



CIRCLE TEN

COMMON TREE IDENTIFICATION GUIDE

Common Tree Identification Guide for Circle Ten Resident Camps

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Dedicated to all the busy Woodbadge Beavers of Circle Ten Council.

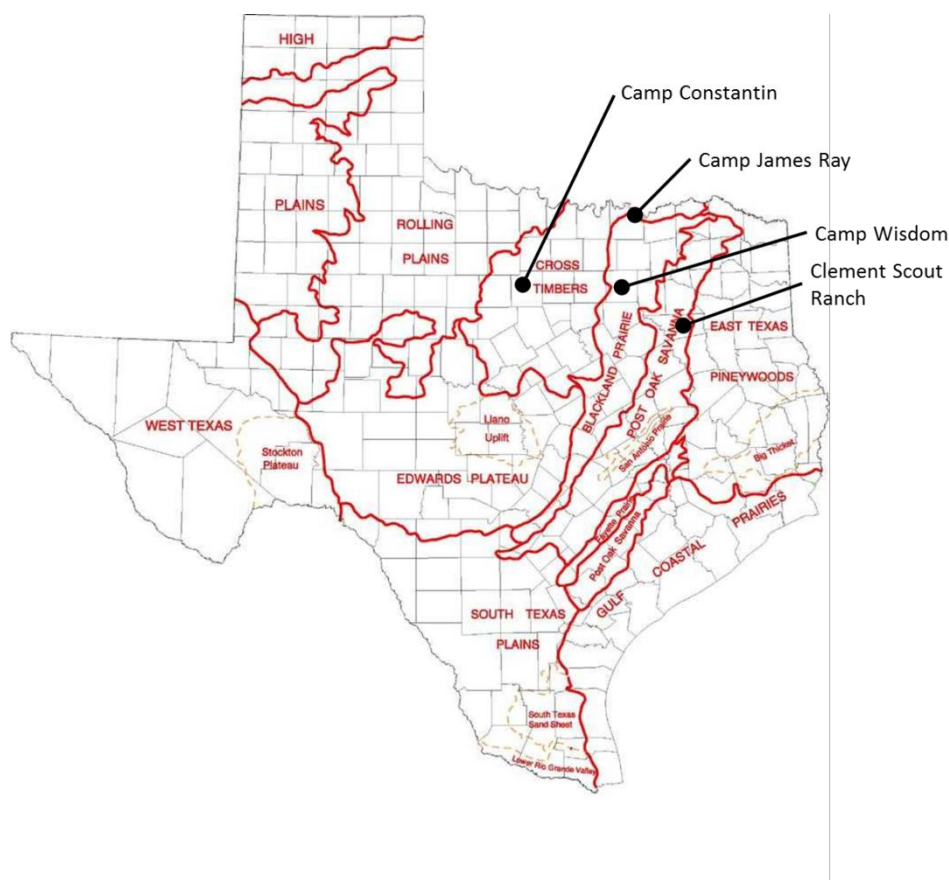


About this Guide

Texas has over 250 species of native trees. In fact over 50 percent of the nation's arboreal species occur in Texas, primarily due to diverse climates and species. Boy Scouts visiting the Scout camps of Circle Ten Council have the opportunity to appreciate this diversity with the many varieties trees that exist there. This guide, while not a comprehensive tree guide, will offer Scouts a better appreciation for trees in Texas by helping them identify over forty common trees found in Circle Ten Council's camps.

Texas is divided into ten primary vegetation regions and the camps of Circle Ten Council sit within four of these regions (Figure 1). Each region is unique, and this shows up in the variety of trees that can be found in each one.

Figure 1 Vegetation Regions of Texas with Circle Ten Council Boy Scout Camps



CLEMENTS SCOUT RANCH (Athens, TX)

Clements Scout Ranch is located at the intersection of two regions, the Pineywoods and the Post Oak Savanna. The Pineywoods of East Texas are comprised of a rich variety of trees, shrubs, woody vines, and herbaceous vegetation. As the name implies, pine forest ecosystems dominate much of the landscape, although variations in soil type, drainage characteristics, as well as human disturbance, give rise to areas dominated by native hardwoods such as oaks, elms, hickories, pecan, black walnut, tupelo, sweetgum, and others. The Post Oak Savannah is dominated by native bunch grasses and forbs with scattered post oaks and some plateau live oak, black hickory, and blackjack oak. In recent times this historical vegetation has been replaced by species such as yaupon holly, cedar elm, sugarberry, and eastern redcedar.

CAMP WISDOM (Dallas, TX)

Camp Wisdom is located in the heart of the Blackland Prairie. The Blackland Prairie is a true prairie grassland community which is dominated by a diverse assortment of perennial and annual grasses. The soil is considered some of the richest soil in the world. Live oaks are the trees that dominate a large part of this eco-region. The northern and central portions of the Blackland Prairie are predominately comprised of post oak, blackjack oak, American elm, winged elm, cedar elm, sugarberry, green ash, osage orange, honey mesquite, and eastern redcedar.

CAMP CONSTANTIN (Graford, TX)

Camp Constantin sits with the Cross Timbers region. The Cross Timbers region stretches from southern Kansas into central Texas, and contains irregular plains with some low hills and tablelands. It is a mosaic of forest, woodland, savanna, and prairie. The transitional natural vegetation of little bluestem grassland with scattered blackjack oak and post oak trees is used mostly for rangeland and pastureland. Streamside areas contain bottomland forests of such species as pecan, bur oak, American and slippery elm, ashes, cottonwood, sugarberry and black willow. Upland sites in the Cross Timbers predominantly contain post oak, blackjack oak, cedar elm, juniper, and sugarberry.

CAMP JAMES RAY (Pottsboro, TX)


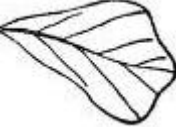

Camp James Ray sits in a diverse area where the Post Oak Savannah, Blackland Prairies, and Cross Timbers intersect. This offers Scouts a great opportunity to see a variety of trees.

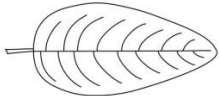
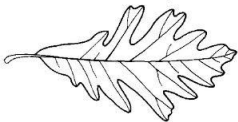
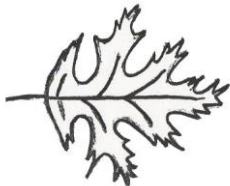

This tree identification guide will help Scouts better appreciate the tree diversity within in these camps through the ability to identify and learn about many common species that adorn them.

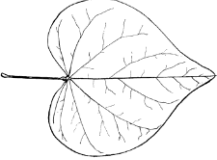


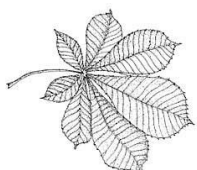

Using this Guide

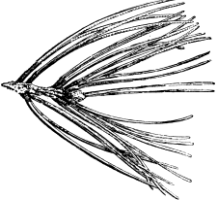
Leaf characteristic or shape identification is one of the easiest ways to identify trees. The trees within this guide are organized by leaf type to aid Scouts in the identification of common trees within each camp. In addition, Table 1 provides a complete list of trees within the guide and identifies the trees that can be found in each camp. Trees are listed by their common name and botanical name.

Table 1 Common Trees within Circle Ten Resident Camps by Leaf Type


Leaf Type	Tree	Clements Scout Ranch	Camp Wisdom	Camp Constantin	Camp James Ray
 Elongated leaves	Black Willow <i>Salix nigra</i>	●	●	●	●
 Paddle-shaped leaves	Texas Persimmon <i>Diospyros texana</i>	●	●	●	●
	Waxmyrtle <i>Morella cerifera</i>	●			
 "Entire" leaves (pointed tips)	Sugarberry <i>Celtis laevigata</i> var. <i>laevigata</i>	●	●	●	●

Leaf Type	Tree	Clements Scout Ranch	Camp Wisdom	Camp Constantin	Camp James Ray
	Flowering Dogwood <i>Cornus florida</i>	●			
	Osage Orange <i>Maclura pomifera</i>	●	●		●
	Button Bush <i>Cephalanthus occidentalis</i>	●	●	●	●
	Black Cherry <i>Prunus serotina</i> var. <i>serotina</i>	●			
	Mexican Plumb <i>Prunus mexicana</i>	●	●	●	●
	Hawthorn <i>Crataegus</i> spp.	●	●	●	●
	Winged Elm <i>Ulmus alata</i>	●	●	●	●
	American Elm <i>Ulmus americana</i>	●	●	●	●
“Entire” leaves (rounded tips) 	Live Oak <i>Quercus virginiana</i>	●	●		●
	Yuapon Holly <i>Ilex vomitoria</i>	●	●		●
	Cedar Elm <i>Ulmus crassifolia</i>	●	●	●	●
Leaves with rounded lobes 	Blackjack Oak <i>Quercus marilandica</i>	●	●	●	●
	Post Oak <i>Quercus stellata</i>	●	●	●	●
	Bur Oak <i>Quercus macrocarpa</i>	●	●	●	●
Leaves with pointed lobes 	Texas Red Oak <i>Quercus buckleyi</i>	●	●	●	●
	Shumard Oak <i>Quercus shumardii</i>	●	●	●	●
	Southern Red Oak <i>Quercus falcata</i>	●			
Hand-shaped leaves 	Sweetgum <i>Liquidambar styraciflua</i>	●			
	Red Maple <i>Acer rubrum</i>	●			

