

## LAB 9 – TONKAWA

<b>Family</b>	<b>Genus</b>	<b>Species</b>	<b>Common Name</b>	<b>Order</b>	<b>Page</b>
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### American black elderberry Caprifoliaceae *Sambucus nigra* ssp. *canadensis*

**Leaf:** Opposite, pinnately compound, 6 to 11 inches long, with 5 to 11 elliptical, serrate leaflets, acuminate tips, bottom leaflets are often 3-lobed, dark green above and much paler below.

**Flower:** Monoecious; small, white, borne in dense, flat-topped clusters, up to 8 inches across, appearing in summer.

**Fruit:** Small, berrylike drupe, purple-black, and very juicy, up to 1/4 inch in diameter, borne in flat-topped clusters, maturing in late summer.

**Twig:** Stout, silvery- to yellow-gray with obvious, warty lenticles, large white pith; buds are very small, red-brown and pointed, terminal buds are generally lacking.

**Bark:** Smooth and brown becoming shallowly furrowed and rough with age.

**Form:** A large shrub or small tree often with multiple stems that are spreading or arching reaching up to 12 feet tall. The trunk is usually short.



**Notes:**

### chinkapin Fagaceae *Castanea pumila*

**Leaf:** Alternate, simple, oblong to lanceolate, 3 to 6 inches long, pinnately veined, coarsely toothed margin, green above and much lighter and fuzzy below.

**Flower:** Monoecious; male flowers are small and pale yellow, borne on semi-upright catkins 4 to 6 inches long; female flowers are borne on the base of some of the same catkins, 1/8 inch long, appear in late spring.

**Fruit:** Small, bur covered with sharp spines, 3/4 to 1 1/2 inches in diameter, often the burs occur in clusters on stems; each bur contains a single, shiny chestnut brown, ovoid nut. Nuts are edible and quite sweet when mature in the fall.

**Twig:** Slender to moderate, reddish brown, often with gray fuzz; buds are also gray-brown and fuzzy, covered with 2 to 3 visible bud scales.

**Bark:** Light, reddish brown in color, shallowly furrowed with scaly plates on large stems.

**Form:** A large shrub or small tree up to 25 feet tall that can form dense thickets when growing in bright sunshine.



**Notes:**

### common buttonbush Rubiaceae *Cephalanthus occidentalis*

**Leaf:** Opposite or whorled, elliptical, pointed tip, entire margins, 3 to 5 inches long, shiny dark green above.

**Flower:** Small, white tubular flowers occur in a dense round (1 inch across) cluster at the end of a slender 1 to 2 inch stalk, appear mid-summer.

**Fruit:** Round cluster of nutlets (each 1/4" long), dark brown, mature late summer to fall.

**Twig:** Slender to moderately stout, dark reddish brown, speckled with lighter, elongated lenticels; tips of twigs typically die back; lateral buds small and embedded in bark, leaf scar "D"-shaped or nearly round with a single "U"-shaped bundle scar.

**Bark:** Thin and smooth on young stems, becoming fissured and scaly.

**Form:** Upright, multiple branching shrub, may reach 25 feet in height.



**Notes:**

### hehuckleberry lyonia Ericaceae *Lyonia ligustrina*

**Leaf:** Alternate, deciduous, simple, oblong to elliptical, pointed tip, serrated to entire margins, 1 1/2 to 3 inches long, dark green above and maybe a bit hairy, lighter green and often hairy below.

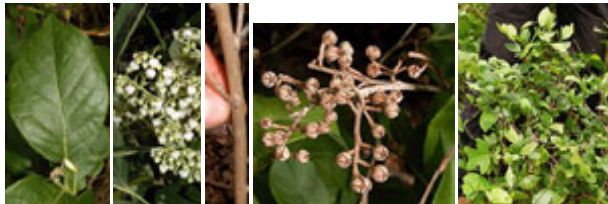
**Flower:** Small (1/4 inch), white, broadly urn-shaped, hang in large clusters from leaf axils of last years growth, appearing in early summer.

