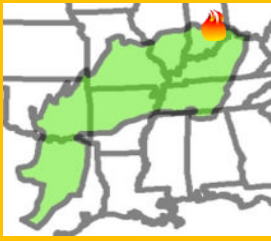


Clark State Forest

FIRE SCIENCE HOT SPOTS



In this feature, we bring into focus fire science on-the-ground

Within the 25,600-acre [Clark State Forest \(CSF\)](#), the Indiana Department of Natural Resources (IDNR), [Division of Forestry](#) employs prescribed fire on 170 acres to support long-term forest management objectives. CSF, like many forests across the region, has undergone mesophication, with historically oak-hickory-dominated stands having increased tree regeneration of shade-tolerant species such as sugar maple and American beech. By integrating prescribed burns with traditional forestry practices (including shelterwood harvests and midstory thinnings), IDNR is working to counter this trend and promote oak regeneration and recruitment. Low-intensity prescribed fires on a 3- to 5-year return interval, primarily during the dormant season, are used to minimize overstory tree loss and reduce impacts to snags and legacy trees which provide critical wildlife habitat (top-right image below). As successful oak regeneration accumulates in the understory, the fire return interval will be extended to 5-15 years to allow oak saplings time to recruit into the midstory. CFS serves as a valuable demonstration area for land managers and private landowners of prescribed fire management to restore oak-hickory ecosystems of the region.

DNR
Indiana Department
of Natural Resources

Forestry



Top-left: Prescribed fire and a shelterwood harvest have resulted in extensive successful oak regeneration, shown here, two years after post-harvest burning. **Top-right inset:** Forest stands with oak-dominated overstories have the capacity to produce abundant acorn crops and seedlings once appropriate growing conditions are restored. **Top-right:** CSF's role as a demonstration site for fire management in southern Indiana was recently enhanced with the addition of an interpretive trail highlighting the importance of fire in maintaining healthy, resilient oak-hickory woodlands. **Bottom-left:** A recent field tour highlighting the effects of combining selective harvest,

midstory removal, and prescribed fire to limit the encroachment of shade-tolerant tree species. **Bottom-middle and bottom-right:** A side-by-side comparison illustrating prescribed fire management outcomes as canopy cover is reduced and ground vegetation—including oak seedlings—begins to develop in areas previously dominated by shaded leaf litter. Click on each photo for a full-size downloadable image or view all [HERE](#). Photo credits: top-left by Dustin Alwine (IDNR), top-right by Elena Crosier (IDNR), top-right inset by Megan Crecelius (IDNR), all others by Oak Woodlands & Forests Fire Consortium.

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