Our Neighbors Near the Bridge

A nice way to be good guests in the home of the wildlife we are enjoying on our campus is to learn their names and something about the ecological systems in which they live. Most can be seen without even entering the preserve. How about accepting the challenge to know them well so we can respect their needs and introduce them to others! Some of the woody plants visible from the bridge are illustrated and described below.



Possumhaw (*Ilex decidua*) A tall deciduous tree with smooth, light gray bark. Leaves are somewhat paddle-shaped with rounded teeth. Some birds eat the fruits which are ripe during the fall migration.



Live Oak (Quercus fusiformis) This oak looks green year-round, keeping its leaves through the winter and shedding them in spring when new leaves emerge – a trait which gives it its name. It's one of the few oaks with un-lobed leaves. Acorns from all oaks are an important source of nutrition for wildlife.



Ashe juniper (Juniperus ashei)

- Often mistakenly called "cedar trees" by locals this evergreen tree usually has multiple stems. Female trees produce green berrylike fruits and male trees produce the pollen that causes "cedar fever."
- This tree provides important food and shelter for wildlife and fence posts for ranchers



Rattan (Berchemia scandens)

This climbing vine-like plant has a smooth, green stem. Its oval leaves that are 2.5 to 5cm long have very prominent veins.

Early Americans made furniture frames from these flexible stems that became stiff and strong when dried



Escarpment black cherry (Prunus serotina)

Somewhat rare, this canyon-dwelling tree has reddish-brown stems with gray or white stripes perpendicular to their axis. Leaves are oblong, toothed, and have a tapered base and longpointed tip.

Fruits are somewhat bitter, but used by wildlife

Cat briar (Smilax bona-nox)

A prickly vine that can form dense thickets that sometimes overtake trees, this tendril-bearing plant has stiff, shiny, triangular to heart-shaped leaves. Green stems as well as leaves are used for photosynthesis. New stem and tendril growth in the spring is tasty and nutritious and the leaves are highly favored by deer.



Heart-leaf ampelopsis (*Ampelopsis cordata*) A vine with tendrils this member of the grape family has heartshaped leaf blades up to 12cm long and 10cm wide with an extended tip and toothed margins. It sometimes overtakes trees and shades them from light needed for growth.

In summer tiny berries ripen and, though inedible by humans, are used by wildlife for food



Little (river) walnut (Juglans microcarpa)

This small tree is common in canyons, ravines and along streams. It has furrowed, gray bark on older stems and reddish bark on new growth. It has leaves compound leaves up to 30cm in length. As the Latin name indicates, its fruit is small, unlike its black walnut relative that has much larger fruits and leaves up to ½ meter in length.

Seeds are edible and the plant provides important habitat for wildlife.





Mexican plum (Prunus mexicana)

- A small tree in canyons and stream banks this tree's leaves up to 12cm long and 5cm wide distinguishes it from its relative the hog plum with leaves about half that size. The bark is whitish and often peeling.
- A member of the rose family, the fruits in the form of purplish red drupes provide important food for wildlife.



Cedar elm (Ulmus crassifolia)

- This tree has oval, scratchy leaves with tooth margins that can be up to 6cm long. Corky wings are sometimes found on young branches.
- One of the most common trees in the wooded upland community of Texas this tree's leaves are browsed by deer. It is very drought and disease resistant.

Eve's necklace (Sophora affinis)

Closely related to the Texas mountain laurel, this tall shrub or small tree has thin, scaly, reddish bark on older growth and smooth bark on newer growth. Pods have up to four or five seeds sharply separated from one another by constrictions in the pod. Leaves are compound with six to eight pair of leaflets having smooth margins. Seeds are reported to be poisonous to humans



Spanish grape (Vitis cinerea)

- Also known as winter grape this vine has leaves with a smooth, green lower surface that distinguishes it from the mustang grape that has a lower leaf surface covered with obvious whitish, fuzzy cobweb-like hairs. Leaves up to 12cm wide are heart-shaped and slightly wider than long.
- Small, edible purplish fruits in clusters ripen in late summer to fall and are an important food source for many wildlife species.



