

## The Occurrence of Persimmon and Buckeye in The Wichita Mountains Wildlife Refuge

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Blair and Hubbell (1938) have described well the mesophytic forest that borders the streams of the more enclosed valleys of the Wichita Mountains of Comanche County in southwestern Oklahoma. They state, "This forest is best developed in the ravines and canyons, the trees in such protected sites being larger and forming a denser canopy, and the proportion of eastern plant species being greater." It is in these tree-covered lowlands that a few specimens of persimmon (*Diospyros virginiana*) and Ohio buckeye [*Aesculus glabra* Willd. var. *arguta* (Buckl.) Robins.] have been found. These plants constitute a minor part of this streamside flora that is dominated by spotted oak (*Quercus shumardii*), black walnut (*Juglans nigra*), American elm (*Ulmus americana*), white ash (*Fraxinus americana*), and other trees. It is noted that the most extensive of the isolated populations of big-toothed maple (*Acer grandidentatum*), found in the Wichita Mountains, also occur in these localities of deeper soils and more available moisture. The average annual rainfall in these mountains is 30.42 inches (50-year record) with annual extremes of 15.07 and 57.51 inches. *Diospyros* and *Aesculus* were not reported by Eskew (1938); or Munns (1938). The present records, therefore, constitute a westward range extension for these eastern species. Duck and Fletcher, et al (1943) on their game type map of Oklahoma, clearly show that the post oak-black-jack forest type of the Wichita Mountains, of which the persimmon and the horse-chestnut are minor species in the canyon subtype, forms an island of timber surrounded by grassland associations. The uniqueness of this rugged and partially-forested mountain mass surrounded by a sea of grass caused Blair and Hubbell (ibid.) to designate it as the Wichita Biotic District, one of eleven in the State of Oklahoma.

The presence of both of the topic species has been locally recognized for many years. The locations herein recorded are all within the exterior boundaries of the Wichita Mountains Wildlife Refuge, which is administered by the Fish and Wildlife Service, U. S. Department of the Interior. Two 1939 persimmon specimens are in the refuge herbarium. One of them was collected in Hollis Canyon by Charles H. Rouse; the other was found by Frank B. McMurry below Comanche Lake at the old hydro-electric plant. A small grove of these trees is present on the west bank of Crater Creek near the southern refuge boundary immediately east of the Cache entrance gate. Other groups of persimmon can be found in favored bottomland localities.

The buckeye specimens from which leaf and twig collections were made are growing adjacent to Cedar Creek where it crosses a truck trail on the northwestern approaches to Mt. Scott. The two plants are in a heavily shaded area, and are under four feet in height. A small group of these shrubs has been reported on Headquarters Creek above Sunset Campground. This association, however, has not as yet been located. Careful search will doubtless reveal other plants of this locally rare species.

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### LITERATURE CITED

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