

Tree Identification for Beginners:

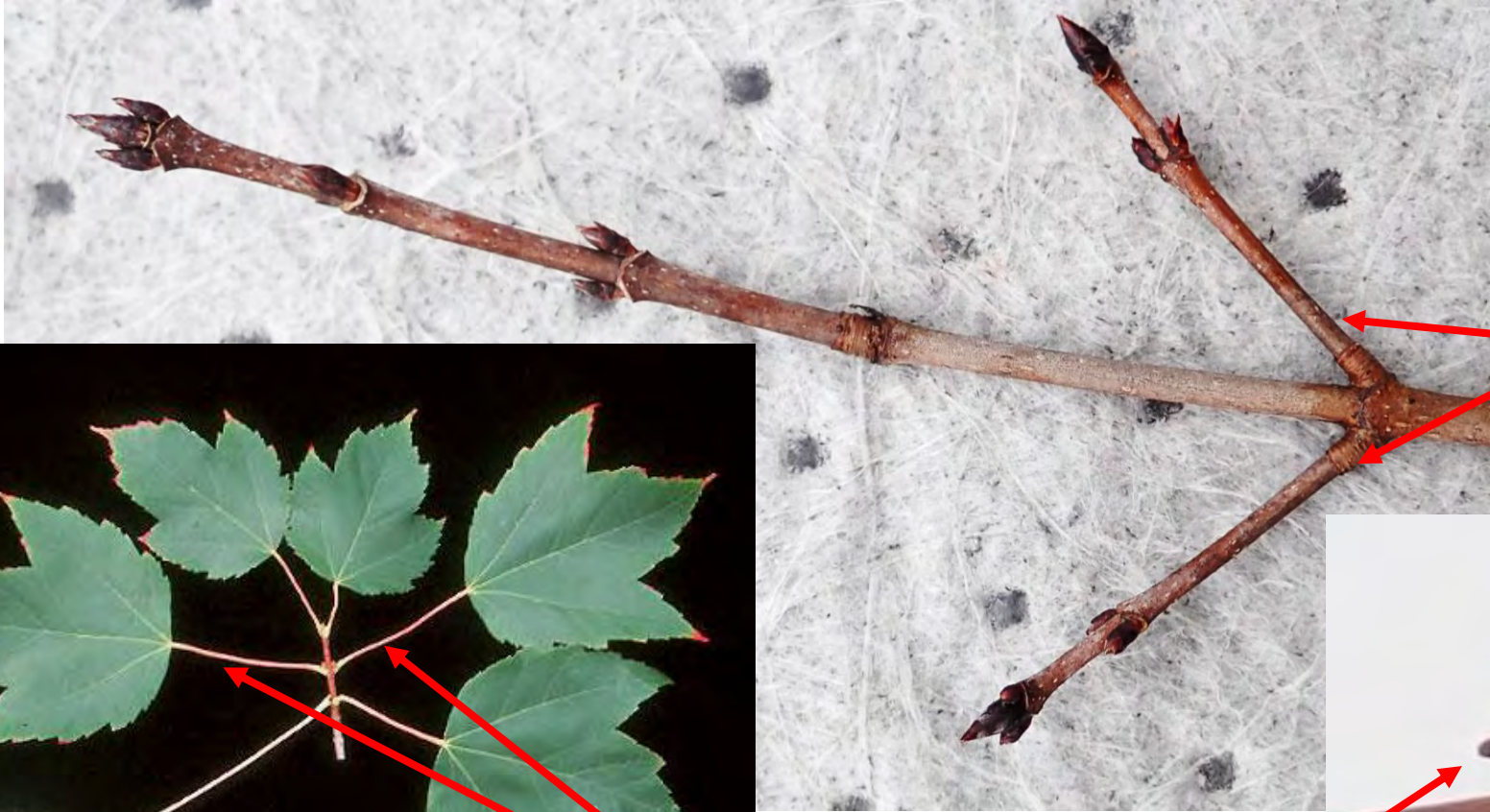


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Tree Identification for Beginners: Deciduous, Opposite Leaf



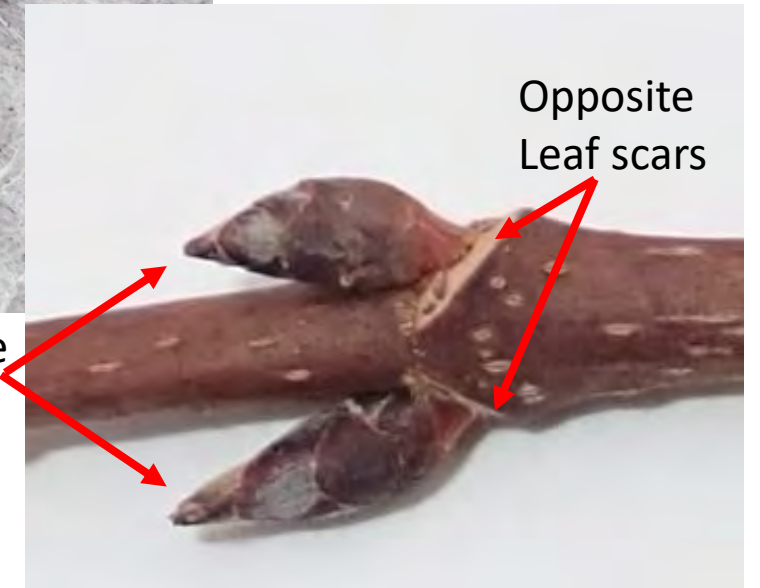
Opposite
Branching



Underside

Landscapeplants.oregonstate.edu

Opposite leaf
arrangement



Opposite
Leaf scars

Opposite
Buds

Tree Identification for Beginners: Deciduous, Opposite Leaf

Acronym = **M A D Cap Horse**

Maple

Ash

Dogwood

Caprifoliaceae (shrubs like honeysuckle, elderberry, viburnum)

Horsechestnut (other areas may substitute "Buck" for Buckeyes)

Tree Identification for Beginners: Deciduous, Opposite Leaf

1. Trees with stout twigs:

White Ash*.