Leaf Type	Tree	Clements Scout Ranch	Camp Wisdom	Camp Constantin	Camp James Ray
	American Sycamore <i>Platanus occidentalis</i>	●	●	●	●
Heart-shaped leaves 	Eastern Redbud <i>Cercis canadensis</i> <i>var. canadensis</i>	●	●	●	●
	Eastern Cottonwood <i>Populus deltoides</i> <i>ssp. deltoides</i>	●	●	●	●
Doubly compound leaves 	Honey Mesquite <i>Prosopis glandulosa</i> <i>var. glandulosa</i>	●	●	●	●
Singly compound leaves 	Flameleaf Sumac <i>Rhus lanceolata</i>	●	●		●
	Pecan <i>Carya illinoensis</i>	●	●	●	●
	Black Walnut <i>Juglans nigra</i>	●	●	●	●
	Mexican Buckeye <i>Ungnadia speciosa</i>	●	●	●	●
	Black Hickory <i>Carya texana</i>	●	●	●	●
	White Ash <i>Fraxinus americana</i>	●	●		●
	Green Ash <i>Fraxinus pennsylvanica</i>	●	●	●	●
	Texas Ash <i>Fraxinus texensis</i>	●	●	●	●
Palmately compound leaves 	Red Buckeye <i>Aesculus pavia</i> <i>var. pavia</i>	●	●		●
Scaly leaves 	Ashe Juniper <i>Juniperus ashei</i>			●	●
	Eastern Redcedar <i>Juniperus virginiana</i> <i>var. virginiana</i>	●	●	●	●

Leaf Type	Tree	Clements Scout Ranch	Camp Wisdom	Camp Constantin	Camp James Ray
Needles 	Baldcypress <i>Taxodium distichum</i>	●			●
	Shortleaf Pine <i>Pinus echinata</i>	●			●
	Loblolly Pine <i>Pinus taeda</i>	●			●

Elongated Leaves

<div> <div>Black Willow</div> <div><i>Salix nigra</i></div>  </div>	Tree Description	A large tree usually growing to 50 feet tall, but can reach 100 feet, with one or more trunks to 3 feet in diameter and an upright branching habit. In winter the reddish-brown or golden twigs are conspicuous.
	Site Description	Occurs throughout Texas, along streams, in wet areas, and on riverbanks, frequently in groups or thickets.
	Leaf	Simple, alternate, 3" to 6" long and 0.5" to 0.75" wide, linear-lanceolate in shape, leaf margin finely-toothed; leaves are bright green on both sides, turning pale yellow in the fall. Deciduous.
	Flower	Male and female flowers are borne on separate trees in the spring as catkins, 1" to 3" long.
	Fruit	A long, cylindrical string of capsules, 3" to 4" long, each contains numerous small seeds with long silky hairs which enable them to be blown long distances.
	Bark	Light brown, gray, or black, developing broad plates that separate from the trunk and give it a somewhat shaggy appearance.
	Wood	Wood is soft, light, and not strong. A high grade of charcoal, used in the manufacture of gunpowder, is obtained from willow wood, and it is also used in manufacture of artificial limbs.
	Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Paddle-shaped Leaves

Texas Persimmon

Diospyros texana



Tree Description	A small tree to 40 feet, often low-forking or multi-trunked, with an open, oval crown. Notable for its muscular or fluted trunk and branches.
Site Description	Rocky and dry sites in Central and South Texas, west to Brewster county. Requires well drained soils and has gained favor as a landscape tree from Austin to Houston. Semi-evergreen.
Leaf	Simple, alternate, with almost no petiole, 1" to 2" long, obovate, thick and leathery, pubescent underneath; leaf edge without teeth, sometimes rolled under during droughts.
Flower	Male and female flowers on separate trees. Male flowers inconspicuous; female flowers small, white, five-petaled, appearing in spring and attracting many insects.
Fruit	A sweet, round fruit, 1" across and slightly depressed at the tip, black when ripe. Favored by wildlife and edible by humans.
Bark	Smooth, gray, and tight, developing olive or light brown patches that peel away to show the lighter bark beneath.
Wood	Wood is heavy and very dark, with pale sapwood. Uses include tools and turning blocks; the fruit has been used to make a black dye.
Resident Camp	Camp Constantine, Camp James Ray, Camp Wisdom, and Clements Scout Ranch


Waxmyrtle

Morella cerifera



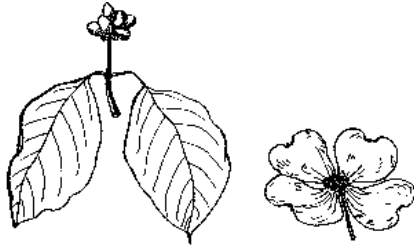
Tree Description	A shrub or small, multi-trunked tree to 20 feet tall and a trunk to 6" in diameter, with an open crown of light green foliage.
Site Description	Stream banks, swamps, and seasonally wet areas in East Texas. Also used extensively as a landscape shrub or tree for parking lots, commercial, and residential landscapes throughout East and Central Texas.
Leaf	Simple, alternate, 2" to 4" long and 0.5" to 0.75" wide, obovate, with a few sharp teeth along the upper half of the leaf margin. Leaves are evergreen; light green in color, and shiny above.
Flower	Male and female flowers on separate trees. Male flowers appear along the twigs in spring as short, 0.5" long, yellowish catkins; female flowers similar in size and shape to the male flowers, but reddish.
Fruit	A round, light green drupe, about 0.1" to 0.2" in diameter, clustered along the twigs, each fruit covered with a thick coating of whitish wax.
Bark	Smooth, gray, blotched on older trunks, developing shallow fissures on only the largest trunks.
Wood	Bayberry candles are made from the wax; the bark and leaves reportedly have medicinal properties. Also used extensively as a landscape shrub or small tree.
Resident Camp	Clements Scout Ranch

“Entire” Leaves (Pointed Tips)

Sugarberry <i>Celtis laevigata</i> var. <i>laevigata</i> 	Tree Description	A very common, large tree to 90 feet tall and a trunk 2 feet or more in diameter, though usually smaller in stature, with a round or oval crown of light green foliage.
	Site Description	Distributed widely over the eastern two-thirds of the state, sugarberry occurs most abundantly and attains greatest size in rich alluvial soils along river bottoms, but thrives on many other well-drained soil types.
	Leaf	Alternate, simple, 2.5" to 5" long and 1" to 2" wide, ovate or lanceolate, base lopsided, margin smooth or with a few remote teeth near the base, and long-pointed; leaf texture thin, smooth, with 3 prominent veins at the base beneath; leaf color light green turning yellow in fall. Deciduous.
	Flower	Borne on slender stalks in the leaf axils in April or May, inconspicuous, greenish-white in color.
	Fruit	Ripening in September as an orange-red, round or oblong drupe, about 0.25" in diameter, on a stalk up to 0.5" long, turning dark purple to black later in the fall.
	Bark	Gray or gray-brown, smooth and thin at first, developing the distinctive warty bumps and ridges on larger trunks and branches.
	Wood	Soft, weak, close-grained, and light yellow, used occasionally for flooring and furniture, but chiefly for fuel wood.
	Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Flowering Dogwood

Cornus florida



Tree Description	A small or medium-sized tree, up to 35 feet tall with a short, often crooked trunk to 12" in diameter, and a horizontal branching habit that forms a rather flat and spreading crown.
Site Description	In East Texas forests and woodlands, usually on well-drained soils under the shade of larger trees. Planted widely as a landscape tree, where it blooms best in full sun.
Leaf	Simple, opposite, 3" to 5" long and 1.5" to 3" wide, oval to almost round in shape, long-pointed, leaf edge wavy but without teeth, veins prominent and following the leaf margin; leaves are dark green above, grayish beneath, turning brilliant shades of red and purple in the fall. Deciduous.
Flower	Emerging before the leaves from the round, gray, winter buds, as a dense head of small, greenish-yellow flowers surrounded by 4 large, white (sometimes pink) petal-like bracts, the entire flower cluster measuring 2" to 4" across.
Fruit	A cluster of bright red drupes, each about 0.5" long, egg-shaped, and containing a hard nutlet with 1 or 2 seeds. The fruits are relished by birds, squirrels, and other animals.
Bark	Gray to black, smooth at first but breaking into small, square blocks with shallow fissures.
Wood	Heavy, hard, and strong, close-grained, brown to red in color. Formerly used for turnery, handles, and other woodenware; now used most often as a landscape specimen.
Resident Camp	Clements Scout Ranch

