

Section 1
Woody Plants:
Trees & Shrubs

Acer spp.
Native trees

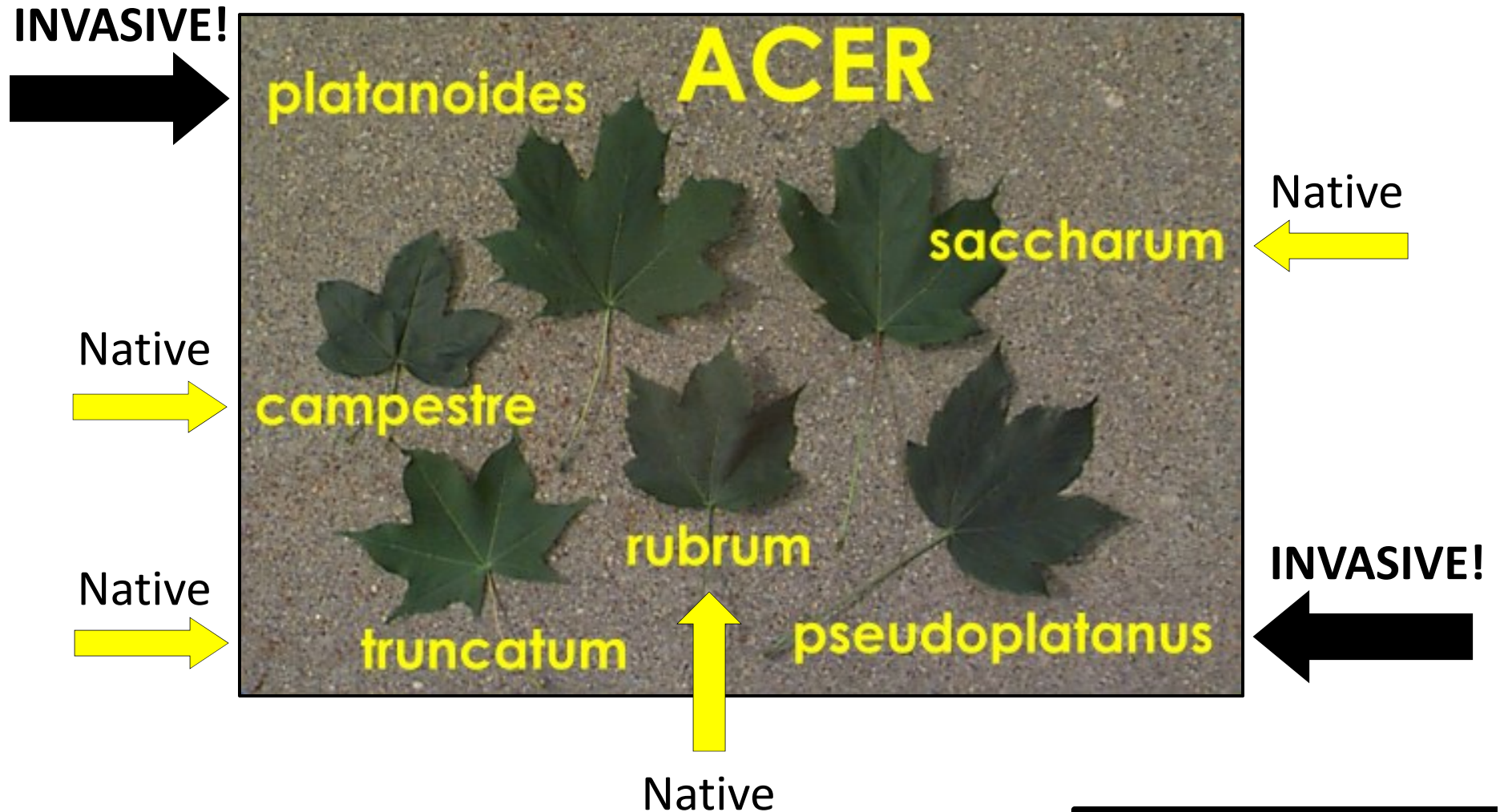


Fruits of sugar maple (Acer saccharum)