- Black Ash, Green Ash, Horsechestnut, Buckeyes.

2. Trees with slender twigs:

Flowering Dogwood*, Sugar Maple*, Red Maple*.

- Norway Maple, Boxelder.

Tree Identification for Beginners: Deciduous, Opposite Leaf

White Ash

(*Fraxinus americana*)

- Large tree up to 100' tall.
- Prefers deep, rich, well-drained soils.
- Important for timber, wildlife.
- It is often associated as a minor species in other tree associations.
- Emerald Ash Borer likely eliminates all ash unless resistant individuals are found.



<https://northernforestatlas.org/atlas-images/nfa-bryos-fraxinus-americana-00711/>



Tree Identification for Beginners: Deciduous, Opposite Leaf

White Ash

(*Fraxinus americana*)

- ★ Stout twigs.
- Dark brown buds, end buds not gummy.
- ★ Leaf scars notched around bud.
- Narrow seeds in clusters, often persistent.



Tree Identification for Beginners: Deciduous, Opposite Leaf

White Ash (*Fraxinus americana*)

- Young bark grayish, may develop tight square scales to shallow furrows and ridges broken into small blocks.
- ★ Mature bark gray to brownish gray, broken into intersecting ridges with v-shaped furrows.
- Old trees develop flat-topped ridges.



Intersecting ridges with
v-shaped furrows



Tree Identification for Beginners: Deciduous, Opposite Leaf

Horse Chestnut

(*Aesculus hippocastanum*)

- Large non-native (originally from Europe) tree up to 75' tall.
- Widely planted for shade and ornamental value (showy white flowers).
- Related New World trees are called "Buckeye"



Naturewalk.yale.edu/trees/sapindaceae/aesculus-hippocastanum

Tree Identification for Beginners: Deciduous, Opposite

Horse Chestnut (*Aesculus hippocastanum*)

- ★ Stout twigs.
- ★ Dark brown, gummy end buds.
- ★ Bundle scars in curved line, not groups (Buckeyes).
- ★ Chestnut-like fruit with strong, thorny husks.



https://en.wikipedia.org/wiki/Conkers#/media/File:Aesculus_hippocastanum_fruit.jpg

Tree Identification for Beginners: Deciduous, Opposite

Horse Chestnut (*Aesculus hippocastanum*)

- Young bark dull brown
- Mature bark becomes roughened with shallow furrows and low ridges covered with thin scaly plates



https://commons.wikimedia.org/wiki/File:Aesculus_Hippocastanum_bark_-_2.jpg

Tree Identification for Beginners: Deciduous, Opposite Leaf

Flowering Dogwood

(Cornus florida)

- Small tree typically 10'-20' tall.
- Prefers rich, well-drained soils. Often invades old fields and roadsides when mowing stops.
- Important wildlife and ornamental uses.
- Shade-tolerant, it will grow as lower canopy tree but Anthracnose disease has killed many that are not in full sun.

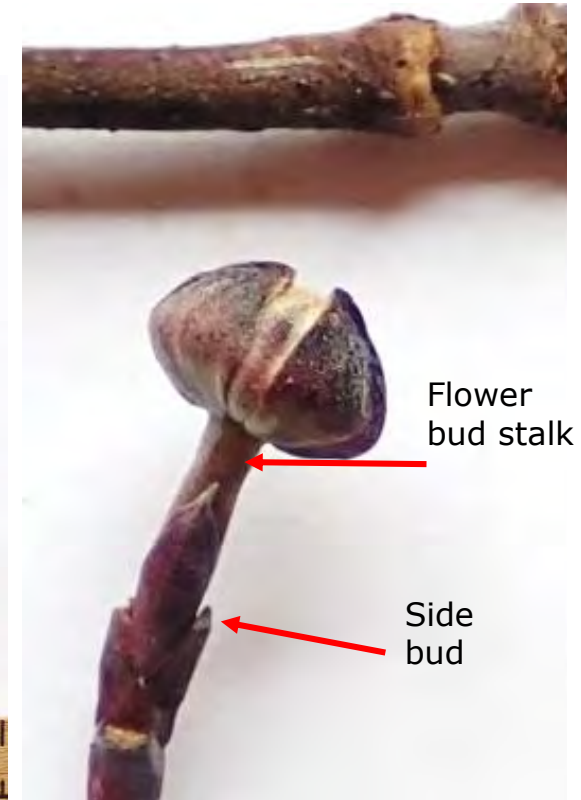
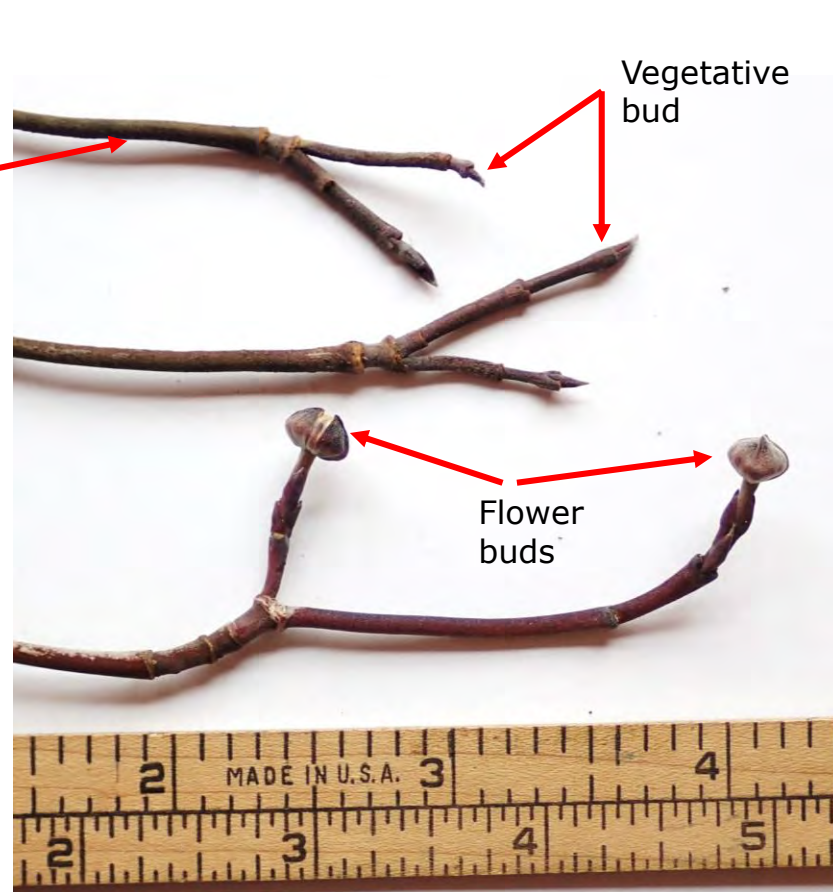