Agarito (Berberis trifoliolata)

This evergreen shrub has stiff, prickly leaves with three leaflets that distinguish it from its close relative, the Texas barberry, that may have several leaflets per leaf.

Fruits are edible red berries that are favored by wildlife



Flameleaf sumac (Rhus lanceolata)

Key to identifying this plant are the compound leaves up to 35cm long each having as many as 21 narrow, lance-shaped leaflets along a winged central axis. Its numerous white flowers produce clusters of red fruits that ripen in autumn.

This shrub is common especially in previously disturbed and abandoned areas.



Virginia creeper (Parthenocissus quinquefolia) This vine has leaves with five leaflets as the Latin name implies. One of the most common vines, it can grow along the ground or cling to trees with its highly touch-sensitive tendrils. It is common in riparian and shaded areas and can be very aggressive in using other plants for support as it grows toward light.



Sugar Hackberry (Celtis laevigata)

- This tree has tiny, round, reddish spherical fruits that are very sweet when they are ripe, hence the tree's name. It has smooth gray bark with warty growths on older stems.
- Though very drought and disease resistant, this tree often is heavily parasitized by mistletoe. It is one of the most common trees in central Texas and can adapt to a variety of habitats.



Poison ivy (Toxicodendron radicans)

- This somewhat woody plant is distinguished by having alternate, compound leaves with reddish petioles and three leaflets, the leaflet at the apex being symmetrical and the two on the sides being asymmetrical.
- Though many people are allergic to its oily secretions it is commonly browsed by goats and other animals. It can grow along the ground like a shrub or cling to trees like a vine, growing to the forest canopy.



White shin oak (Quercus sinuata)

- This tree with whitish to grayish flaking bark often has several stems rather than a single stem. It's leaves are only slightly lobed compared to many other oaks having deeper lobes.
- Acorns from this and other oaks are important food for wildlife. The tree grows in shallow soil especially along the rims of canyons and on hilltops.



Mexican Persimmon (*Diospyros texana*)

- This common shrub is identified by its very smooth trunk, kept that way by its thin bark peeling in rectangular flakes to expose a reddish color underneath. Firm textured leaves that are rounded or slightly notched at the tip are about 3cm long but may be up to 5cm. Leaf margins may be slightly rolled downward. Male and female flowers are whitish in color and are borne on separate trees.
- This bush grows slowly in poor soil and limestone hillsides and produces very hard wood. Female trees produce green marblesize fruits that turn sweet and black when they ripen in August and September.



Texas (Spanish) Oak (Quercus buckleyi)

- This oak has leaves with very deeply indented lobes with bristles on the tips. An oak in the red oak group, young leave are reddish when they first appear in the spring and the leaves turn reddish in autumn. It has tight, grayish bark.
- Along the limestone hilltops in this area this tree often forms a hardwood community along with live oak and ashe juniper. Like all oaks the acorns are used as food by wildlife.



American beauty berry (*Callicarpa americana*) One of the most beautiful shrubs in Central Texas this plant has opposite leaves and produces clusters of bright pink or purple fruits in the leaf axils in autumn. New branches also are produced in the leaf axils. Leaves may be up to 20cm long and are about twice as long as they are wide.

This shrub is found along canyon walls, wooded terraces along stream banks, and shaded, brushy areas.



Rough-leaf dogwood (*Cornus drummondii*) This small tree has opposite leaves with wavy margins and prominent veins that bend toward the tapering tip. The upper surface of the leaves is slightly rough to the touch and the lower surface is slightly velvety. Clusters of cream colored flowers with four petals appear in April and May. Individual trees often arise from underground rhizomes making them genetically identical.

This tree is very common along streams and canyon slopes.