Fruits of red maple (Acer rubrum)

Acer spp.
Leaf comparison of **native** & invasive trees



Leaf comparison of several *Acer* species.
Photo: USDA PLANTS database

Acer ginnala – Amur Maple
Potentially invasive tree



Photo: Stacy Leicht, IPANE



Photo: Virginia Tech Dendrology Program

Acer platanoides – Norway Maple

Invasive tree



Flowers with young leaves. Photo: Les Mehrhoff, IPANE



Fruits. Photo: Virginia Tech Dendrology Program



Photo: Les Mehrhoff, IPANE



The leaf petioles secrete a milky sap.
Photo: Les Mehrhoff, IPANE

Acer pseudoplatanus – Sycamore Maple
Potentially invasive tree



Photo: Virginia Tech Dendrology Program



Photo: Stacy Leicht, IPANE

Ailanthus altissima – Tree-of-heaven

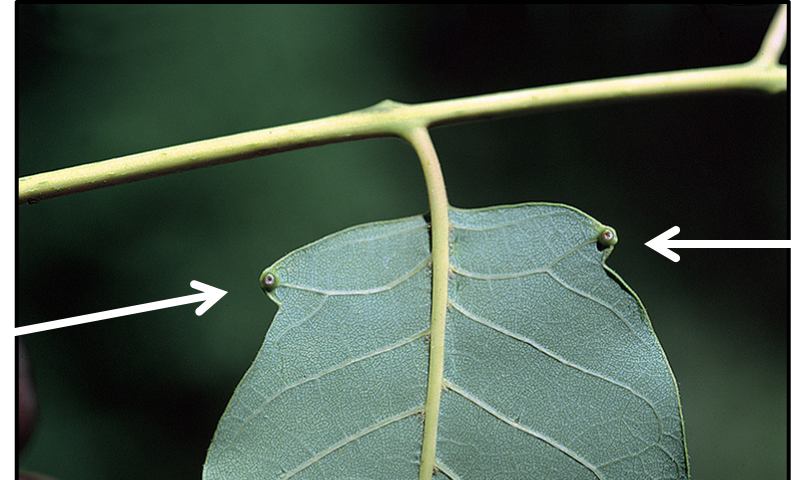
Invasive tree



A patch of tree-of-heaven. Photo: Les Mehrhoff, IPANE



Flowers. Photo: Les Mehrhoff, IPANE, Bugwood.org



Leaf underside showing basal glands.
Photo: James H Miller, USDA Forest Service, Bugwood.org