Tree Identification for Beginners: Deciduous, Opposite Leaf

Flowering Dogwood

(*Cornus florida*)

- ★ Slender twigs.
- ★ Separate vegetative and flower buds.
- ★ Flower buds arise from short stalk.
- Side buds hidden or barely visible, pressed to twig.



Tree Identification for Beginners: Deciduous, Opposite Leaf

Flowering Dogwood

(*Cornus florida*)

- ★ Bark dark-brown or blackish and broken into squarish blocks ('alligator hide' style).



'Alligator-hide' bark

Tree Identification for Beginners: Deciduous, Opposite Leaf

Sugar Maple

(Acer saccharum)

- Large tree 60' to 80' tall.
- Prefers deep, rich, well-drained soils, but grows elsewhere.
- Important for timber, wildlife, ornamental, syrup.
- Shade-tolerant, it replaces other species like oaks in climax forest stages.

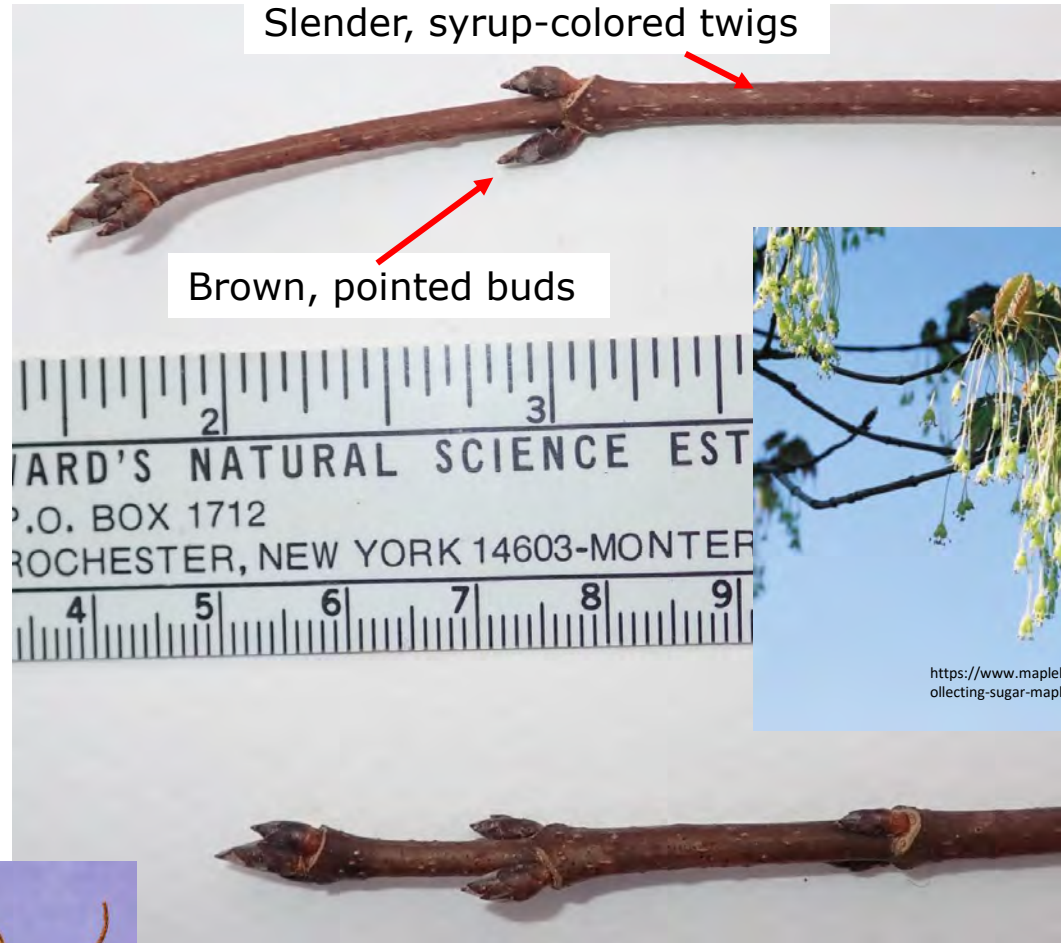


Tree Identification for Beginners: Deciduous, Opposite Leaf

Sugar Maple

(*Acer saccharum*)

- ★ Slender twigs, smooth, syrup colored with pale lenticels (pores).
- ★ Buds brown, narrow, sharp-pointed.
- Terminal bud 1/4"; lateral buds smaller and pressed to twig.
- Leaves and flowers from same bud; flowers appear after leaf-out.
- Fruit 2-winged (keys or double samara)



Tree Identification for Beginners: Deciduous, Opposite Leaf

Sugar Maple

(*Acer saccharum*)

- Young bark gray or gray/brown becoming finely cracked like old paint.
- ★ Mature bark forms vertical strips that separate from trunk on one side only.
- Old bark – vertical strips fall away leaving random cracked bark strips.



