

# THE SMITH ROCK SHELTER TRAIL

This guide is meant to help direct you and your students along the Smith Rock Shelter Trail. The round trip hike to the rock shelter is about 0.8 miles. Feel free to continue along the trail beyond the rock shelter (#5), if time allows, and the trail will loop back to the visitor center parking lot (30-45 min). This guide is keyed to the numbered posts along the trail.

As you walk the trail, imagine that you are journeying back in time to the days of the Indians. The Tonkawas were the last Indian tribe to inhabit McKinney Falls. They were present until the 1800's. Tonkawas, like all Indians, were noted for respecting the land and reaping the benefits of nature. We will explore some of their uses of plants for food and medicine.

## **1. WAFER ASH**

The slender tree in front of the post is a Wafer Ash (*Ptelea trifoliata*). This type of tree is easily spotted by the group of three leaflets and light colored bark. Touch the bark and observe how the alternate gray and white bands are rough, then smooth. Why do you think it is called Wafer Ash? The Indians made a medicine from this tree to soothe the nose and to promote an appetite. The light yellow seed pods can also be used as a substitute for hops in brewing beer. Notice the dead tree behind the Wafer Ash or lying on the ground. How are dead trees beneficial to the forest? (provide homes for animals and enrich the soil when they decompose)



## **2. THICKETS**

Take a look into this thicket. Notice how dense it is? The density of the trees, vines and underbrush offers a great place for wildlife to seek refuge. Look for different species of birds which may be gathering berries or nursing their young in this area. What is the tree with leaves of three leaflets growing here? (Wafer Ash, but if it's growing close to the ground it's probably poison ivy)

## **\* TAKE THE LEFT FORK IN THE TRAIL AND PROCEED TOWARD THE BRIDGE**

## **3. OLD BALDY**

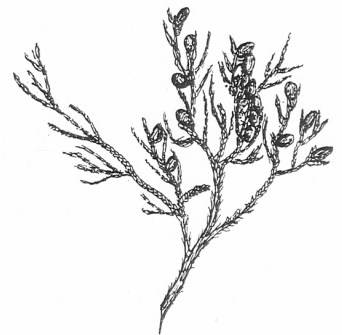
This large, beautiful tree growing to the left of the bridge is McKinney Falls' oldest Bald Cypress (*Taxodium distichum*) tree. It is over 500 years old, 5 feet in diameter, and about 60 feet high. The Bald Cypress is so named because it loses its leaves in the winter, unlike other conifer trees. The Tonkawa women probably admired this tree as they sat chewing on animal hides to soften them.

Look at the dry creek bed below Old Baldy. Do you think water still flows in this creek bed? (yes, when it rains) Is this a tributary to Onion Creek (yes).



## **4. JUNIPER**

The dense growing Juniper, or "Cedar" as Texans call it, is an evergreen tree with separate male and female cones. A tree produces either fruit (female) or pollen (male). Take a look around and see if you can tell the male and female tree apart. During winter, the male trees release profuse quantities of wind-borne pollen to fertilize the female flowers. Many people have an allergic reaction to the tiny pollen grains, resulting in what is commonly called "cedar fever". It is the male trees producing pollen that has given the junipers such a bad reputation. Take a deep sniff of the bark on a branch and see why the oil has long been used to provide a clean, fresh scent in homes. The strong oil also acted as a natural insect repellant when posts were made from the wood for fencing homesteads. A khaki-colored dye for wool was also obtained by boiling the bark, berries, and twigs.



**\* CROSS THE SECOND BRIDGE, FOLLOW THE ARROW TO THE ROCK SHELTER**

### **5. ROCK SHELTER**

This limestone overhang is the rockshelter used by some of the early inhabitants of Onion Creek. The erosion of the limestone is evidence that an ancestral stream to the modern Onion Creek once flowed at this elevation. Small groups of hunting and gathering peoples lived here intermittently from 500 A.D. until the late 1700s. The last known occupants were closely related to the Tonkawa tribe. Step alongside the rock wall and view the creek. Do you think it looked the same 300 years ago? (No, the creek bed was probably higher, but has slowly eroded away over time.) What is the shallow, bubbling part of the creek called? (a riffle, where the bugs live).