**Fruit:** Dry reddish brown, 5-valved capsules, 1/4 inch long; mature in late summer, persistent.

**Twig:** Slender reddish brown, a bit angled particularly at the nodes, initially a bit fuzzy but later glabrous, leaf scar with 1 bundle scar.

**Bark:** Brown to reddish brown with long horizontal splits developing.

**Form:** A dense shrub reaching up to 6 feet tall; spreads from heavily branching rhizomes.



**Notes:**

**red chokeberry** Rosaceae *Aronia arbutifolia*

**Leaf:** Alternate, simple, elliptical, 2 to 4 inches long, finely serrated margins, shiny dark green above, midrib has stiff, raised dark glands on upper surface (may need a hand lens), much paler and fuzzy below, orange-red fall color.

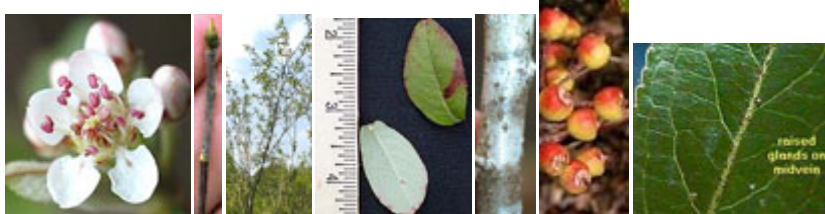
**Flower:** White, 5 petals, 1/2 inch across, dark anthers, occur in clusters at ends of twig, appearing in spring.

**Fruit:** Small pome, 1/4 inch, reddish, ripen in late summer to early fall, persistent.

**Twig:** Slender, reddish brown, generally pubescent, terminal buds long, 1/3 to 1/2 inch (resembles serviceberry), leaf scars narrow.

**Bark:** Reddish brown, smooth, lenticled, developing diamond-shaped splits.

**Form:** Upright shrub to 15 feet, often multi-stemmed.



**Notes:**

**southern bayberry** Myricaceae *Morella caroliniensis*

**Leaf:** Alternate, evergreen, simple, fragrant, spatulate in shape with a tapered base, 2-4 inches long, 0.5 to 1.5 inch wide, entire with an occasional tooth, revolute, dark green and waxy-shiny above, pale green below, brown resin dots on lower surface.

**Flower:** Dioecious; both male and female flowers are small (3/4 inch), appearing as catkins in the leaf axils in spring after leaves.

**Fruit:** Round, waxy bluish-white drupes (1/4 inch in diameter), appearing in crowded clusters.

**Twig:** Slender and brittle, glabrous, becoming smooth and gray-brown with age.

**Bark:** Thin and smooth, gray-brown.

**Form:** Small tree or large shrub, often multi-stemmed and growing in clusters, generally rounded or irregular in shape, with a crooked or twisting bole.

\*Modified from VT Fact Sheet for *Morella cerifera* using info from Vines' Trees of East Texas ISBN: 0292780176



**Notes:**

**hazel alder** Betulaceae *Alnus serrulata*

**Leaf:** Alternate, simple, obovate to elliptical, 2 to 4 inches long, pinnately-veined, finely serrated wavy margin, dark green above, paler and finely hairy beneath.

**Flower:** Monoecious; both males and females preformed; males green brown catkins, 1 to 1 1/2 inches; female 1/2 inch long, reddish, opening in early spring.

**Fruit:** Woody, cone like catkin, 1/2 inch long, dark brown with each scale enclosing a tiny, winged seed. Fruit ripens in fall and is very persistent.

**Twig:** Reddish brown with gray fuzz, 3-angled pith; buds are stalked, plump, covered in 2 to 3 red-purple scales, resemble a match head.