Vertical strips separated 1-side only

Tree Identification for Beginners: Deciduous, Opposite Leaf

Red Maple

(*Acer rubrum*)

- Medium tree 40' to 70' tall.
- Grows in a variety of habitats but outcompetes other species in wet areas.
- Primary uses for low-value wood products and as highly-valued ornamental.
- Shade-tolerant, it replaces other species like oaks in climax forest stages.

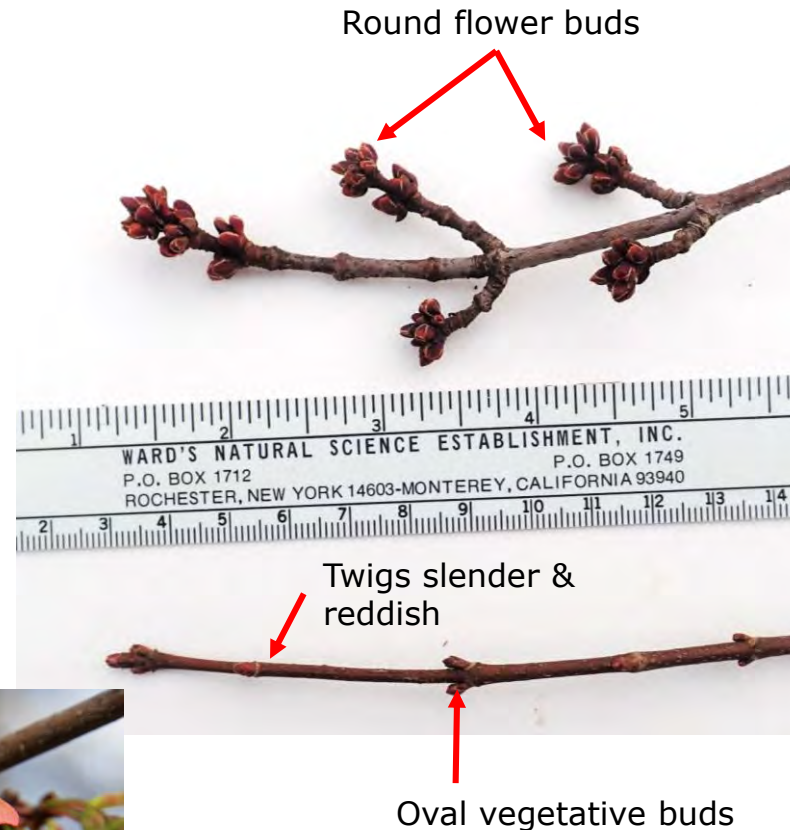


Tree Identification for Beginners: Deciduous, Opposite Leaf

Red Maple

(*Acer rubrum*)

- ★ Twigs slender and reddish with small pale lenticels (pores).
- ★ 2 types of reddish buds: oval (leaf) or rounded (flower).
- Flowers open before leaves.
- Fruit 2-winged ('keys' or 'double samara')



Tree Identification for Beginners: Deciduous, Opposite Leaf

Red Maple

(*Acer rubrum*)

- Young trees with smooth, gray bark.
- ★ Mature trees with darker gray, shallowly fissured bark.
- ★ Old trees with long, scaly or shaggy ridges that scrape off easily, revealing more reddish bark underneath.



Tree Identification for Beginners: Common NE Evergreens

Norway Maple

(Acer platanoides)

- Medium tree 40' to 60' tall.
- Native of Europe. Grows rapidly and tolerant of air pollution.
- Extensively planted as street and shade tree. Has escaped to become invasive.
- Leaves have dull fall color and stay on tree later than native maples.



Tree Identification for Beginners: Common NE Evergreens

Norway Maple (*Acer platanoides*)

- ★ Buds broad, large 3/16", greenish or reddish and blunt.
- ★ Edges of opposing leaf scars meet.
- Fruit 2-winged (keys or double samara) with divergent wings which are about 2" in length.



Paul Wray, Iowa State University, Bugwood.org

Tree Identification for Beginners: Common NE Evergreens

Norway Maple

(*Acer platanoides*)

- Young bark smooth, green, grey or brownish, and developing vertical lighter-colored cracks.
- ★ Mature bark brown to gray with intersecting ridges forming diamond-shaped furrows.



Tree Identification for Beginners: Common NE Evergreens



Tree Identification for Beginners: Common NE Evergreens

1: Trees with needle-like leaves grouped together in bundles.



2: Trees with needle-like leaves attached individually to their twigs.



3: Trees with scale-like leaves.



Tree Identification for Beginners: Common NE Evergreens

Group 1: Trees with needle-like leaves grouped together in bundles (pines).

NE Native Species Examples:

Eastern White Pine*,

- Red Pine, Pitch Pine, Jack Pin

Non-native Species Examples:

Scots Pine*,

- Austrian Pine, Loblolly Pine,

Poderosa Pine



Tree Identification for Beginners: Common NE Evergreens

Eastern White Pine

(Pinus strobus)

- Tall and majestic.
- Important for timber and wildlife.