Osage Orange

Maclura pomifera



Tree Description	A medium-sized tree to 40 feet tall and a short trunk up to 3 feet in diameter, with many crooked, interweaving, thorny branches that form a dense, spreading crown.
Site Description	Native to East and Central Texas, it attains its largest size in the valley of the Red River in the northeast part of the state, often on clay soils.
Leaf	Simple, alternate, 3" to 5" long and 2" to 3" wide, ovate in shape and pointed at the tip, even at the base; leaf margin is smooth, and the top surface is glossy, dark green, lighter green underneath, and turning a clear yellow in the fall. The twigs are armed with stout, straight thorns and produce a sticky, milky sap when broken. Deciduous.
Flower	Male and female flowers borne on separate trees, in late spring; the male flowers form a short, linear cluster and the female flowers form a small, rounded ball in the leaf axils.
Fruit	A large, spherical, green fruit -- actually an aggregate of many small seeds -- ranging from 4" to 5" in diameter, resembling a green, wrinkled orange. Common names for the fruit are "horse apple" and "hedge apple."
Bark	Thin, brown to orange, divided into strips or flakes on older trunks. The bark contains tannin and was once used for tanning leather.
Wood	Wood is heavy, exceedingly hard, and very durable in contact with the soil. The heartwood is bright orange in color, turning brown upon exposure to the air. It is largely used for fence posts.
Resident Camp	Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Button Bush

Cephalanthus occidentalis



Tree Description	A shrub or small tree to 18 feet tall, with a tapering trunk up to 12" in diameter, usually swollen at the base. The upright branches form an irregular, rounded crown.
Site Description	Occurs throughout Texas, on moist, rich soils, wetlands, or other frequently flooded sites.
Leaf	Simple, opposite on the twig or in whorls of three, 3" to 8" long and 1" to 3" wide, oval or elliptical, pointed, rounded at the base, with a smooth margin. Leaves are thin, dark green above and lighter beneath, with a prominent central midrib. Deciduous.
Flower	Spherical clusters of round, creamy white or yellow flowers, about 1" in diameter appear in summer on stalks 1" to 3" long. The tiny individual flowers in the head are fragrant and nectar-bearing.
Fruit	A mass of red-brown nutlets forming a spherical head about 0.75" in diameter.
Bark	Thin, smooth, and reddish brown, turning gray, then darker on older trunks, with flat plates and deep fissures.
Wood	Wood has no commercial value, but it is sometimes available in nurseries as a landscape plant.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Black Cherry

Prunus serotina var. *serotina*



Tree Description	A large tree to 80 feet tall and a trunk 1 to 3 feet in diameter. Forest-grown trees have long clear trunks with little taper and an oval crown; open-grown trees have short trunks with many branches and an irregular, spreading crown.
Site Description	Occurs in East Texas on a variety of sites, but commonly found in fertile woods or along fencerows, burned areas, or disturbed sites where it is a pioneer species.
Leaf	Simple, alternate, 2" to 6" long and 1" to 1.5" wide, oval or elliptical in shape, with very fine teeth along the margin; glossy and dark green above, pale green beneath, with tufts of brown hairs along the midrib. Deciduous.
Flower	Drooping, cylindrical clusters of small, white flowers appear with the new leaves in spring.
Fruit	A purplish-black, berry-like drupe, up to 0.5" in diameter, borne in long, hanging clusters. The fruit ripens in late summer and is edible, though slightly bitter.
Bark	On branches and young trunks the bark is smooth, bright reddish-brown, and marked by conspicuous, narrow, horizontal lines called "lenticels;" older trunks develop small, flat, scaly plates; twigs have a bitter almond taste.
Wood	Red-brown heartwood with yellowish sapwood, moderately heavy, hard, strong, fine-grained, and does not warp or split in seasoning; used for fine furniture, cabinets, veneer, interior trim, and printers blocks.
Resident Camp	Clements Scout Ranch

Mexican Plumb

Prunus mexicana



Tree Description	A small tree to 25 feet tall and a short trunk 8" to 10" in diameter, with a short, irregular crown of dull green foliage.
Site Description	In East and Central Texas, on moist slopes, creek bottoms, fencerows, and canyons, usually as a solitary tree. Also planted widely in Texas as a landscape tree.
Leaf	Simple, alternate, 2" to 4" long and 1.5" to 3" wide, oval, often cupped at the edges, abruptly pointed at the tip and rounded at the base, and finely toothed (sometimes double-toothed) along the margin. The upper surface is smooth, thickened, and textured, yellow-green; lower surface lighter, hairy along the veins; leaves turn yellow or sometimes red in the fall. Deciduous.
Flower	Numerous clusters of white, five-petaled flowers, 0.75" in diameter, appear in March before the leaves.
Fruit	A plum (actually a drupe) that ripens in late summer, 1.25" in diameter, dark purple-red with a bluish "bloom", with a smooth stone 0.75" long under the juicy flesh.
Bark	Dark gray to nearly black, smooth when young with horizontal lenticels, developing broad plates with curled edges when older.
Wood	Fruits are used to make jams and jellies. Widely available as a drought-hardy landscape tree in commercial nurseries.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Hawthorn

Crataegus spp.



Tree Description	A group of 30 or so species, usually small trees or shrubs to 20 feet tall and one or more straight trunks to 4" in diameter, often bearing straight thorns, white blossoms, and red or yellow fruit.
Site Description	Different species are adapted to different sites, from the poorest to the richest soils, the shallowest to the deepest, and on limestone hills as well as flooded swamps. Some varieties are planted as landscape specimens.
Leaf	Simple, alternate, usually 2" to 3" long; shapes highly variable, ranging from oval, round, or elliptical (or even obovate in some species); rounded or wedge-shaped at the base, leaf edge toothed or double-toothed; most species with long, straight thorns on the twigs. Deciduous.
Flower	Dense, flat clusters of white, 0.5" flowers appear in spring after the new leaves. Some give off a slightly unpleasant odor.
Fruit	Variable; a round, red or yellow berry, 0.25" to 1" in diameter; when ripe, some have a pulpy, sweet, edible flesh, surrounding 1 to 5 bony seeds.
Bark	Thin, smooth, gray to red-brown at first, developing thin gray scales that peel away from trunks and branches to expose the new bark beneath. Old trunks are very rough, gray, and fissured.
Wood	Wood is strong, tough, heavy, hard, but rarely used for any purpose. Parsley hawthorn (<i>Crataegus marshallii</i>) is occasionally available as a landscape specimen.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Winged Elm

Ulmus alata



Tree Description	A medium or large tree to 70 feet tall and a trunk to 2 feet in diameter, with an open, somewhat vase-shaped crown, and graceful, pendant branches.
Site Description	In East Texas, south to the valley of the Guadalupe River, on a variety of sites, from dry, sandy uplands to moist soils along streams and swamps.
Leaf	Simple, alternate, 2" to 4" long and 1" to 2" wide, oval or elliptical in shape, pointed at the tip, margin coarsely double-toothed, dark green and smooth above, paler and often pubescent below with prominent veins. Leaf base can vary from slightly lopsided to wedge-shaped. Twigs with prominent corky wings on the twigs, with gaps at the leaf nodes. Deciduous.
Flower	Borne in early spring, long before the leaves unfold, as drooping clusters. One of the first trees to flower, often in late January or early February.
Fruit	Ripening in spring about the time the leaves appear, as a reddish-brown, oblong, winged seed ("samara"), 0.25" to 0.33" long, hairy, especially along the margin, and tipped with two small, incurved beaks.
Bark	Light brown tinged with red, divided by irregular shallow fissures into flat ridges.
Wood	Similar to that of the other elms: heavy, hard, and difficult to split, occasionally used for tool handles or furniture parts.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch


American Elm

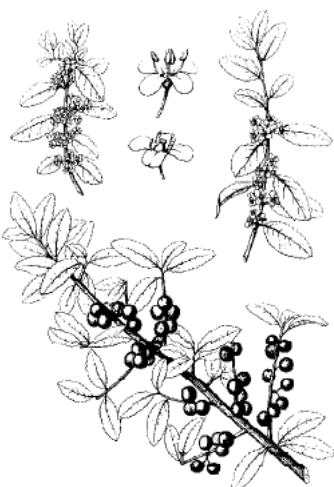
Ulmus americana



Tree Description	A large tree to 90 feet tall and a trunk diameter to 3 feet, with a buttressed base and upright branches that form a spreading, vase-shaped crown.
Site Description	Occurs across a vast area of the eastern U.S., into East and Central Texas, occurring naturally on well-drained soils along streams and rivers, but also planted widely as a shade tree.
Leaf	Alternate, simple, 4" to 6" long and 2" to 3" wide, oval or ovate in shape, tip drawn to a point, lopsided at the base, and double-toothed along the margin; leaf surface is either smooth or rough above and pubescent or smooth below, with raised veins. Deciduous.
Flower	Appearing before the leaves in early spring as small, greenish clusters on slender stalks in the axils of the leaves.
Fruit	An oval "samara" (winged fruit), with the seed portion in the center surrounded entirely by a wing with a fuzzy edge, ripening in the spring. The hairs on the samara margin and the deep notch in the end are characteristic of the species.
Bark	Dark gray, divided into irregular flat-topped, thick ridges, with narrow fissures between. An incision into an outer ridge of bark will show alternating brown and cream colored layers.
Wood	Heavy, hard, strong, tough, and difficult to split; once used for wheel hubs, saddle trees, veneer for baskets and crates, and furniture parts.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

