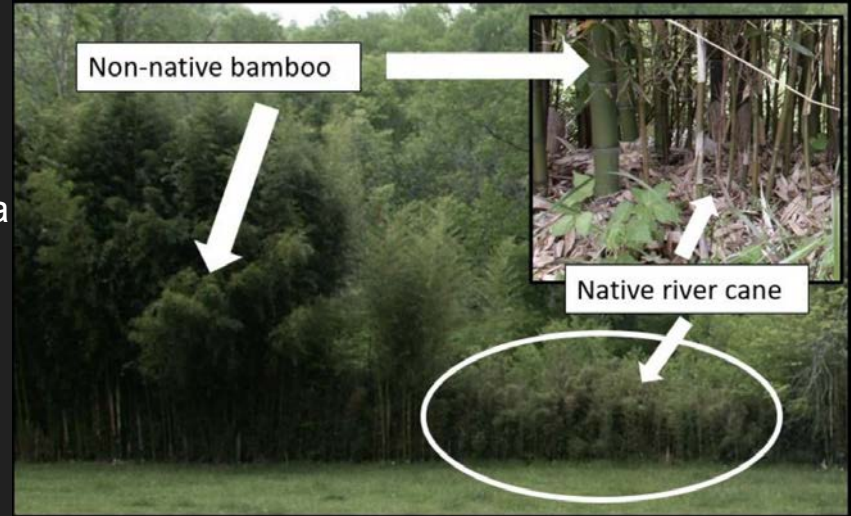


# Native bamboos (eg. River cane - *Arundinaria gigantea*)



Stems will be smooth – non-native bamboos have a groove on one side of stem

Branches shoot almost straight up, while non native bamboo branches angle at 45 degrees to almost perpendicular



River cane stems are usually under 1 inch diameter and stay under 15 feet tall unless very old – non native bamboos can get much larger

# Wavyleaf Basketgrass - *Oplismenus hirtellus* subsp. *undulatifolius*



Low-lying, trailing perennial grass, branching and rooting at nodes along creeping stems called stolons



Flowering spikelets have glumes (lower bracts) with very long awns (extended, pointed tips). The awns produce a sticky substance

Leaf blades are about 0.5 to 1 inch wide, between 1.5 and 4 inches long, and deep green with rippling waves across the grass blades from base to tip. Leaf tips are elongated



Leaf sheaths and stems are noticeably hairy, although the hairs are short



NNIS

# Reed Canary Grass - *Phalaris arundinacea*

Membranous ligule

Upright stems grow to 2 meters tall from the rhizomes, and its flat leaf blades measure up to 0.5 m long by 2 cm wide



Panicles are compact and resemble spikes when immature. When in full bloom, inflorescences change in color from pale green to dark purplish, becoming straw colored when fruits have developed and dispersed



Look for open sheaths, hollow stems, small clasp ing auricles and membranous ligules



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# Mordania Grass - *Murdannia keisak*



Leaves are alternate, lance-shaped, and up to 3 in. (7.6 cm) long



small, pink, 3-petaled flowers occur singly or in small clusters at the apex of the stems and in the leaf axils

Invades water edges and marshes and often grows immersed. It forms dense mats that out-compete native vegetation





## Johnsongrass - *Sorghum halepense*

Herbaceous perennial grass native to the Mediterranean region. Spreads aggressively by thick rhizomes and seeds

Flowers are called a “panicle” or a loose branching cluster of flowers, as in oats

Somewhat airy in appearance. The pencil is pyramidal and branches whorled

Leaves have central veins that are pale-colored



## Native Look-Alike



Indian Grass - *Sorghastrum nutans*; a native grass with similar plumelike seed heads



A tall, bunching grass with blue-green blades

Large plume-like, soft, golden-brown panicles



Stiff, vertical flowering stems which holds feathery flowers highlighted with yellow stamens







# Forbs

## NNIS

Purple Loosestrife - *Lythrum salicaria*; a wetland plant with showy purple flowers arranged on flower spikes. Native to Europe & Asia

Very showy, deep pink to purple flowers. Arranged in a dense terminal spike-like flower cluster

Annual stems arise from a perennating rootstock. Stems are woody, stiff, and square-shaped, with 4-6 sides.

Leaves are simple, narrow, lance-shaped, with smooth edges and fine hairs. Leaf arrangement is opposite or sometimes whorled





## Native Look-Alike



Fireweed - *Chamerion angustifolium*; both have pinkish-purple floral spikes

Deep pink-purple flowers with four roundish petals

Grows in large patches; the common name comes from being the first plant to appear after fires

Wide willow-like lanceolate leaves with pinnate veins. Arranged alternately & spiral up the stem

Wind dispersed seeds



## Yellow Flag Iris - *Iris pseudacorus*; native to Eurasia and Africa

Showy yellow flowers that appear in the spring, which has green sword-shaped clumping foliage

A perennial, aquatic, herbaceous plant. Spreads through rhizomes and forms large clumps. Capsules form from flowers, filled with flattened D-shaped seeds





## Native Look-Alike



### Blue flag iris - *Iris virginica*

Leaves are strap-like and have a pronounced midrib in the center



Flowers light blue to violet



## Native Look-Alike



Dwarf Crested Iris - *Iris cristata*; also in the Iridaceae family, similar shaped flower and foliage.