Mexican buckeye (Ungnadia speciosa)

This small tree has compound leaves up to 30cm long with up to six paired leaflets and one terminal leaflet up to 10cm long. Leaves are toothed, have elongated tips, and a rounded base. Flowers are pink tinged with purple in clusters near the ends of branches. Fruits are 3-lobed capsules and seeds are black and shiny with a white spot.

This small tree is found on slopes near streams and canyons.

Twisted Leaf Yucca (Yucca rupicola)

- This plant in the lily family is distinguished from other yuccas by its twisted leaves that are fewer in number than many other yuccas. Inflorescences may be up to 2m tall with a large cluster of bell-shaped, white flowers that arise in April through June.
- This plant has an underground tuber that stores starch. It is the most common yucca in the Austin area.





Japanese privet (Ligustrum japonicum)

- This evergreen shrub has firm-textured, opposite leaves up to 8cm long and 5cm wide. They are pointed at the tips and elliptic in shape, bright green, smooth and glossy on the upper surface and duller green with a prominent yellow vein on the lower surface. It produces white flowers and dense clusters of dark blue berry-like fruits.
- This plant has escaped cultivation and is considered to be a nuisance because it spreads easily and dominates native habitats.
- This very aggressive twining plant can climb as high as 20m into trees and onto buildings. It has alternate, compound leaves with 9-21 leaflets. It produces a large raceme of purple flowers.
- This plant is not native to this area and because of its invasive nature is considered a nuisance in natural areas by biologists. If uncontrolled it can native plant species causing a serious habitat change that, in turn, results in loss of biodiversity.

Other Woody Plants

Following are some woody plants elsewhere in un-landscaped areas on campus, but outside the preserve.





Black Willow (Salix nigra)

This tree has separate sexes with male and female flowers borne of separate trees. Seeds are produced in fruits that resemble silky hairs and are dispersed by the wind. This species is easily identified by its long, narrow leaf blades up to 12cm long with finely serrated edges.

This fast-growing tree usually grows in or near water.

Cottonwood (*Populus deltoides*)

This tree is distinguished by its leaves having triangular blades with undulating margins, smooth surface, and an elongated tip. Because of their very long petioles the leaves flutter substantially when it's windy, producing a rustling sound. Female trees have pendulous flowers that produce seeds with cottony hairs.

This fast-growing tree usually grows in or near water.



Mustang grape (*Vitis mustangensis*)

This vine has very variable leaves – sometimes very deeply lobed and at other times oval with very little to no indentation. It is distinguished from other grapes in the area by the white, cottony hairs on the lower surface of somewhat concave leaves. This vine's clusters of dark purple fruits are eaten by wildlife.



Sycamore (Platanus occidentalis)

This tree has a whitish brown stem underneath papery, peeling bark. Leaves are wider than long, with pointed lobes. The bases of the petioles are expanded to cover the axilary bud. Fruits are spherical structures on long pedicels.

This tree is fast-growing and is usually found along streams.





Elbow bush (*Forestiera pubescens*)

- This shrub is easily identified by its leaves and twigs being opposite one another and at nearly right angles to the main stem. Leaf blades are about 3cm long, oval and fine-toothed. It produces numerous small, dark blue fruits in February and March.
- These shrubs can form dense thickets in both upland areas and near streams, providing habitat and shelter for wildlife.

Texas mountain laurel (Sophora secundiflora)

This is one of the most beautiful shrubs in the area. It has glossy, evergreen compound leaves with 6-8 pairs of leaflets and produces large clusters of purple bonnet-shaped flowers in the spring. Its hard pods can contain as many as 1-5 red, woody seeds.

This shrub grows on limestone slopes of canyons. A legume, it has nitrogen fixing capabilities that allow it to live in nitrogen-poor soils.



Honey mesquite (*Prosopis glandulosa*)

This torny tree is easily identified with its compound leaves divided into two main parts, each with 8-16 opposite pairs of leaflets. This tree is widespread in disturbed areas. Its small, hard seeds in long pods are an important source of food for rodents and other wildlife.