“Entire” Leaves (Rounded Tips)

Live Oak <i>Quercus virginiana</i> 	Tree Description	A large, stately tree, commonly to 50 feet tall with a short, stout trunk of 4 feet or more in diameter, dividing into several large, twisting limbs that form a low, dense crown that can spread more than 100 feet, the limbs often touching the ground in open-grown settings.
	Site Description	Occurs on well-drained soils in the southern coastal plain, from Virginia through the Atlantic and Gulf states and into Texas, west to the Balcones Escarpment and south to Hidalgo county. Widely planted as a landscape tree in Texas.
	Leaf	Simple, alternate, evergreen, thick, and leathery; oval, oblong, or elliptical in shape, 2" to 4" long and 0.5" to 2" wide; smooth, glossy, and dark green above, pale and silvery white beneath. Leaves can sometimes be toothed, especially towards the tip. Evergreen.
	Flower	Borne in spring on the same tree, the male flowers on catkins up to 3" long, and the female flowers on a peduncle 1" to 3" long in the leaf axils.
	Fruit	An acorn, requiring one year to mature, about 1" long and 0.5" in diameter, oblong, dark brown and shiny, set about one-half its length in a gray, downy cup that is borne on a long stem or peduncle.
	Bark	Dark brown, rough, and furrowed on trunk and large branches, developing very thick, interlacing ridges and deep furrows on older trees. Some specimens have thinner, paler, scaly bark.
	Wood	Very heavy, hard, strong and tough, light brown with nearly white, thin sapwood; formerly used in shipbuilding and for wagon wheel hubs. Now primarily sold as a landscape tree in the nursery trade.
	Resident Camp	Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Yuapon Holly <i>Ilex vomitoria</i> 	Tree Description	A thicket-forming shrub or small, multi-trunked tree to 25 feet tall and stems up to 6" in diameter, with a dense, conical or rounded crown of dark green foliage.
	Site Description	Common on the fertile, moist soils of East Texas bottomlands, but also south to Matagorda Bay and west to the edge of the Edwards Plateau.
	Leaf	Simple, alternate, 1" to 2" long by 0.5" to 1" wide, oval, leathery, with blunt teeth along the margin. Leaves are glossy and dark green above, paler below, evergreen and persistent for 2 to 3 years. Evergreen.
	Flower	Small, whitish, not showy; male and female flowers are borne on separate plants.
	Fruit	A red, translucent, berry-like drupe, about 0.25" in diameter, on a short stalk, ripening in late fall and often produced in great abundance by the female plants.
	Bark	Light gray, smooth or leathery, sometimes developing thin scales and blotches on larger stems.
	Wood	Wood is of little commercial value except for fuel; plants are commonly sold in the nursery trade as a landscape specimen.
	Resident Camp	Camp James Ray, Camp Wisdom, and Clements Scout Ranch

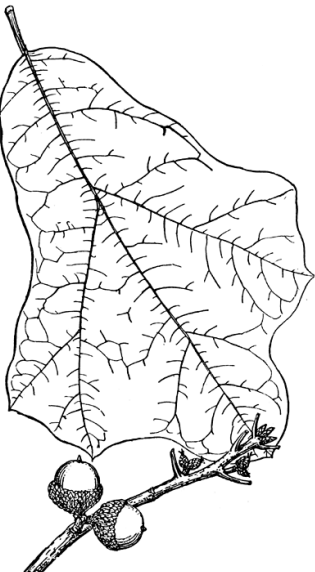
Cedar Elm

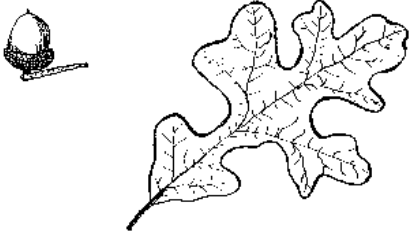
Ulmus crassifolia



Tree Description	A large tree to 75 feet tall with a tall straight trunk 2 to 3 feet in diameter and stiff branches that form a narrow, oblong crown.
Site Description	The most common elm tree in Texas, distributed widely in East, South, and Central Texas. Most often found near streams, in solid stands on flat woods near rivers, or on dry limestone hills. Also planted widely as a landscape tree.
Leaf	Alternate, simple, 1" to 2.5" long and 0.75" to 1" wide, oval to elliptical in shape, finely-toothed or sometimes double-toothed along the margin, and blunt at the tip. The upper surface is dark green, shiny, and rough, while the lower surface and petiole are pubescent. Twigs sometimes have thin, corky "wings" and the leaves can turn gold to orange-red in the fall. Deciduous.
Flower	Appear in late summer or autumn as hairy, short-stalked clusters in the leaf axils.
Fruit	An oval "samara," 0.25" to 0.5" long, the seed centered in the middle of the wing, deeply notched at the tip and hairy all over, especially along the margin. Seeds are borne in the fall, which distinguishes this species from the other native elms.
Bark	Light brown to gray, with flattened ridges that break into thin, loose, flaky scales.
Wood	Reddish-brown, brittle, with a thick layer of light-colored sapwood. The wood is sometimes used to manufacture wheel hubs, furniture, and fencing. Commonly sold in the nursery trade as a landscape tree.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Leaves with Rounded Lobes

Blackjack Oak <i>Quercus marilandica</i> 	Tree Description	A medium to large tree that can reach a height of 60 feet and a diameter of 16" to 24", but is usually much smaller. Its stiff, drooping branches form an irregular, dense crown that often contains many persistent dead twigs or branches.
	Site Description	Occurs in East and Central Texas, as far west as Callahan county, on dry or poorly drained, gravelly clays, or sandy upland soils where few other forest trees thrive.
	Leaf	Simple, alternate, 4" to 10" long and 3" to 5" wide, strongly obovate, usually with three main bristle-tipped lobes on the upper half of the leaf, the bottom half narrowing abruptly to the petiole. Leaves are leathery, dark green and glossy on top, lighter and tawny-pubescent below. Deciduous.
	Flower	Separate male and female flowers appear in spring on the same tree. Male flowers borne on a yellowish catkin 2" to 4" long; the less conspicuous female flowers are reddish in color.
	Fruit	An acorn, taking two years to mature, about 0.75" long, yellow-brown and often striped, enclosed for one-half to two-thirds its length in a thick, light-brown cup.
	Bark	Black or dark gray, very rough and breaking into thick, squarish blocks on older trunks.
	Wood	Heavy, hard and strong. It is used for firewood, posts, and is made into charcoal.
	Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Post Oak <i>Quercus stellata</i> 	Tree Description	A common, medium to large tree with a short trunk and a compact, rounded crown, commonly reaching a height of 50 feet and a diameter of 2 feet, but sometimes considerably larger.
	Site Description	One of the most widespread oaks in Texas, common to both East and Central Texas, west to the Panhandle, growing on upland soils either deeply sandy or on gravelly clays with poor surface drainage.
	Leaf	Simple, alternate, usually 4" to 6" long and nearly as broad, highly variable but typically 5-lobed, no bristle-tips, the lobes broadest at the ends and often forming a "cross" shape, thick and somewhat leathery, dark green and shiny on the upper surface, lighter green and finely-pubescent beneath. Deciduous.
	Flower	Male and female flowers borne in spring on the same tree, the male flowers on drooping clustered catkins, 2" to 4" long, the female flowers inconspicuous.
	Fruit	An acorn, requiring one season to mature, oval, 0.5" to 0.75" long, set one-third to one-half its length in a gray, bowl-shaped cup which has thin scales, sometimes with a short stalk.
	Bark	Thick, gray-brown, developing narrow, irregular fissures and scaly ridges on older trunks.
	Wood	Heavy, hard, close-grained, light to dark brown and durable in contact with the soil; used for crossties and fence posts and occasionally for lumber.
	Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch


Bur Oak

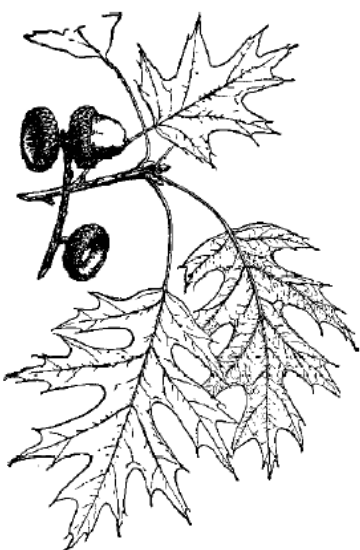
Quercus macrocarpa



Tree Description	A large tree of the prairies reaching a height of 80 feet or more and a trunk diameter of 5 feet, with a short body and heavy branches that form an open, spreading crown of dark green foliage.
Site Description	Occurs on limestone soils in Central Texas as far west as Tom Green county, often on rich bottomlands along streams or hillsides and banks along spring-fed rivers. Also planted widely as a landscape tree throughout Texas.
Leaf	Simple, alternate, 6" to 12" long and 3" to 6" wide, with 5 to 9 highly variable lobes that lack bristle-tips; lobes are divided by at least one pair of very deep sinuses, and the upper one-third of the leaf typically has a roughly-toothed or weakly-lobed margin. Deciduous.
Flower	Separate male and female flowers appear in spring on the same tree. Male flowers borne on a yellowish catkin 4" to 6" long; inconspicuous female flowers reddish in color.
Fruit	An acorn, requiring a single season to mature, 1" to 2" long, ovoid, set deeply in a mossy-fringed cup that gives the species its common name.
Bark	Twigs and branches are thick, developing conspicuous corky ridges after the second year; bark is light gray, rough and breaks into small, narrow flakes on young trees, then develops very thick bark with deep fissures and narrow plates.
Wood	Heavy, hard, strong, tough and durable; used for lumber, crossties, and fuel wood.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