Grows in clusters with narrow, pointed leaves

The sepals of the blue-violet flowers are marked with a central yellow or white, purple striped band

Blooms in early spring, forming a thick carpet of purple





NNIS

# Japanese knotweed - *Reynoutria japonica*

Leaves vary in shape, often with flattened base. Stem zig-zags at nodes

New shoots emerge mid-spring



Very aggressive, often grows in dense clumps

White flowers arranged in spikes, becoming winged seeds





## Native Look-Alike

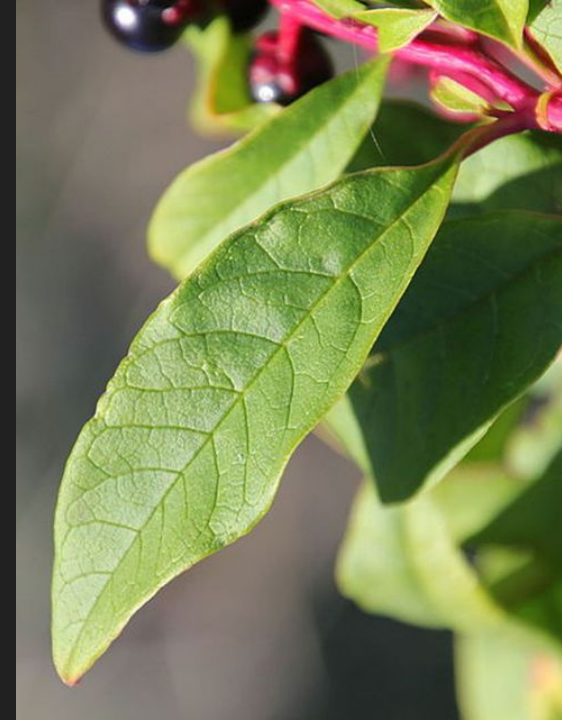


### Pokeweed - *Phytolacca americana*

Clusters of dark, glossy berries in summer



Stems smooth, light pink to magenta



Large green leaves that taper at both ends



## Shrubby lespedeza - *Lespedeza bicolor*



Trifoliate. Ovate leaflets, the biggest & most round leaves out of the 4 *Lespedeza* species on the slideshow, 3-4" long



Pink/purple flowers



**Largest of the 4 species in the slideshow**, 5-10 feet tall. Only species of the 4 that has a **semi-woody** stem that can persist over winter. Seen in thickets under disturbed forest canopy

# Sericea lespedeza - *Lespedeza cuneata*



Trifoliate. Small, **slender leaflets are usually 'wedge' shaped, with widest part at the end.**



White/cream colored flowers with some purple near the throat



3-6 feet tall, herbaceous perennial. Often seen on roadsides/disturbed forest edges



## Native Look-Alike

\*Many native *Lespedeza* spp. These are just some more common examples for WNC. Hybridizing is possible, even with NNIS



# Round-headed bush-clover - *Lespedeza capitata*



Trifoliate. Leaflets can vary in width, always more slender than *L. bicolor*. **Not as much of a 'wedge' shape as *L. cuneata*.**

**Distinctive clusters of fruits**



Herbaceous perennial reaching 2-5 feet tall



White flowers with pink/purple near throat in rounded heads, many hairy bracts

## Native Look-Alike

### Slender bush-clover - *Lespedeza virginica*



Trifoliate. Slender leaflets,  
**not as 'wedge' shaped**  
as *L. cuneata*.

Pink flowers often with  
lighter spots of white.

Herbaceous  
perennial

Slender stalks  
reaching 3-6  
feet tall



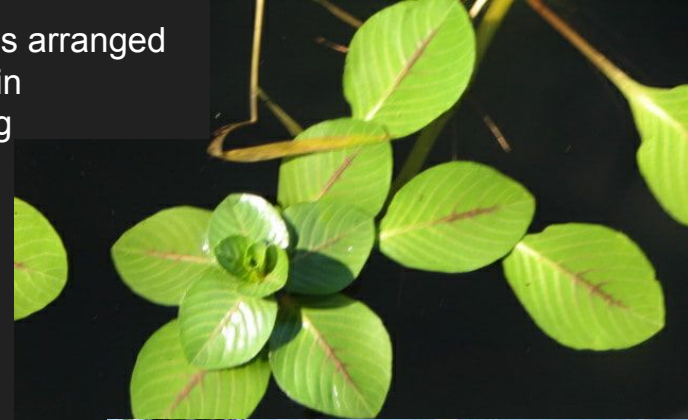


# Creeping Water Primrose - *Ludwigia hexapetala*

In summer, new leaves are lanceolate. The alternate pattern of the leaves becomes more apparent once the plants develop past the rosette stage



Ovate leaves arranged as rosettes in winter/spring



Yellow flowers with 5 to 6 petals are born well above the surface

Typically begins infesting aquatic sites by establishing right along the shoreline. Over time the rhizomes "creep" out to deeper water

