

Oak Savannah Trail

Oak Savannah Habitat Theme – The Oak Savannah Trail takes you past the Storybook Oak, into a shaded pine plantation, and meanders up a small ridge, crossing through a park like savannah, then wraps up back along Wells Lake. An oak savanna is a community of scattered oak trees, genus *Quercus*, above a layer of prairie grasses and forbs. The trees are spread out enough so that there is no closed canopy and the grasses and forbs receive plentiful amounts of sunlight. The savanna is a transition ecosystem between the tallgrass prairie and woodland environments, so it is an important habitat for both woodland and prairie animals and insect species. A savanna relies on periodic disturbances such as fire. Such disturbances prevent other trees from establishing themselves and turning the habitat into a forest community. Oak trees and prairie grasses are resilient to fire while the trees of a woodland community are not. Oak trees have extremely thick bark that protects them from fire, and prairie grasses have evolved to thrive after a fire. Therefore, fire allows the oaks and grasses a competitive advantage over other trees that may try to invade the savanna. Without fire, tree saplings begin to grow in the savanna and are able to take over, shading out and eliminating the grass and forb species. Soon, where there used to be an oak savanna, there is now a woodland habitat. Oak savannas have become practically extinct because European settlers suppressed natural fire cycles and the fires set by Native Americans. Farming and development has also helped obliterate the oak savanna ecosystem. Oak savannas are important because they are beautiful, dynamic environments with diverse plants and animals that have evolved complex relationships over time. Since savannas are transitions from prairie to woodland, they have extremely high diversity in flora and fauna. Diversity is a measure of health and stability, so it is important that habitats with diverse native plants and animals exist. The descriptions below are based on if you were taking the trail counterclockwise, left to right.

Wetland Area / Older Trees / Maple – The Janet Huckabee Arkansas River Valley Nature Center property really has a huge variety of habitats

for less than 200 acres of land. Already we've hiked through an open field, into an oak hickory forest, and now we are on the edge of a wetland area. The Beaver Creek Trail, which leads off this path, can take you around this wetland environment more closely.

Honey Locust – This is a deciduous tree native to eastern North America. It is mostly found in the moist soil of river valleys, such as the Arkansas River Valley. It can reach a height of 66–100 feet, with fast growth. They are relatively short-lived, however, living about 120 years. The fruit is a flat legume (pod) that matures between September and October. The pods are generally between 15–20 cm long. The pulp on the insides of the pods is edible and sweet; it should not be confused with Black locust, which is toxic. The seeds are dispersed by grazing herbivores, which eat the pod pulp and then excrete the seeds in their droppings; the animal's digestive system assists in breaking down the hard seed coat, making germination easier. Honey locusts commonly have thorns 10–20 cm long growing out of the branches; these may be single, or branched into several points, and commonly form into dense clusters. It has been suggested that these thorns evolved to protect the trees from now-extinct large animals (which may also have been involved in seed dispersal).. Despite its name, Honey locust is not a significant honey plant, while Black locust honey is prized. The name derives instead from the sweet taste of the legume pulp.

Lespedeza – this is a non-native, invasive species of grass that has, in some cases, nearly overtaken native grasses and plants. It was named after the Spanish governor of Florida who aided the French Botanist Andre Michaux. Michaux lived in America for 10 years and wrote much about American plants. Lespedeza was discovered in Monticello Georgia in 1846, but thought to have originated in Japan. Called Japan Clover and later just "Lespedeza", it spread throughout the southern states in late 1800's. Often it has been planted and used for hay and forage and for soil improvements (helps prevent erosion). Lespedeza is very beneficial in preventing erosion, but is also negative, because it is an invasive species. An invasive species is a species defined as introduced species or non-indigenous species. Invasive species can alter

ecological relationships among native species and can affect ecosystem function, economic value of ecosystems, and human health. A species is regarded as *invasive* if it has been introduced by human action to a location, area, or region where it did not previously occur naturally (i.e., is not native), becomes capable of establishing a breeding population in the new location without further intervention by humans, and spreads widely throughout the new location. In the Oak Savannah it has taken over some of the former grassland or savannah areas.

Lichens – Consist of a symbiotic relationship between a fungus and an algae. In many cases the fungus and the alga which together make the lichen may each be found living in nature without its partner, but many other lichens include a fungus which cannot survive on its own -- it has become dependent on its algal partner for survival. In all cases though, the appearance of the fungus in the lichen is quite different from its morphology as a separately growing individual. The true identity of lichens as **symbiotic** associations of two different organisms was first proposed by Beatrix Potter, who is best remembered for her children's books about Peter Rabbit. In addition to her books, she spent time studying and drawing lichens. Her illustrations are still appreciated for their detailed and accurate portrayal of the delicate beauty of these bizarre organisms.