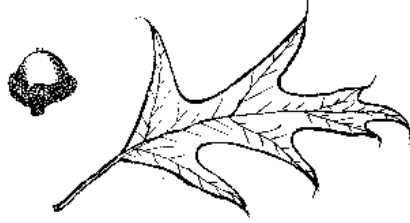
Leaves with Pointed Lobes

Texas Red Oak <i>Quercus buckleyi</i> 	Tree Description	Usually a medium-sized tree to 35 feet tall with one or more trunks 10" in diameter, but can reach heights of 70 feet on fertile sites.
	Site Description	Found on dry, limestone hills and ridges, and sometimes in the more fertile soils at their base, in Central Texas west to the Edwards Plateau.
	Leaf	Simple, alternate, 3" to 5" long and 2.5" to 3" wide, widest above the middle, divided into 5 to 7 bristle-tipped lobes, with the terminal lobe often 3-lobed and the sinuses usually deep. Leaves have a slender petiole about 1" long, are dark green and shiny above, paler below, and turn deep shades of red in the fall. Deciduous.
	Flower	Male and female flowers borne separately in spring on the same tree; male catkins 1.5" to 3.5" long, yellowish-green, female flowers reddish, about 0.5" long, usually solitary.
	Fruit	An acorn, requiring two years to mature, usually single or in pairs, short-stalked, reddish-brown, pubescent, and often streaked with dark lines; measuring 0.25" to 0.75" long, ovoid, and set in a cup that covers one-quarter to one-half of the fruit.
	Bark	Dark gray to black, smooth at first, then very rough with deep fissures and ridges.
	Wood	Used for fuel wood and posts. Also used as a landscape tree in Central Texas.
	Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Shumard Oak <i>Quercus shumardii</i> 	Tree Description	A large forest tree reaching heights of 100 feet or more and a trunk to 3 feet in diameter, with a wide-spreading, symmetrical crown. It often occurs as a single tree or in small groups in forest stands, and is an excellent landscape tree.
	Site Description	Occurs in East Texas on well-drained alluvial soils and on fertile slopes, west to the Balcones Escarpment near Austin and San Antonio and then northeast to Dallas and the Red River.
	Leaf	Simple, alternate, 6" to 8" long and 4" to 5" wide, usually with 7 to 9 bristle-tipped lobes (rarely 5), the widest lobes on the upper half of the leaf, with one or more pairs of deep, rounded sinuses between the lobes. Leaves are glossy, dark green on top, light green and smooth beneath, except for small tufts of pubescence in the axils of the veins. Deciduous.
	Flower	Male and female flowers borne in spring on the same tree, the male flowers on catkins 6" to 7" long, the female flowers solitary or paired in the leaf axils.
	Fruit	An acorn, requiring two years to mature, 0.75" to 1.25" long and 0.5" to 1" in diameter, set only at the base in a shallow, saucer-like cup.
	Bark	Dark gray, smooth and tight at first, but developing flat, interlacing ridges and rough fissures with age. Old trees can have deep fissures between the smooth ridges.
	Wood	Heavy, hard, strong, close-grained, and light reddish-brown in color, and commercially important for lumber, furniture, flooring, interior trim, and veneer.
	Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch


Southern Red Oak

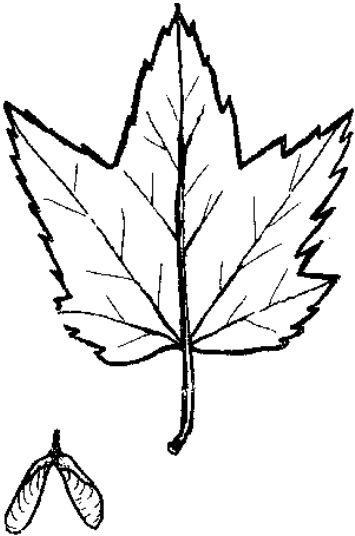
Quercus falcata



Tree Description	A large forest tree to 100 feet tall and a trunk sometimes exceeding 3 feet in diameter, with an open, rounded crown of glossy foliage. A common, but highly variable species.
Site Description	In East Texas, west to the Brazos River, growing on a wide range of sites from dry hills to more moist slopes and bottomlands.
Leaf	Simple, alternate, highly variable, but usually 5" to 10" long and up to 5" wide, with 3 to 5 bristle-tipped lobes, the central lobe often longest; lobes typically come off the midrib at acute angles (not perpendicular) and are often limited to the upper half of the leaf. Leaf color is glossy and gray-green on top, paler gray below, with soft pubescence. Deciduous.
Flower	Male and female flowers borne separately in spring on the same tree; male catkins 3" to 5" long, yellowish-green, female flowers inconspicuous and borne on a short, downy stalk.
Fruit	An acorn, requiring two years to mature, 0.5" long, rounded or hemispheric, set about one-third its length in a thin, saucer-shaped cup that tapers to a short stalk.
Bark	Light gray on younger trees, turning dark gray, rough, and not deeply furrowed on older trunks.
Wood	Heavy, hard, strong, coarse-grained, and valuable for lumber. The bark is rich in tannin. The tree is also desirable as a shade tree and is available in the nursery trade.
Resident Camp	Clements Scout Ranch

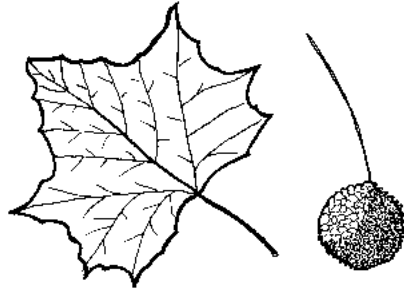
Hand-shaped Leaves

Sweetgum <i>Liquidambar styraciflua</i> 	Tree Description	A large forest tree to 100 feet tall or more and a straight trunk to 3 feet or more in diameter, with a conical shape when young and an upright, broad crown on older trees.
	Site Description	Occurs in East Texas on rich river bottom soils, in swamps subject to frequent flooding, and dry uplands, as far west as the San Jacinto river basin.
	Leaf	Simple, alternate, star-shaped, 4" to 7" long and wide, with 5 to 7 pointed lobes and a finely-toothed leaf margin. Leaves are aromatic when crushed and turn brilliant colors of yellow, orange, red, and purple in the fall. Deciduous.
	Flower	Male and female flowers are borne separately on the same tree, opening with the leaves; male flowers are small, greenish, and inconspicuous; the female flowers are small round heads on a long stalk.
	Fruit	A composite fruit shaped like a spiky ball, 1" to 1.5" in diameter, on a long stalk, made up of many capsules enclosing the seeds. Fruits hang on the twigs late into winter.
	Bark	Twigs are reddish-brown and sometimes have corky wings; bark is light gray, turning rough with rounded, corky ridges that develop into broader plates and deep furrows on older trunks.
	Wood	Moderately hard, close-grained, and not durable on exposure; wood is extensively used for flooring, railroad ties, paper pulp, and veneers for baskets of all kinds; also available as a landscape specimen.
	Resident Camp	Clements Scout Ranch

Red Maple <i>Acer rubrum</i> 	Tree Description	A medium sized, fast-growing tree that reaches 90 feet tall and a trunk to 2 feet in diameter, red maple has a somewhat narrow, rounded crown.
	Site Description	Abundant in low, moist areas in the eastern part of the state.
	Leaf	Leaf blades are 2" to 5" long, on a petiole 2" to 4" long, and have from 3 to 5 pointed saw-toothed lobes separated by sharp angular sinuses or openings. In autumn, the leaves turn a brilliant shade of red, or in some varieties, orange-yellow. Deciduous.
	Flower	The red flowers appear in dense clusters in early spring before the leaves, the buds turning a deep red sometimes before they open.
	Fruit	A "key or double samara, ripening in late spring or early summer, red to brownish-red. Each half measures between 0.5" to 1" long.
	Bark	Smooth and light gray on young tree trunks and branches; breaking into rough, scaly, dark gray bark on old limbs and trunks.
	Wood	Known commercially as soft maple, the wood is heavy, close-grained, rather weak, and of light brown color; it is used in the manufacture of furniture, for turnery, woodenware, and fuel.
	Resident Camp	Clements Scout Ranch