Tree Identification for Beginners: Common NE Evergreens

Eastern White Pine (*Pinus strobus*)

- ★ Bundles of 5 thin, flexible needles 4"-5" long
- Mature cones 4"-8" and slightly curved

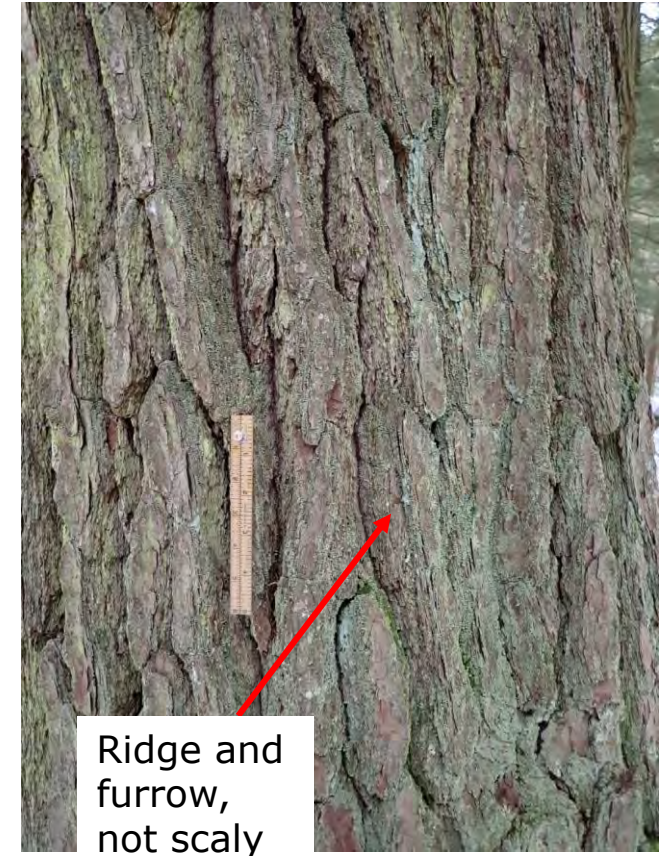


Tree Identification for Beginners: Common NE Evergreens

Eastern White Pine

(*Pinus strobus*)

- Young bark grey to grey-green and smooth; becomes cracked with age.
- ★ Older tree has irregular and furrowed bark (not scaly like many other pines).



Tree Identification for Beginners: Common NE Evergreens

Red Pine

(*Pinus resinosa*)

- Tall, northern pine.
- Grows well on dry, sandy sites.
- Planted for reforestation (log homes and pulp), ornamental;



Tree Identification for Beginners: Common NE Evergreens

Red Pine

(*Pinus resinosa*)

- ★ Bundles of 2 stout needles 3"-8" long.
- Mature cones 1.5"-2.5" with thornless scales.



Long,
2-needle
bundles

Tree Identification for Beginners: Common NE Evergreens

Red Pine

(*Pinus resinosa*)

- Young bark grey reddish-brown with irregular, flaky scales.
- ★ Older bark mottled gray and reddish.

Bark
mottled grey
and red



Tree Identification for Beginners: Common NE Evergreens

Scots Pine

(Pinus sylvestris)

- Non-native (Europe) with different growth forms depending on seed source.
- Commonly planted for Christmas trees.



Tree Identification for Beginners: Common NE Evergreens

Scots Pine

(*Pinus sylvestris*)

- ★ Bundles of 2 stout, twisted needles 1.5"-3" long.
- Mature cones egg-shaped, 1.25"-2.5" with sharp point.

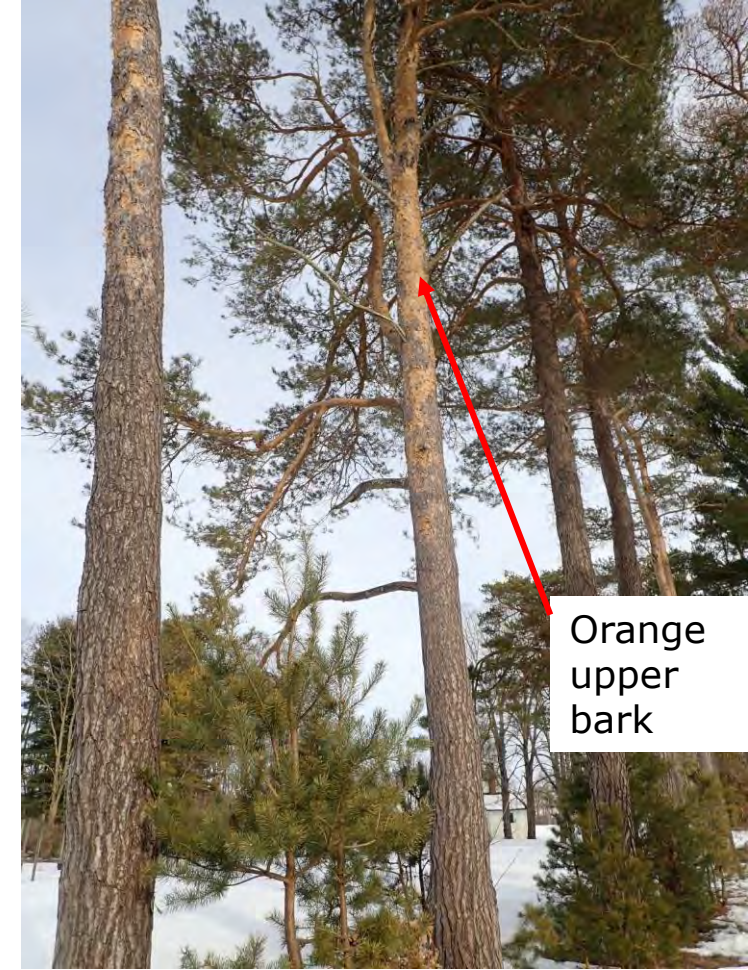


Tree Identification for Beginners: Common NE Evergreens

Scots Pine

(*Pinus sylvestris*)

- Lower bark gray-brown and plate-like.
- ★ Higher trunk and branches shaggy, orange-colored.



Tree Identification for Beginners: Common NE Evergreens

2: Trees with needle-like leaves attached individually to their twigs.

Hemlock:

Eastern Hemlock*

- Carolina Hemlock

Spruce:

Norway Spruce*

- White Spruce, Red Spruce

Firs:

Balsam Fir*

- Fraser Fir, Grand Fir, Noble Fir



Tree Identification for Beginners: Common NE Evergreens

Eastern Hemlock

(*Tsuga canadensis*)

- A most beautiful native tree.
- Mixes with hardwoods and may dominate on north and east slopes.
- Provides alternate habitats for terrestrial and aquatic organisms.
- Threatened by invasive Hemlock wooly adelgid.