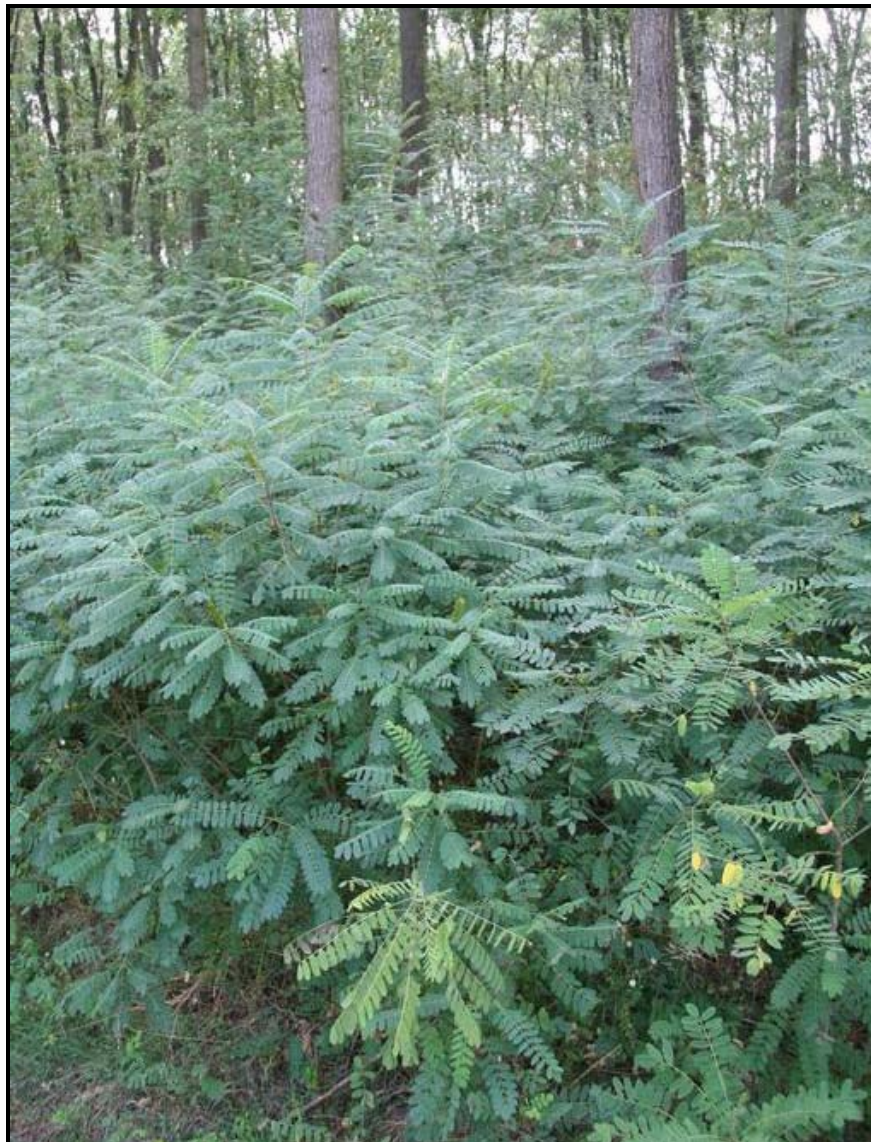
Leaflets. Photo: Les Mehrhoff, IPANE

Ailanthus altissima – Tree-of-heaven
Invasive tree



Tree-of-heaven in Haddam, CT. Photo: Donna Ellis, UConn

Amorpha fruticosa – False Indigo
Potentially invasive shrub



False indigo infestation.
Photo: Robert Vidéki, Doronicum Kft., Bugwood.org



False indigo has fragrant purple flowers.
Photo: R.W. Smith, www.wildflower.org

Amorpha fruticosa – False Indigo
Potentially invasive shrub



False indigo foliage and flowers. Photo: Les Mehrhoff, IPANE



Fruits. Photos: Les Mehrhoff, IPANE

Berberis thunbergii – Japanese Barberry

Invasive shrub



Seedlings from purple cultivars may be purple or green.

Photo: Les Mehrhoff, IPANE



Flowers (left) and fruits (right). Photos: Les Mehrhoff, IPANE



Japanese barberry invasion. Photo: Donna Ellis, UConn

Berberis vulgaris – Common Barberry Invasive shrub



Flower clusters. Photo: Les Mehrhoff, IPANE



Fruit clusters. Photo: Les Mehrhoff, IPANE



Top: *Berberis vulgaris*. Middle: hybrid. Bottom: *Berberis thunbergii*.
Photo: Les Mehrhoff, IPANE



Note serrated leaf margins. Photo: Stacy Leicht, IPANE

Elaeagnus angustifolia – Russian Olive
Potentially invasive shrub



Flowers. Photo: Les Mehrhoff, IPANE



Mature fruits. Photo: Barry Rice, Bugwood.org



Immature fruits.

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

Elaeagnus umbellata – Autumn Olive Invasive shrub



Left: Flowers. Middle: Close-up of stem with brown lenticels. Photos: Les Mehrhoff, IPANE.
Right: Some branches have sharp thorns. Photo: Nicole Gabelman, UConn