**\* END HERE AND TURN BACK OR CONTINUE ALONG THE TRAIL IF TIME ALLOWS**

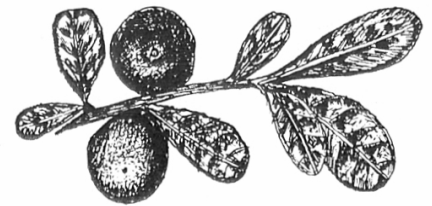
### **6. TEXAS RED OAK**

The Texas Red oak (*Quercus falcata*) or Spanish Oak can reach heights up to 75 feet. The red oaks are known for having a large quantity of tannic acid in their acorns, which gives the acorn a bitter taste. Settlers would wash the acorns with boiling water and then grind them to release the acid. This tannin was then used to prepare animal hides.



### **7. TEXAS PERSIMMON**

The Texas Persimmon (*Diospyros texana*) is a small tree scarcely seen taller than 10 ft. Small, dark green leaves and smooth, peeling bark identify the Texas Persimmon on your right. Touch the tree where the tree has naturally shed bark and feel how smooth it is. You can also touch the small, round galls created by insects on the leaves. The hard, green fruit (known as 'possum apples' since opossums loves to eat them) ripen into a soft black fruit that is edible and used for baking.



## **8. CHINABERRY**

The China Berry (*Melia azedarach*) tree, a native tree to Asia, was introduced to the United States as an ornamental tree and started growing wild in the Southern states. Take note of the tree's leaves. They are very different from the native trees of Texas.



## **9. MEADOW**

Take a look at this meadow. Notice there are cactus and yucca plants, but no trees. This may be due to the very shallow and dry soil causing a tree to have trouble taking root. This meadow is alive with wildflowers and native grasses. The petals from the Twisted-Leaf Yucca flower may be washed and boiled and taste like cabbage. Touch the strong, pointed leaves. Do you think the Indians would have used this plant for sewing by using strips of the leaves as thread and the end as a needle?



Twisted-Leaf Yucca

## **\* FOLLOW THE TRAIL TO THE RIGHT**

## **10. CEDAR ELM**

The Elm (*Ulmus crassifolia*) family has between 20 and 45 species worldwide. Six species are native to North America with four occurring in Texas. All species of elm in the U.S. are susceptible to the deadly Dutch Elm disease which attacks the vascular system of the tree. It is not yet epidemic in Texas, however areas of the disease have been found in East Texas.



## **11. PRICKLY PEAR**

The Prickly Pear (*Opuntia lindheimeri*) cacti produce several flowers that appear in an array of colors in late spring and early summer. The fruit and pads (flattened cacti stems) are both edible. Look for a white powdery substance on the pad which is actually a small beetle called a Conchineal bug. Native Americans and later pioneer settlers made a beautiful red dye from these insects, which was used to make body paint and lipstick.



## **12. DESERT CHRISTMAS CACTUS**

The Desert Christmas Cactus (*Opuntia Leptocaulis*) received its name because the green-colored fruits turn a very festive red color in December just in time for Christmas. Although the spines can spear people and livestock that venture too close, it provides significant food, protected nesting sites, and cover for a variety of wildlife. Native Americans gathered the fruits and ate them raw or cooked them into a jam.



## **13. no sign**

#### **14. PECAN**

The Pecan (*Carya illinoensis*) is native to most of East Texas. Pecan trees typically grow on their own in fertile river valleys of Texas where its taproot can reach the water tables. It is the fastest growing tree of the Hickory family, with a life span up to 300 years. The Pecan nut was a major source of food for the Indians. Did you also know that a dye ranging from brown to dark gray in color can be made by boiling the hulls for the nuts? Although the pecan is very useful, it is probably its great beauty that caused it to be named the state tree of Texas.



#### **15. MESQUITE**

The Mesquite (*Prosopis glandulosa*) tree grows up to 30 feet in height bearing twice pinnately compound leaves giving it a light appearance and providing great shade. Look up at the slender, apple-green leaves and sharp thorns. The Mesquite produces long seed pods whose flesh is quite sweet. Indians ground the seeds into meal to make cakes. Gum from the tree was eaten as is or boiled into candy.



Adapted from a pamphlet created by an Eagle Scout project by Anthony DeRose. 2001.