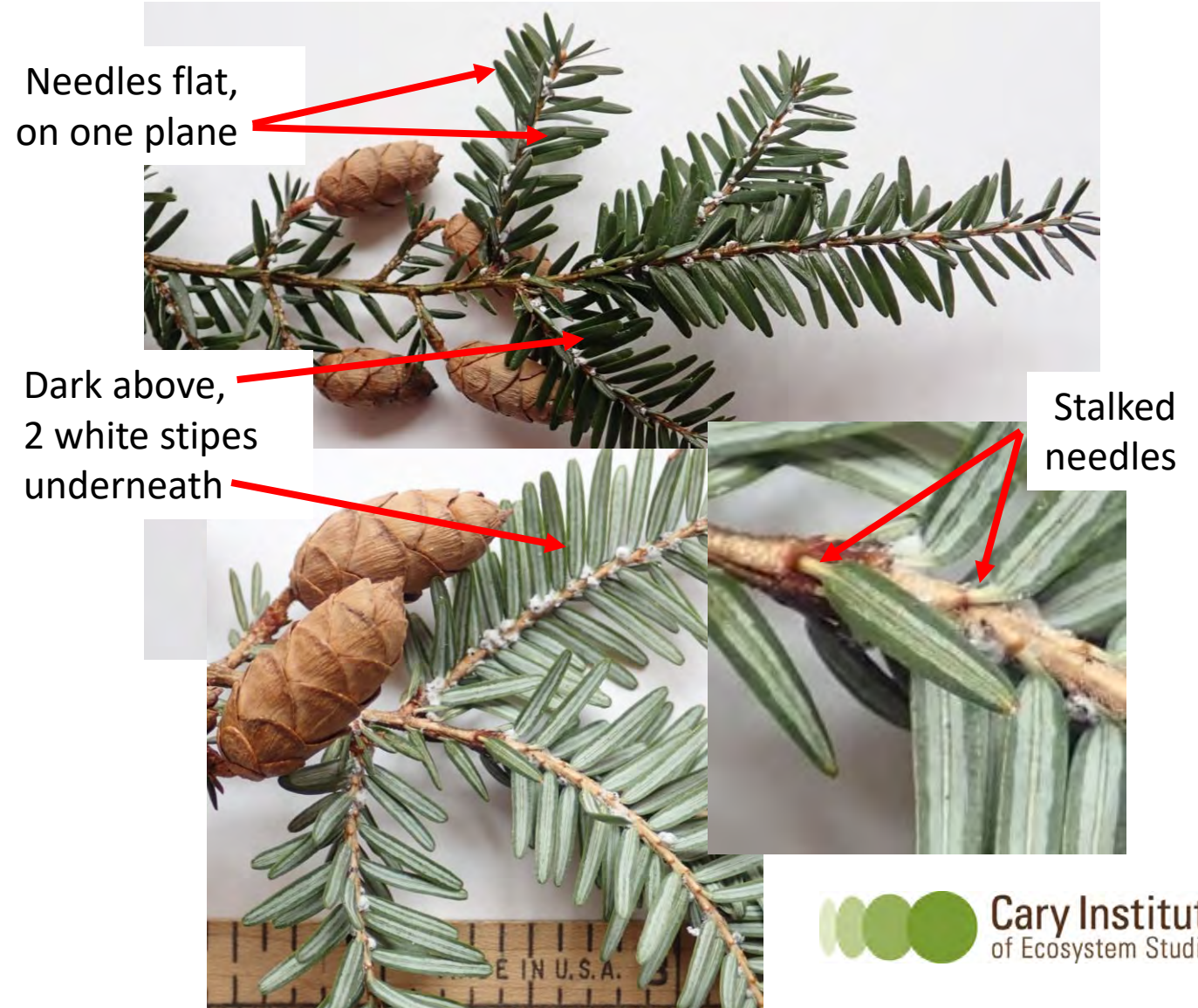


Tree Identification for Beginners: Common NE Evergreens

Eastern Hemlock

(*Tsuga canadensis*)

- ★ needles 5/16" to 9/16", flat, attached by short slender stalks, arranged on one plane on both sides of the twig.
- ★ White stripes on needle bottoms on either side of the main rib.
- Cones 5/8" - 1", hanging down below branches.

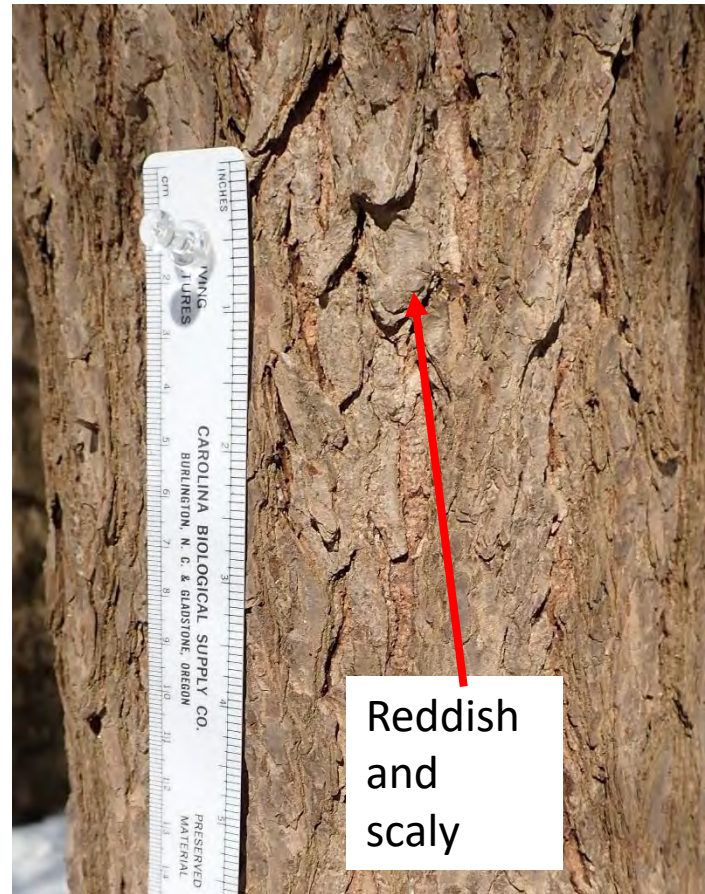


Tree Identification for Beginners: Common NE Evergreens

Eastern Hemlock

(*Tsuga canadensis*)