Autumn olive invasion. Photo: Les Mehrhoff, IPANE

Elaeagnus umbellata – Autumn Olive
Invasive shrub



Elaeagnus umbellata – Autumn Olive
Invasive shrub



Autumn olive produces high numbers of fruits. Photo: Les Mehrhoff, IPANE

Comparison

Elaeagnus umbellata vs. *Elaeagnus angustifolia*

Autumn Olive vs. Russian Olive

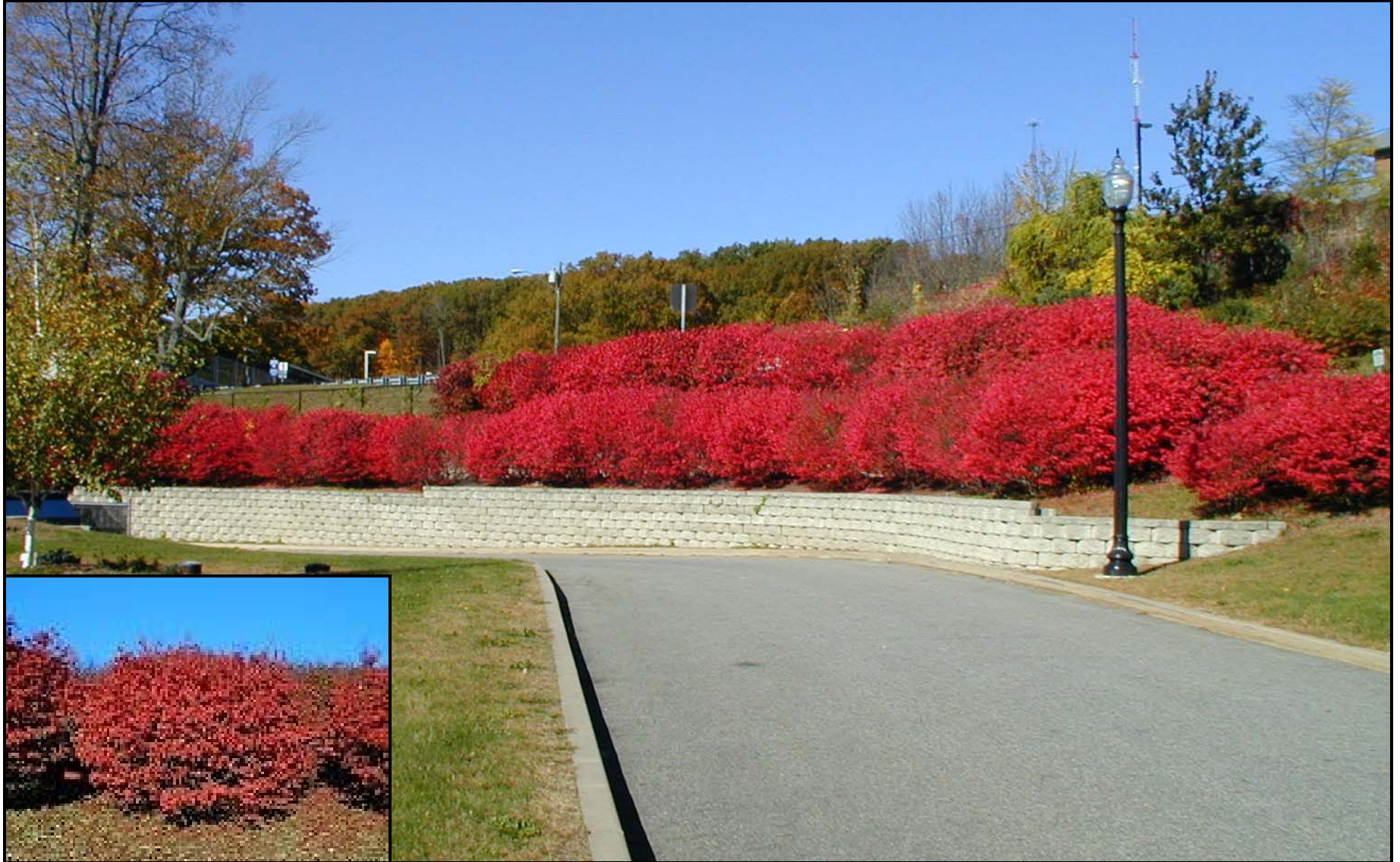
Autumn olive traits:

- **Flowers:** white to pale yellow
- **Leaves:** oval to lanceolate; glabrescent top surface
- **Fruits:** red, succulent with metallic flecks

Russian olive traits:

- **Flowers:** yellow
- **Leaves:** narrow/lanceolate; hairy on all surfaces
- **Fruits:** white to red, mealy with silver scales

Euonymus alatus – Winged Euonymus (Burning Bush)
Invasive shrub



A planting of winged euonymus in Storrs, CT. Photos: Donna Ellis, UConn

Euonymus alatus – Winged Euonymus (Burning Bush) Invasive shrub



Foliage changes to a bright scarlet in the fall.
Photo: Les Merhoffs, IPANE.