Poverty bush (Baccharis neglecta)

This small bush is known by several names including Roosevelt weed, groundsel and false willow. It has leaves about 7cm long, but only ½cm wide. Its branches are light brown in color and it is partially evergreen. Flowers on female trees produce silky plumes in autumn. As its Latin name implies, this bush is one of the first woody plants to appear neglected and disturbed areas such as fields no longer farmed.





Redbud (Cercis canadensis)

This small tree in the legume family has shiny, heart-shaped leaves that emerge after the colorful pink flowers are produced in March. Its fruit is a reddish brown flat pod. Rare away from cities and houses where it is widely used in

landscaping this tree has nitrogen-fixing capabilities.



Catclaw acacia (Acacia roemeriana)

- This small shrub has straight to slightly curved prickles. It's compound leaves have three or more pairs of leaflets each having several smaller pairs of leaflets of their own. Flowers are small, whitish, spherical puffballs and fruits are curved reddish pods.
- Mostly a west Texas plant its range extends to the drier habitats in Central Texas

Southern black-haw (Viburnum rufidulum)

This small tree has opposite leaves that are very finely toothed. Oval leaf blades are about 8cm long and petioles have very tiny reddish hairs. White flowers appear in March and clusters of 1cm long purplish cherry-like fruits appear in summer.



Wand butterfly bush (Buddleja racemosa)

- This low growing shrub often has multiple stems emerging from the ground. Its opposite, triangular leaves are coarse textured, toothed and variable in size.
- Frequently found growing from cracks in limestone rocks it is a very drought tolerant plant.



Texas ash (*Fraxinus texensis*)

This small tree is identified by its compound, opposite leaves each usually having five to seven leaflets and plumes of winged fruits each containing a single seed at the end of the wing. Old stems have rough bark while younger stems have smoother, gray bark. This tree usually is found on hillsides and canyon walls.



Chinaberry (Melia azadarach)

- This tree has smooth, reddish bark with white spots. It has compound leaves at least 30cm long with leaflets divided into three to five still smaller leaflets with toothed margins and pointed tips. It has large clusters of purple and white flowers that produce spherical berry-like fruits in summer
- Naturalized into many environments in our area this aggressive tree from India should be avoided as a landscape plant by environmentally conscious homeowners.



Japanese honeysuckle (Lonicera japonica)

This vine is distinguished by its opposite oblong leaves with smooth margins and a sharp, pointed tip. Elongated white to yellow fragrant flowers that appear to have two lips at the tip emerge in pairs along the leaf nodes.

Naturalized from Japan into our native environments, especially in moist areas, this vine is a nuisance in many areas and should be controlled since it climbs onto native vegetation and shades it.



Chinese tallow (Sapium sebiferum)

- This fast growing tree is a popular ornamental. Leaves have elongated petioles and the leaf tips are drawn out to a narrow point. It produces spikes of small, yellowish flowers. Fruits are capsules with three seed compartments.
- This exotic from China is one of the most invasive plants in Texas that has altered habitats causing major loss in biodiversity. Because it can adapt to most habitats it should be removed from where it has become established.

Acknowledgements

The photo of heart-leaf ampelopsis was taken from:

http://images.google.com/imgres?imgurl=http://www.cas.vanderbilt.edu/bioimages/a/wamco2-If38526.jpg&imgrefurl=http://www.cas.vanderbilt.edu/bioimages/species/amco2.htm&h=432&w=288&sz=46 &hl=en&start=3&tbnid=4Ky6AdmAiTcLGM:&tbnh=126&tbnw=84&prev=/images%3Fq%3Dheart%2Bleaf%2 Bampelopsis%26gbv%3D2%26hl%3Den

The photo of wisteria was taken from: http://www.nps.gov/plants/alien/fact/img/wist1.jpg

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Photos of all other plants were taken from the Central Texas Plant Image Gallery at <u>http://www.sbs.utexas.edu/bio406d/PlantPics_archive.htm</u>.

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