True Oak Savannah – see info about Oak Savannah above.

Privet – This is an invasive species of plant, not native to our area. It's damaging to the Oak Savannah environment because privet plants can dominate the "understory". The privet outcompetes native tree species like the oaks. It also shades out the savannah floor and prevents native grasses and herbaceous plants and wildflowers from thriving. How to control privet? It's nearly impossible. We are hesitant to use the broadcast application of herbicide in this area to control privet due to the effect that spray drift may have on other plants. Spray drift also poses potential hazards to aquatic animals, especially amphibians and fish

inhabiting adjacent wetlands. Physically removing the plant can become a tiresome and nearly impossible task. Fire seems to be the best long term prevention for the oak savannah habitat. While we view the privet plant as invasive and not useful, it can be somewhat valuable to animals. The fruits, borne in clusters, are small purple to black drupes, [poisonous](#) for man but readily eaten by many birds. In favorable growing conditions, individual shrubs may produce thousands of fruits. Privet is used as a food plant by the [larvae](#) of some [Lepidoptera](#) species as well. However, the disadvantages far outweigh the benefits.

Osage Orange / Homestead / History – a good spot to discuss the fact that prior to this site becoming Fort Chaffee, it was farmland for many families, and evidence of their homesteads can be seen. Often it is in the form of rocks that have been rearranged, or in daffodils blooming in spring, where the homesteaders planted the bulbs.

Woodrat Nest – These rats are a medium-sized rodent with prominent ears, bulging black eyes, and moderately to well-haired tail which is less than half the length of the animal. The hair on the tail is often too fine to see. It's color is brownish-gray mixed with black on top, lighter brown on sides, throat, and belly. The tail is blackish-brown above and white below. Eastern wood rats are found in rocky, timbered regions, and occasionally in swampy or open lands. They usually build nests in crevices or caves in limestone bluffs or outcroppings, but occasionally nest in piles of brush. On our site, they are common in brushpiles at the bottom of trees. They are often called pack rats because they pick up shiny objects and carry them to their nest, and will often trade one item for another. They also use latrines (bathroom sites)! Wood rats are nocturnal and feed on a wide variety of plants. An important prey species, but not a pest species.

Open Area near Wells Lake – Wells Lake is a twelve acre man-made lake. It was built in the 1940s. Its purpose was to collect water needed during the construction of Fort Chaffee. This type of lake is called an impoundment. Visitors of all ages are welcome to fish in Wells Lake. Even novices can enjoy this sport. Give it a try! Poles and tackle boxes

are available as loaners. You will need to supply the bait. Largemouth bass are one of the most sought after freshwater game fish in the U.S. These bass are found in nearly all Arkansas waters. Adult largemouth bass eat mostly fish, crayfish, and insects. They can be caught with a variety of natural and artificial baits. The state record for largemouth bass stands at over sixteen pounds, but one to three-pounders are the most common catch. Channel catfish are the most widespread and plentiful catfish in Arkansas. They do extremely well in lakes and ponds. Channel cats can weigh up to thirty pounds. These bottom dwellers eat fish, insects, mollusks, crayfish, and sometimes plants and debris. Some of the best baits for catching channel catfish are chicken livers, earthworms, and minnows. Like the blue catfish, channel catfish have a deeply forked tail, but channel cats are smaller and less hump-backed than blue cats. Redear sunfish often weigh one pound or more. These spunky fighters are bottom feeders who prefer deep water. Redear do better in lakes with vegetation because of the normally abundant aquatic insects available. Redear are often found in submerged log piles along dams and shoreline. You can catch these fish with either live bait – they prefer worms to crickets - or with tiny artificial baits. Redear sunfish get their name from their red-tipped ear flaps. Bluegill are small fish and plentiful, occurring throughout Arkansas. Bluegill average weights are less than half a pound although the state record is over 3 pounds. Bluegills will take live bait such as worms or crickets, or tiny artificial. Bluegills are named for the bright blue gill covers and chin of breeding males. Rainbow Trout. No trout are native to Arkansas, but millions are stocked today in colder waters. Rainbows are the most common trout stocked in Arkansas. They may reach over 15 pounds, but one-pounders are more common. They have pinkish stripes running along their sides. They can be taken with artificial, as well as with baits such as canned corn, nightcrawlers, crayfish, and even cheese balls. These are stocked annually, usually in February, in Wells Lake.