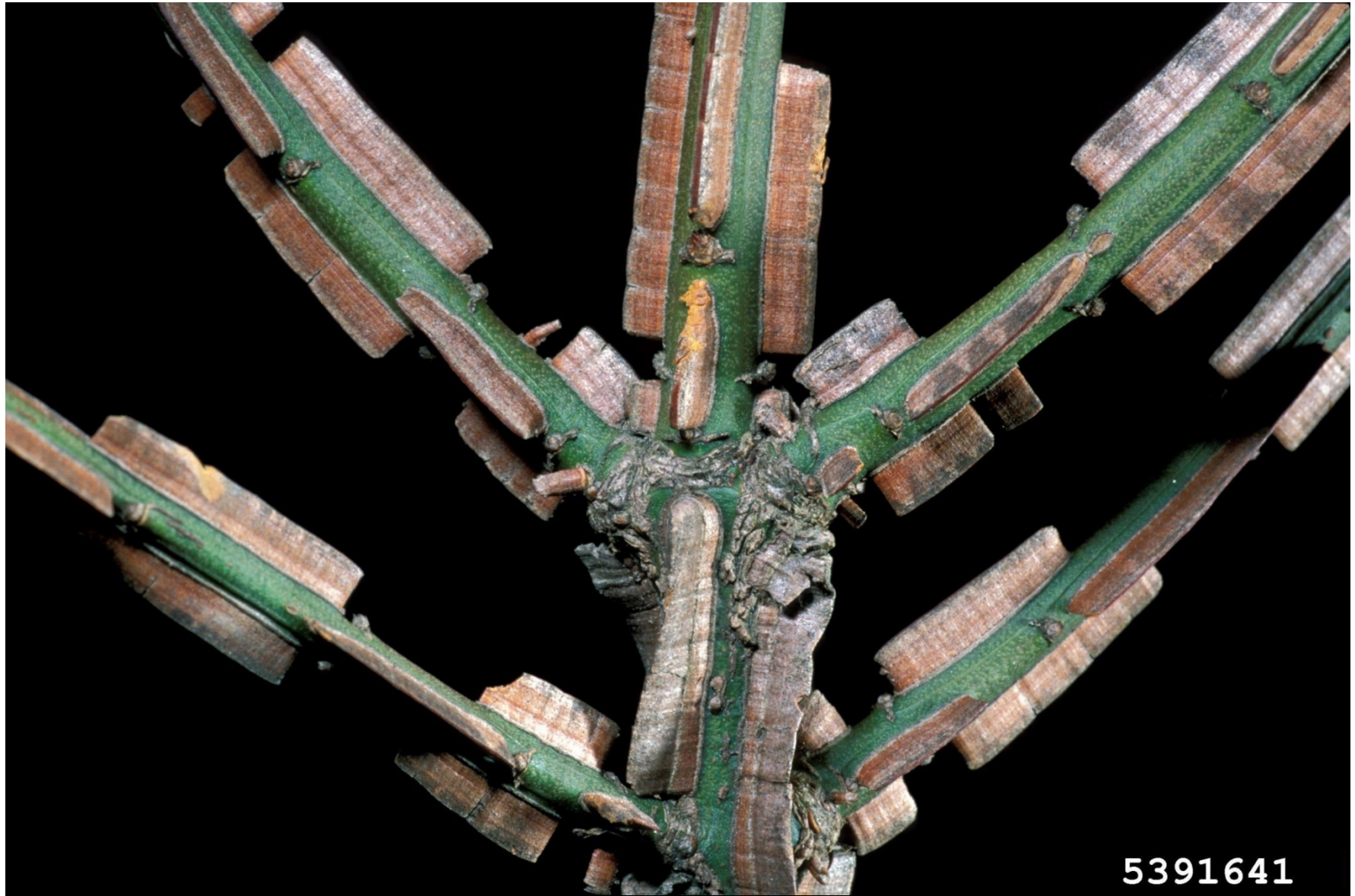


Red-purple ovary walls split open to reveal seeds encased in a red-orange fruit.
Photo: Nicole Gabelman, UConn