- ★ Younger bark reddish brown to reddish grey and broken into thin irregular scales. Warty lenticels may be visible in between the scaly bark.
- ★ Bark of older tree becomes dark, ridged and furrowed.



Tree Identification for Beginners: Common NE Evergreens

Norway Spruce

(*Picea abies*)

- Originally from Europe.
- One of the most widely planted spruce for Christmas trees, reforestation and timber production in the NE (deer resistant).
- ★ Branches of mature trees may droop down and back up; small branches pendulous.



Pendulous
branches



Tree Identification for Beginners: Common NE Evergreens

Norway Spruce

(*Picea abies*)

- ★ Needles sharp and stiff, ½"-1" long and attached around the twig (whorled).
- ★ Needles grow from tiny peg that remains on twig when the needle falls.
- Mature cones are 4-7" long, cylindrical and hang down below the branches.



Needles sharp, stiff & whorled

Persistent peg



Tree Identification for Beginners: Common NE Evergreens

Norway Spruce

(*Picea abies*)

- Young bark reddish brown, finely shredded or flaked.
- ★ Bark of older tree reddish or purplish and flaked.



Tree Identification for Beginners: Common NE Evergreens

Balsam Fir

(*Abies balsamea*)

- Very abundant at elevations of NY's Catskill and Adirondack mountains; Uncommon in SE NY except where planted, mostly for Christmas trees.
- Important food and cover for birds and mammals in winter.
- Fragrant foliage associated with Christmas decorations and time spent in northern forests.

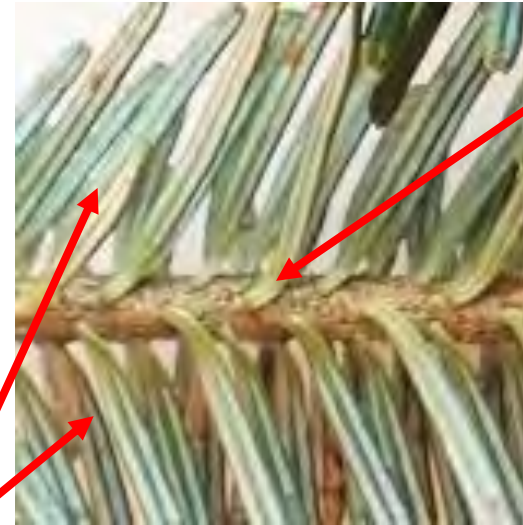


www.shutterstock.com · 581652550

Tree Identification for Beginners: Common NE Evergreens

Balsam Fir (*Abies balsamea*)

- ★ Needles soft, $\frac{3}{4}$ " long and flat, attached directly to the branch without stalk or peg.
- ★ Positioned parallel on both sides of young twigs, but bend upward on older branches, giving appearance of being on the upper side.
- Tops dark green while bottom have white stripes on sides of the main rib.
- ★ Mature cones are 2"-3" pointing upward. Older cones lose their scales leaving candle-like central stalk on the branch.



Soft, attached without stem or peg

Parallel needles;
Bend up on older
branches



Upright cones

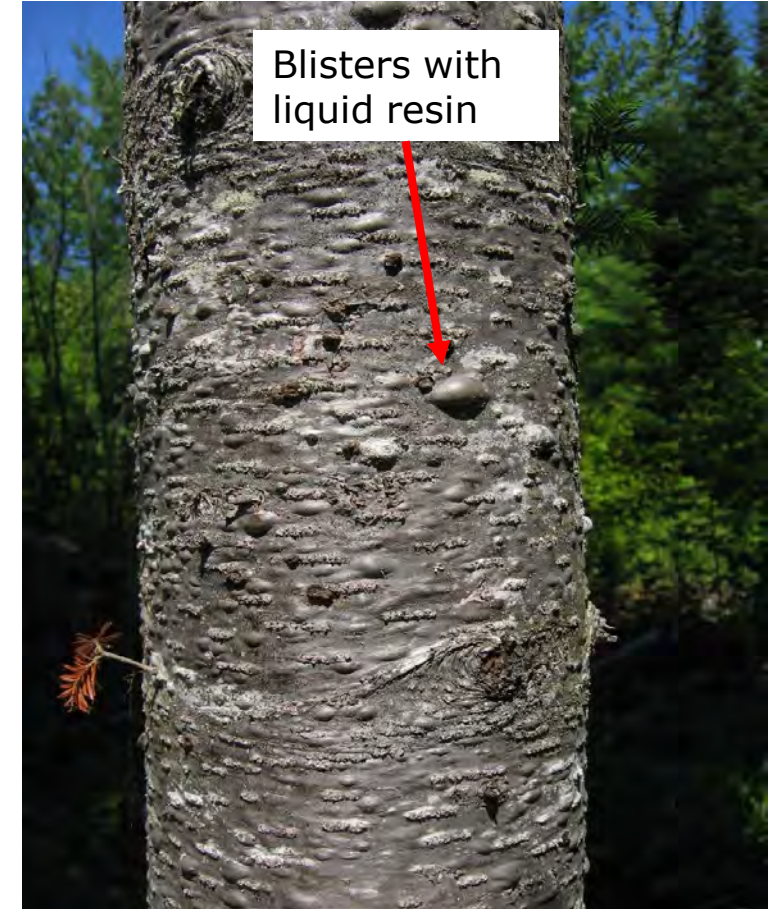


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Wikimedia Commons

Tree Identification for Beginners: Common NE Evergreens

Balsam Fir (*Abies balsamea*)

- Bark is grey-brown and smooth.
- ★ Older bark shows raised blisters which contain sticky, fragrant liquid resin.