**Bark:** Thin, gray to brown and smooth, trunk fluted.

**Form:** A multi-stemmed small tree or large shrub with several twisted stems reaching up to 15 feet tall.



**Notes:**

**redbay** Lauraceae *Persea borbonia*

**Leaf:** Alternate, simple, entire margins, lance-shaped, evergreen, 3 to 7 inches long, 1 to 2 inches wide, spicy odor when crushed, dark green above, pale green below.

**Flower:** Small, light yellow-green occurring in small, clusters in leaf axils.

**Fruit:** Dark blue, round drupe, 1/3 to 1/2 inch, mature in early fall.

**Twig:** Moderately stout, green with brownish hairs, angled or ridged, buds are short and covered in rusty colored hairs.

**Bark:** Reddish brown, irregular furrows with flat-topped ridges, quite thick.

**Form:** Large shrub or small tree, 30 to 40 feet tall.



**Notes:**

### American beech *Fagaceae Fagus grandifolia*

**Leaf:** Alternate, simple, elliptical to oblong-ovate, 2 1/2 to 5 1/2 inches long, pinnately-veined, 11-14 pairs of veins, with each vein ending in a sharp distinct tooth, shiny green above, very waxy and smooth, slightly paler below.

**Flower:** Monoecious; male flowers borne on globose heads hanging from a slender 1 inch stalk, female flowers borne on shorter spikes, appearing just after leaves in the spring.

**Fruit:** Nuts are irregularly triangular, shiny brown and edible, found in pairs within a woody husk covered with spines, 1/2 to 3/4 inch long, maturing in the fall.

**Twig:** Very slender, zigzag, light brown in color; buds are long (3/4 inch), light brown, and slender, covered with overlapping scales (best described as "cigar-shaped"), widely divergent from the stems, almost looking like long thorns.

**Bark:** The bark is smooth, thin, and gray in color even on the largest stems. Beech bark diseases severely deforms the smooth bark.

**Form:** A medium to large tree up to 100 feet tall with a rounded crown. Often found in thickets produced by root suckering. Old trees may be surrounded by a ring of young beech.



**Notes:**

### blueberry *Ericaceae Vaccinium spp.*

**Leaf:** Alternate, simple, deciduous (may be tardily), elliptical, up to 2 inches long and usually under 1 inch wide, entire or serrated margins, shiny green above and below and somewhat thickened.

**Flower:** Small, white to pink, elongated bell-shaped, in clusters of 3-5, appearing in spring with or just before the leaves.

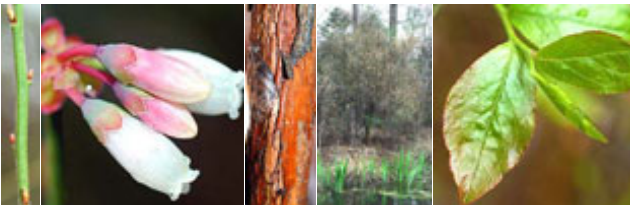
**Fruit:** Small (1/3 inch), black to blue berry ripens by mid-summer. Fruits are sweet and edible.

**Twig:** Slender, zigzag, usually green (may be reddish) and sometimes pubescent; vegetative buds are small, red and pointed; flower buds are considerably larger and round.

**Bark:** Reddish brown, very shreddy.

**Form:** An upright shrub typically with several main stems and an open crown reaching up to 9 feet tall.

\*modified from VT fact sheet for Elliott's blueberry



**Notes:**

**partridgeberry** Rubiaceae *Mitchella repens*

**Leaf:** Opposite, evergreen, oval to heart-shaped leaf, 1/2 inch across, parallel veined, dark green above with a paler yellow-green midrib, pale yellow below.

**Flower:** Monoecious; tubular, 1/2 inch long, 4 white to faint pink fuzzy petals, appearing in mid-summer.

**Fruit:** Bright red berry, oval, 1/4 to 3/8 inches across, edible and persist through the winter.

**Twig:** Very delicate and barely woody, light green to brown in color.

**Bark:**

**Form:** A creeping, delicate vine, does not climb and is often covered by fallen leaves.



**Notes:**