Winged euonymus is a problematic invader in forest understories.
Photo: Les Merhoffs, IPANE

Euonymus alatus – Winged Euonymus (Burning Bush)
Invasive shrub



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Close-up showing corky protrusions along stems. Photo: Barry Rice, sarracenia.com, Bugwood.org

Frangula alnus – Glossy Buckthorn
Invasive shrub



Rhamnus cathartica – Common Buckthorn
Invasive shrub



Left: Note fruits and leaf venation. Right: Branches end in a single thorn. Photos: Les Mehrhoff, IPANE

Rhamnus cathartica – Common Buckthorn

Invasive shrub



Common buckthorn foliage. Photo: Donna Ellis, UConn



Invasion of common buckthorn.
Photo: John M. Randall, The Nature Conservancy, Bugwood.org

Frangula alnus –
Glossy Buckthorn



*Glossy buckthorn flowers. Top photo: Les Mehrhoff, IPANE.
Bottom photo: Rob Routledge, Sault College, Bugwood.org*

Rhamnus cathartica –
Common Buckthorn



*Common buckthorn flowers. Top photo: Les Mehrhoff, IPANE.
Bottom photo: Rob Routledge, Sault College, Bugwood.org*

Comparison

Frangula alnus vs. *Rhamnus cathartica* Glossy Buckthorn vs. Common Buckthorn

Glossy buckthorn traits:

- **Leaves:** glossy; oblong to elliptical; alternate
- **Leaf venation:** five or more pairs of veins that run parallel from the midrib; smooth or wavy along margins
- **Flowers:** greenish-yellow with five petals
- **Fruits:** ripen from red to purple-black fruit with two to three seeds
- **Twigs:** thornless

Common buckthorn traits:

- **Leaves:** dull green; oblong; opposite
- **Leaf venation:** three to four pairs of veins which curve toward the tip from the mid-vein; tiny teeth along margins
- **Flowers:** greenish-yellow with four petals
- **Fruits:** black fruit with three to four seeds
- **Twigs:** spike-like thorns at the tips

Ligustrum spp. – Privets

Potentially invasive shrubs



L. obtusifolium infestation. Photo: Les Mehrhoff, IPANE



L. vulgare (left) and *L. obtusifolium* (right) flowers are yellow to white.
Left photo: Nava Tabak, IPANE, Bugwood.org. Right photo: Les Mehrhoff, IPANE



L. vulgare has opposite leaves.
Photo: Les Mehrhoff, IPANE



L. obtusifolium (left) and *L. ovalifolium* (right) fruits are dark blue to black.
Photos: Les Mehrhoff, IPANE

Lonicera morrowii – Morrow's Honeysuckle

Invasive shrub



Top: *L. morrowii* flowers. Bottom: *L. morrowii* fruits.
Top photo: Les Mehrhoff, IPANE. Bottom photo: Donna Ellis, UConn



L. morrowii shrub. Photo: Nicole Gabelman, UConn

Lonicera tatarica – Tatarian Honeysuckle
Potentially invasive shrub



Top: *L. tatarica* flowers. Photos: Les Mehrhoff, IPANE.
Bottom: *L. tatarica* fruits. Photo: Chris Evans, River to River CWMA, Bugwood.org

Comparison
Lonicera spp.



Photo: Les Mehrhoff, IPANE

Rubus phoenicolasius – Wineberry Invasive shrub



Top-left: Arching wineberry cane. Top-right: Trifoliate leaves. Bottom-right: Berry-like fruits reveal yellow cone when removed. Bottom-left: Canes are covered in red hairs and spines. Photos: Les Mehrhoff, IPANE