American Sycamore

Platanus occidentalis

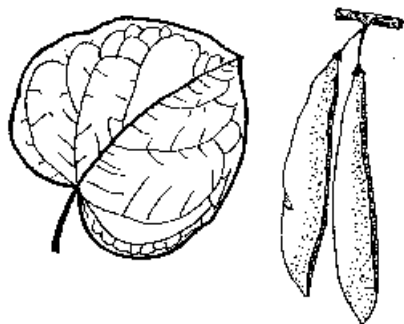


Tree Description	Considered the largest deciduous tree in North America, sycamore in Texas can exceed 100 feet in height and 4 feet in diameter, with a stout trunk and large, spreading limbs that create an oval or round, spreading crown.
Site Description	Occurs along streams and on rich bottomlands throughout eastern Texas, along the major rivers of the Edwards Plateau, and southwest to Maverick County.
Leaf	Simple, alternate, 4" to 12" wide and about as long, palmately-veined with the 3 to 5 main veins ending at the tip of a wide lobe, leaf edge coarsely-toothed between the lobes; leaves are bright green and smooth above, paler and pubescent below, turning brown in the fall. The base of the petiole is hollow and covers the winter bud. Deciduous.
Flower	Male and female flowers borne separately on the same tree as 0.5" round clusters on short stalks.
Fruit	A spherical ball about 1" in diameter, attached to a flexible stalk 3" to 5" long. During early spring the fruit balls break up into the individual nutlets, which have long hairs that help scatter them by wind or water.
Bark	The bark on the younger trunk and large limbs is smooth and greenish-gray or white in color; as the tree ages, the outer bark of limbs and trunk flakes off in irregular, brown patches and exposes the nearly white younger bark beneath.
Wood	Hard and moderately strong, but decays rapidly in the ground. Has been used for butcher blocks, rolling pins, crates, and tobacco boxes. Also used as a landscape tree.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Heart-shaped Leaves

Eastern Redbud

Cercis canadensis var. *canadensis*



Tree Description	A small or medium-sized tree, usually less than 40 feet tall and a trunk to 12" in diameter, with arching branches that forms a wide, flat-topped crown.
Site Description	Occurs in East Texas, west to Austin and Dallas, usually on well-drained soils along in forests or at the edge of the woods or planted as a landscape specimen.
Leaf	Alternate, simple, heart-shaped, 3" to 5" long and wide, leaf edge smooth; upper surface dull, dark green, and lighter beneath, turning yellow in the fall. Deciduous.
Flower	One of the first trees to bloom in early spring, the flowers appear before the leaves as conspicuous, pink to purplish, pea-shaped flowers in clusters along the twigs and small branches.
Fruit	A flattened, many-seeded pod, 2" to 4" long and 0.5" wide, tapering at the ends, reddish during the summer and brown when ripe, often hanging on the tree through the following winter.
Bark	Reddish-brown, smooth when young, but developing a scaly texture and then long, narrow plates and shallow fissures on older trunks.
Wood	Heavy, hard, not strong, rich dark-brown in color, and of little commercial importance; cultivated in the nursery trade as a landscape tree.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Eastern Cottonwood

Populus deltoides ssp. *deltoides*



Tree Description	A large tree to 100 feet tall and a stout trunk to 6 feet or more in diameter, with thick, heavy branches that form a rounded, spreading crown.
Site Description	Occurs along stream banks, river bottoms, and sandbars in East and Central Texas. Also planted as a fast-growing shade tree on rural homesteads.
Leaf	Simple, alternate, leaf blade 3" to 5" long and across, triangular in shape, on a flattened petiole 2" to 3" long; pointed at the tip, square at the base or slightly heart-shaped, and coarsely toothed on the margin; shiny and medium green on top, lighter beneath. The flat petiole makes the leaves twist and shimmer even in a light breeze. Deciduous.
Flower	Male and female flowers borne on separate trees before the leaves emerge; male catkins 2" long, female catkins 3" to 3.5" long, in loose clusters.
Fruit	A long string of capsules, 8" to 12" long, ripens in early summer, each containing several seeds with white silky hairs which permit the winds to carry them for long distances.
Bark	Thin, smooth, green to yellowish on twigs and young branches, turning brown with age; older branches and trunks are gray or brown, with thick, flattened ridges and deep furrows.
Wood	The light-colored wood is soft, light, and warps easily upon drying, but is used for boxes, paper pulp, veneer, and pallets.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Doubly Compound Leaves

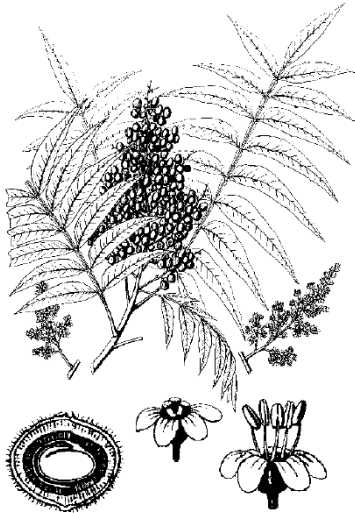
Honey Mesquite


Prosopis glandulosa var.
glandulosa



Tree Description	A thorny, multi-trunked shrub, or a medium-sized tree to 40 feet tall and one or more leaning, crooked trunks 18" to 24" in diameter, with a spreading, open, irregular, crown of drooping foliage.
Site Description	One of the most common species in Texas, occurring statewide except for East Texas where it occurs rarely, on salty soils. Mesquite is quite invasive in cattle pastures and open, unmaintained fields.
Leaf	Alternate, compound, bi-pinnate, with the two pinnae attached to a long petiole; each pinna consists of 10 to 20 leaflets attached to a central rachis, 8" to 10" long. The leaflets are linear, 2" long by 0.25" wide, smooth, medium green, often blunt or rounded at the tips. Deciduous.
Flower	Long, cylindrical spikes, 2" to 4" long, of small, yellow flowers appear from the leaf axils in spring or early summer.
Fruit	A reddish-brown or purplish pod about 4" to 9" long, like a pea pod but constricted slightly between the 10 to 20 seeds, which are enclosed in a thick, sweet pulp; used by native peoples as food and eagerly sought by wildlife and livestock.
Bark	Twigs and branches armed with stout, straight thorns up to 2" long. Bark is thin and brown or gray at first, breaking into a dark, rough, scaly surface on branches, and then into dark brown or black ridges and furrows on the trunk.
Wood	Wood is heavy, hard, and dark brown in color, with lighter sapwood, and is used for fuel wood, barbeque wood, fence posts, flooring, furniture, and paneling. Flowers make an excellent honey, and the seeds are sometimes used as livestock forage during droughts. Also used as a drought-tolerant landscape tree.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Singly Compound Leaves

<div> <h3>Flameleaf Sumac</h3> <p><i>Rhus lanceolata</i></p>  </div>	Tree Description	A shrub or small tree to 20 feet tall and one or more trunks to 8" in diameter, with irregular branching that forms a loose, rounded crown of shiny green foliage.
	Site Description	Disturbed sites, fencerows, and rocky limestone slopes in Central Texas, from the Balcones Escarpment north and west to the mountains of the Trans-Pecos.
	Leaf	Branches, twigs, and leaves without prickles or thorns; leaves are alternate, once-compound, 5" to 9" long, with 11 to 21 leaflets and a weakly-winged rachis; leaflets 1" to 3" long and up to 0.5" wide, lanceolate, the margins mostly without teeth. Leaves turn bright shades of yellow, orange, and red in the fall. Deciduous.
	Flower	A tight spike of white flowers, 4" to 6" long, appears in spring at the ends of the branches.
	Fruit	A conical cluster of small, dark red, berry-like drupes, each about 0.2" in diameter with minute hairs.
	Bark	Smooth, gray-brown, developing horizontal lenticels that break up on larger trunks into scaly plates and rough fissures.
	Wood	Sold in nurseries as a native landscape specimen for its fall color.
	Resident Camp	Camp James Ray, Camp Wisdom, and Clements Scout Ranch

<div> <h3>Pecan</h3> <p><i>Carya illinoensis</i></p>  </div>	Tree Description	A large tree to 120 feet tall and a trunk to 4 feet in diameter, with a broad, spreading crown when grown in the open. In wooded settings it grows tall and slender, with ascending branches and a tight, flat-topped crown.
	Site Description	Occurs in rich, fertile bottomlands across most of the state, from the East Texas pineywoods throughout Central Texas and west to the Concho River valley. Planted widely as a landscape tree and in orchards for nut production.
	Leaf	Alternate, once-compound, 12" to 20" long, with 11 to 17 leaflets, each 4" to 8" long and up to 2" wide, lanceolate in shape, often falcate or inequilateral, finely-toothed and long-pointed; largest leaflets are typically towards the end of the leaf. Branches, twigs, and leaves lack thorns or prickles. Deciduous.
	Flower	Male and female flowers appear in early spring, separately on the same tree; male catkins are 3" to 6" long, female flowers in short spikes at the tips of the branches.
	Fruit	A large, cylindrical or oval nut, 1" to 2" long and up to 1" in diameter, enclosed in a thin husk which opens along grooved seams when the fruit ripens in the fall. The nuts vary considerably in size and thickness of shell and are rich in protein, oil, and minerals.
	Bark	Gray-brown and smooth at first, later breaking into thin scales that flake as the bark grows older, developing a rough texture of narrow, flat ridges and shallow fissures on older trunks.
	Wood	Heavy, hard, brittle, not strong, used for flooring and cooking wood, especially for barbeques. The tree is cultivated widely for its nuts, and many varieties have been developed and are sold in large quantities.
	Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Black Walnut

