

## **SYLAMORE EXPERIMENTAL FOREST**

Short history/brief introduction: Located in Stone County, Arkansas near the community of Mountain View, the Sylamore Experimental Forest (SEF) was the site of many early research projects pertaining to the management of upland hardwood forests. The SEF consists of approximately 4,292 acres and is surrounded by Forest Service roads. The area is dominated by oak-hickory stands interspersed with pine. The forest has a number of intermittent streams, and was the location of numerous wildlife studies, notably two 1-square-mile pens for deer studies. Currently, research activities on the SEF are coordinated by SRS-4106, Southern Research Station; administratively, the SEF is identified as Compartment 102 on the Sylamore RD of the Ozark-St. Francis NF, which coordinates management activities there in support of research.

Climate: The climate of the SEF is characterized by relatively cool winters, warm to hot summers, and fairly abundant rainfall. Average daily maximum temperature is 91 degrees F in July and 46 degrees in January; minimum temperatures are 67 degrees in July and 24 degrees in January. Annual rainfall is 48 inches and is fairly equally distributed throughout the year.

Soils: Soils are oriented by topographic position. The Moko-Estate complex are shallow soils with a high stone content that occur along drainages. The Clarksville very cherty silt loam is the most widely distributed soil series. This excessively well-drained soil mainly occurs on side slope positions; it is low in both organic matter and fertility. The ridge tops are dominated by the Clarksville-Nixa complex, which are excessively to moderately well drained soils with low fertility. Site index for upland oaks ranges from 45 to 75 feet at 50 years.

Vegetation type(s): Most of the area is mature upland hardwoods stands dominated by the oaks. Some areas, especially the south facing slopes, have a significant component of shortleaf pine.

Long-term data bases: None

Research – past and current:

1. Early research was directed toward the silviculture of upland hardwood stands and wildlife habitat.
2. Currently there are two cooperative studies on the SEF. The first Study is entitled “The origin and development of an oak forest in northern Arkansas”, which studies the patterns of establishment and development in oak-dominated stands. The second study is “Silvicultural research on the Sylamore Experimental Forest”, which is a thorough forest inventory of the SEF.

Major research accomplishments and impacts on management: Some of the early practices for managing upland hardwood stands were developed and tested on the Sylamore, and the effects on wildlife habitat were evaluated.

Collaborators: The Sylamore is part of an Arkansas Fish and Game Wildlife Management Area.

Research opportunities:

1. All aspects of the management of upland hardwood stands.
2. The impacts of silvicultural practices on non-timber resources such as soils, wildlife, and visual properties.

Facilities, contact address, website address, location: Access to the SEF, as through most of the Ozarks, is moderately difficult. There is an old house, still habitable, and several buildings used primarily for equipment storage located in sec. 20, T.16 N., R. 11 W.; access to the SEF is from Forest Service Road 1113, north of Mountain View off State Highway 5.

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