By Keith Kanoti, Maine Forest Service, United States - This image is Image Number 5349060 at Forestry Images, a source for forest health, natural resources and silviculture images operated by The Bugwood Network at the University of Georgia and the USDA Forest Service., CC BY 3.0 us, <https://commons.wikimedia.org/w/index.php?curid=8373260>

Tree Identification for Beginners: Common NE Evergreens

3: Species with scale-like leaves.

Eastern Red Cedar*

- Atlantic White Cedar, Northern White Cedar, Common Juniper



Tree Identification for Beginners: Common NE Evergreens

Eastern Red Cedar

(Juniperus virginiana)

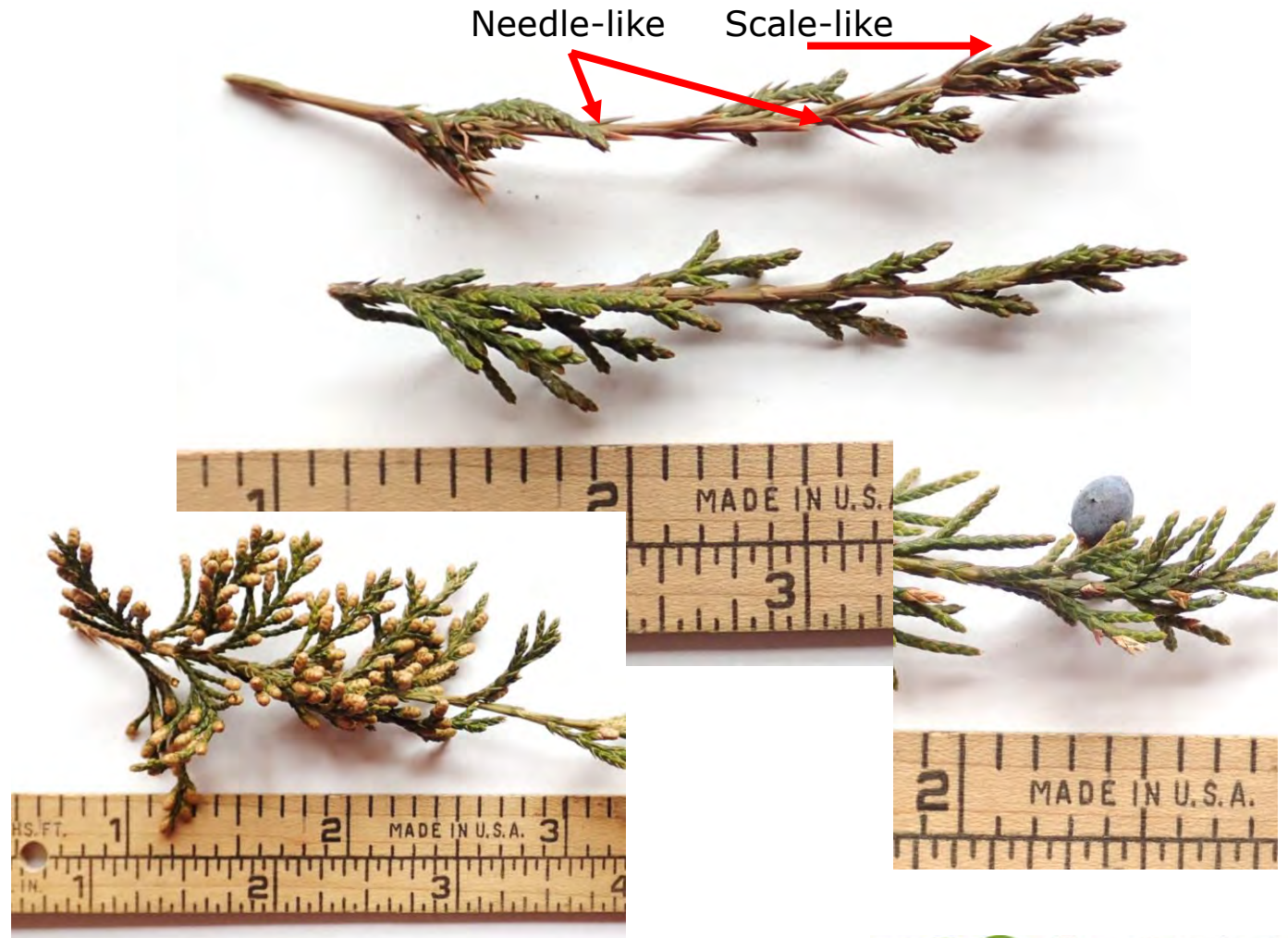
- Small to medium-sized tree (to 40').
- Common in rocky abandoned fields and old pastures (eroded sites), particularly on limestone-derived soils.
- Important as food and cover for wildlife. Seeds widely-used by birds in winter.



Tree Identification for Beginners: Common NE Evergreens

Eastern Red Cedar (*Juniperus virginiana*)

- ★ Has both scale like and needle-like leaves.
- Leaves 1/16" to 1/2" long and paired around 4-sided twigs.
- Fruits 1/4", round, whitish to bluish "berry" (cone).



Tree Identification for Beginners: Common NE Evergreens

Eastern Red Cedar (*Juniperus virginiana*)

- ★ Bark reddish brown to gray with narrow, vertical strips that peel away from trunk.
- Trunk is often not round and may be fluted.
- Heartwood reddish and aromatic (cedar closet).



Peeling
vertical
strips

Tree Identification for Beginners: Common NE Evergreens

Questions?