Juglans nigra



Tree Description	A large tree to 100 feet tall and a trunk to 3 feet or more, with a straight stem often clear of branches for half of its height, and an open, rounded crown of foliage.
Site Description	Occurs in East Texas on rich bottomlands and moist fertile hillsides, as far west as the San Antonio river.
Leaf	Alternate, once-compound, 12" to 24" long, yellowish-green in color, pubescent beneath, consisting of 15 to 23 leaflets, each 3" to 5" long and 1" to 2" wide, the largest ones in the middle of the leaf, finely-toothed along the margin and tapering to a long point at the tip. Deciduous.
Flower	Male and female flowers borne separately on the same tree in early spring; the male flowers as stout, greenish-yellow catkins 2" to 5" long; female flowers occur in groups of 1 to 4 on new growth at the end of twigs.
Fruit	A large, round nut, borne singly or in pairs, 1.5" to 2.5" in diameter, enclosed in a solid green, leathery husk that does not split even after ripening; the nut is black, with a thick, hard, finely-ridged shell that holds the oily, but edible, kernel.
Bark	Thick, dark brown, with blocky or rounded ridges divided by deep fissures. The trunk, branches, and leaves are free of prickles or thorns.
Wood	The chocolate-brown heartwood is heavy, hard and strong, and is surrounded by a thin band of cream-colored sapwood. The wood is free from warping and checking, takes a high polish, and is durable, making it highly prized for furniture, cabinet work, and gunstocks.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Mexican Buckeye

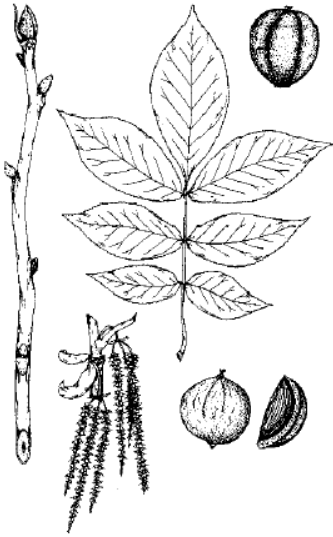
Ungnadia speciosa



Tree Description	A many-trunked shrub or small tree up to 20 feet tall and trunks up to 10" in diameter, forming an irregular crown.
Site Description	Limestone soils in Central and West Texas, especially moist canyons, seeps, or rocky bluffs.
Leaf	Once-compound, alternate, 9" to 12" long, with 5 to 9 leaflets, each 3" to 5" long and 1.5" to 2" wide, ovate or lanceolate, bluntly-toothed along the margin, dark green and glossy on top, paler below, turning yellow in fall. Deciduous.
Flower	Just before the leaves in spring, a short cluster of pink flowers, each about 1" across.
Fruit	An odd, woody capsule, about 2" across, shaped like a fig, three-lobed, light brown, enclosing one to three round smooth seeds.
Bark	Light brown or gray, smooth at first, but developing thin scales and shallow fissures on larger trunks.
Wood	The flowers produce an excellent honey; also sold in native plant nurseries for its landscape value.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Black Hickory

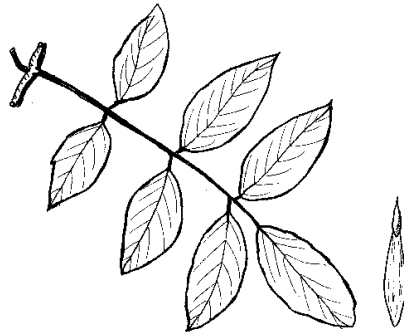
Carya texana



Tree Description	A medium to large tree, usually 60 to 75 feet tall, with a dark trunk 2 feet in diameter and short, gnarled branches that give the tree a narrow, oval crown of dark green foliage.
Site Description	From East Texas south and west to the Hill Country and San Antonio, growing on well-drained hillsides and sandy uplands with post and blackjack oaks.
Leaf	Alternate, once-compound, 8" to 12" long, with 5 to (usually) 7 leaflets; leaflets are 3" to 5" long and 2" wide, dark green and lustrous above, pale yellow-green beneath; undersides of leaves and the petiole have red-brown hairs when young, becoming smooth with age. Deciduous.
Flower	Male and female flowers are borne separately on the same tree; the male catkins in groups of three, 2" to 3" long, the female flowers in short clusters at the tips of the branches.
Fruit	A round nut, 1.25" to 2" long, ovoid or slightly narrowed to a short stalk at the base, enclosed in a thin husk 0.1" to 0.2" thick that splits to the middle or nearly to the base. The hard shell is slightly four-angled and holds the sweet-seeded nut.
Bark	Dark gray to black, with tight, irregular, blocky ridges and deep furrows on older trunks.
Wood	Used chiefly for fuel wood, especially for cooking fires.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

White Ash

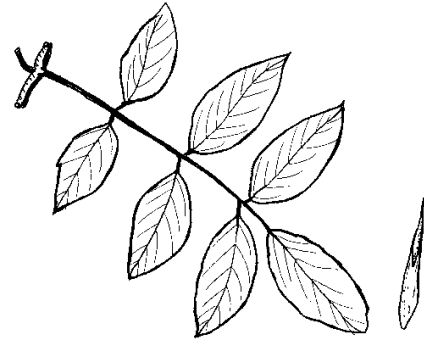
Fraxinus americana



Tree Description	A large forest tree, to 100 feet tall and a trunk to 3 feet in diameter, with a tall trunk and a relatively short, oval crown.
Site Description	Throughout East Texas, westward to the valley of the Trinity river. It grows best on the rich, moist, well-drained soils and slopes adjacent to river bottoms.
Leaf	Opposite, compound, 8" to 12" long, with 7 to 9 (usually 7) leaflets arranged pinnately; leaflets are 3" to 5" long, short-stalked, ovate or oval, pointed at the tip, margin smooth or with a few remote teeth. Leaf color is dark green above and whitish beneath, turning gold, orange, or purple in fall. New rust-colored winter buds sit tucked into a notch of the leaf scars left on the twigs after leaf drop. Deciduous.
Flower	Male and female flowers appear on separate trees, the male in dense reddish-purple clusters and the female in more open branched clusters.
Fruit	A "samara," maturing in late summer and distributed by the wind, 1" to 2" long, resembling the blade of a canoe paddle, with the smooth, tapering seed at the handle end. The wing of the samara is often notched at the tip, and is attached rather abruptly to the seed.
Bark	Gray or whitish, with interlocking flat-topped ridges and furrows that deepen and darken with age.
Wood	An extremely valuable timber tree over its native range due to its toughness and elasticity. It is preferred for tool handles and baseball bats, and is used extensively for furniture and interior finish, such as cabinets.
Resident Camp	Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Green Ash

Fraxinus pennsylvanica



Tree Description	A large forest tree to 70 feet and a trunk to 2 feet in diameter, with spreading branches and an oval crown.
Site Description	A common bottomland tree across the eastern third of Texas, as far west as the Guadalupe River. Prefers moist, fertile soils.
Leaf	Opposite, compound, 10" to 12" long, with 7 to 9 leaflets arranged pinnately; leaflets are 2" to 6" long and 1" to 2" wide, short-stalked, ovate to lanceolate, pointed at the tip, margin smooth or faintly toothed. Leaf color is dark green above and light green beneath, turning yellow in the fall. Buds sit on top of the half-moon-shaped leaf scars left on the twigs after leaf drop. Deciduous.
Flower	Male and female flowers borne on separate trees. Female flowers in loose clusters; male flowers appear as dark clusters of stamens near the end of the twigs, before the leaves.
Fruit	A flat, winged "samara," 1" to 1.5" long and 0.25" to 0.33" wide, the winged portion extending well down past the middle of the seed, maturing in late summer and distributed by the wind.
Bark	Light brown to gray, thick, with flat-topped narrow ridges forming an interlaced pattern, the furrows dark.
Wood	The wood is heavy, hard, rather strong, brittle, and coarse-grained. It is used for the same purposes as white ash but is not as desirable.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Texas Ash

Fraxinus texensis



Tree Description	A medium-sized tree to 45 feet tall and a trunk to 2 feet in diameter, with an oval crown.
Site Description	From the Dallas area to Central Texas and west to the Edwards Plateau, on rocky limestone hillsides, bluffs, and ridges.
Leaf	Opposite, compound, 5" to 8" long, with 5 oval or round leaflets arranged pinnately; leaflets are long-stalked and 1" to 3" long. Leaf color is dark green on top, much lighter below, usually turning brown in early fall. Deciduous.
Flower	Male and female flowers borne on separate trees. Female flowers in loose clusters appearing with the new leaves; male flowers appear as dark, purplish clusters near the end of the twigs, often before the leaves.
Fruit	A slender, pointed seed enclosed by a flattened wing, or samara, about 1" long and up to 0.25" wide; fruits are borne in loose clusters connected by short stalks.
Bark	Gray, with brown or black blotches, furrowed, with the interlocking flattened ridges common to the ashes on older trunks.
Wood	Wood is light colored, with brown heartwood, and has been used for firewood and flooring.
Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Palmately Compound Leaves


Red Buckeye


Aesculus pavia var. *pavia*



Tree Description	A woodland shrub or small tree to about 20 feet tall and a diameter up to 12", with thick, ascending branches and a rounded crown.
Site Description	Occurs in east and central Texas, to the edge of the Edwards Plateau, mostly on rich soils and along streams.
Leaf	Leaves are opposite and compound; the 5 (rarely 7) smooth, glossy, dark green leaflets are arranged palmately and measure 3" to 6" long, with coarsely serrated edges. Leaves turn yellowish-brown and drop in late summer or early fall. Deciduous.
Flower	A cluster of narrow, tubular, inch-long red flowers appears at the end of a stalk 4" to 8" long, in April or May, after the leaves.
Fruit	A capsule, generally round, 1" to 2" in diameter, pale brown and smooth, splitting into two or three sections and exposing 1-3 brown, shiny seeds, each about 1" wide.
Bark	Tight and smooth on young trees, brown to gray, developing thin scales on older trunks that flake off.
Wood	Wood is light, soft and weak, and decays rapidly when exposed. It has been used for woodenware, artificial limbs, paper pulp, lumber, and fuel.
Resident Camp	Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Scaly Leaves

Ashe Juniper <i>Juniperus ashei</i> 	Tree Description	A shrub or small to medium-sized tree, to 30 feet tall and a trunk to 16" in diameter, usually with forks or branches very close to the ground forming a dense, dark green, conical crown of foliage.
	Site Description	The common juniper throughout Central Texas. This tree often forms extensive low forests or dense "cedar breaks" on the limestone hills and slopes of the Hill Country and the Edwards Plateau. Considered an invasive weed species over much of its range.
	Leaf	Scale-like, dark green, blunt pointed, and fringed with minute teeth. On vigorous young plants the leaves are sharp pointed and longer, up to 0.5" long. Evergreen.
	Flower	Male and female cones on separate trees; male conelets oblong, very small, at the tips of branchlets; female cones oval, inconspicuous.
	Fruit	On the female trees, a round, dark blue, berry-like cone that is covered with a glaucous bloom; it has a thin, pleasant-scented, sweet flesh, enclosing 1 or 2 seeds, and ripens in one season.
	Bark	Reddish-brown and peeling into long strips; developing shallow fissures on old trunks.
	Wood	Light, hard, light brown, close-grained but weak, the wood is extensively used for fence posts and fuel wood.
	Resident Camp	Camp Constantin and Camp James Ray

Eastern Redcedar <i>Juniperus virginiana</i> var. <i>virginiana</i> 	Tree Description	A large tree to 50 feet tall, with a straight, fluted trunk 12" to 24" in diameter and a dense, narrow, conical or columnar crown of dark green foliage..
	Site Description	Scattered throughout East Texas, north and west to Wichita county and south to Colorado county, usually in fencerows, on gravelly ridges, or on dry, rocky hillsides.
	Leaf	Usually dark green, minute, and scale-like, clasping the twig in four ranks so that the twig appears square. The leaves can also be awl-shaped, sharp-pointed, and whitened on young growth or vigorous shoots. Evergreen.
	Flower	Male and female conelets are borne on separate trees in February or March, at the ends of the smallest twigs. When releasing their pollen, male trees appear golden-colored.
	Fruit	A dark blue, berry-like cone, 0.25" in diameter, maturing in one season, with a waxy coating, the sweet flesh enclosing one or two seeds.
	Bark	Thin, reddish-brown, turning ash-gray on exposed surfaces, and peeling off in long, shredding strips.
	Wood	Heartwood is distinctly red or red-brown, the sap-wood white, which makes for a very striking effect when finished for interior woodwork. The wood is aromatic, soft, strong, even-textured, and very durable in contact with the soil. It is used for posts, poles, woodenware, millwork, paneling, closets, chests, and pencils.
	Resident Camp	Camp Constantin, Camp James Ray, Camp Wisdom, and Clements Scout Ranch

Needles

Baldcypress

Taxodium distichum



Tree Description	One of the few deciduous conifers of North America, baldcypress is a large tree to over 100 feet tall and a straight trunk to 8 feet in diameter, with numerous ascending branches. Young trees display a narrow, conical outline, but old trees have a swollen, fluted base, a slowly tapering trunk, and a broad, open, flat top. In swamps they develop distinctive woody growths from the root system called "knees".
Site Description	In East Texas, west to the Nueces River and Central Texas, growing on riverbanks, bottomlands, and in swamps which are flooded for prolonged periods. Planted widely as a landscape tree.
Leaf	The slender, light green leaves are flattened, about 0.5" to 0.75" long, very narrow, and arranged in feather-like fashion along two sides of small branchlets 2" to 4" long, which are deciduous in the autumn with the leaves still attached. Flowering branchlets sometimes have awl-like leaves. Fall color is a striking copper or reddish-brown. Deciduous.
Flower	Male conelets or "flowers" arranged along a thread-like catkin 3" to 4" long, appearing in the spring; female conelets small and inconspicuous.
Fruit	A rounded cone about 1" in diameter, wrinkled into thick rough scales, greenish or with a waxy coating.
Bark	Silvery to cinnamon-red, with papery scales on branches but developing larger flat-topped ridges and numerous longitudinal fissures with age.
Wood	Light, soft, easily worked, with a light-colored sapwood and dark brown heartwood. It is particularly durable when exposed to soil and water, so cypress is in demand for exterior trim, boat and ship building, shingles, posts, poles, etc. Also in demand as a landscape tree.
Resident Camp	Camp James Ray and Clements Scout Ranch

Shortleaf Pine

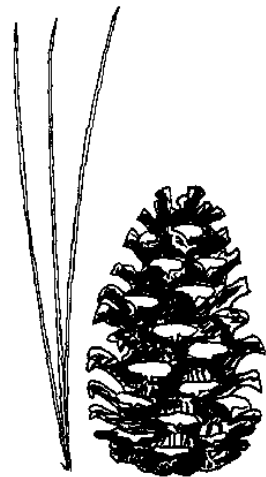
Pinus echinata



Tree Description	A tall, slender pine reaching a height of about 100 feet and trunk diameters to 2 feet or more, with a rather short, oval crown.
Site Description	Occurs on well-drained uplands in East Texas, growing in pure stands or mixed with hardwoods. It is most common in the hilly portions of Northeast Texas, but is also mixed with loblolly or longleaf pines in other parts of the Pineywoods.
Leaf	Needles in bundles of 2 (sometimes 3), 3" to 5" long, slender, flexible, and dark blue-green. Evergreen.
Flower	Male conelets appear in early spring as yellow-brown or purplish clusters, 0.75" long, at the ends of branchlets; female conelets are rose-colored, oval shaped, on a short stalk.
Fruit	A woody cone -- the smallest of the Texas pines -- 1.5" to 2.5" long, egg-shaped, with small, sharp prickles and a pair of winged seeds at the base of each scale. The cones are usually clustered, require two years to mature, and often persist on the twigs for several years.
Bark	Thick, brownish-red, and broken into irregular, flattened plates that are divided by dark fissures. The bark is thinner and lighter-colored than that of loblolly pine.
Wood	Wood is rather heavy and hard, yellow-brown or orange, fine-grained, and less resinous than that of the other important Southern pines. It is used for general construction, exterior and interior finishing, planing-mill products, veneer, cooperage, boxes, crates, agriculture implements, low-grade furniture, posts, poles, and woodenware.
Resident Camp	Camp James Ray and Clements Scout Ranch

Loblolly Pine

Pinus taeda



Tree Description	A large, fast-growing tree of forests and abandoned fields, reaching heights of 125 feet and a trunk to 4 feet in diameter, with a dense, rounded crown of dark, blue-green foliage.
Site Description	East Texas, ranging west to the "Lost Pine" region in the vicinity of Bastrop, Lee, and Fayette counties. Loblolly pine was most commonly found along banks of streams in virgin forests of Texas, but is now the dominant pine on all sites.
Leaf	The needles are borne in bundles of 3, mostly 5" to 10" long, and dull blue-green; in the spring, bright green clumps of needles grow at the end of branches and give the tree a luxuriant appearance. Evergreen.
Flower	Male conelets are yellow-green to purple, about 2" long, appearing in spring at the tips of branchlets; female cones are 0.5" long and yellowish.
Fruit	A woody, stalkless cone, 3" to 5" long, oval, reddish-brown, armed with prickles on the tips of the scales, and requiring two years to mature. The winged seeds are shed during the fall and early winter after the cones open fully.
Bark	Thick, dark red-brown to black, breaking into irregular, flaky plates and deep fissures.
Wood	The resinous wood is coarse-grained and there is marked contrast between the bands of springwood and summerwood. The most commercially valuable southern pine, the wood has a wide range of uses including lumber, cooperage, pulp, boxes, crossties, posts, and fuel.
Resident Camp	Camp James Ray and Clements Scout Ranch

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