# Restoring an Oak Savanna in the Upper Mississippi Valley Zinc-Lead District[1]

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**Abstract**: By 1829, southwestern Wisconsin was producing over 5,000 tons of lead each year. Prior to this mining boom, the Upper Mississippi Valley zinc-lead district was mostly oak savanna with a few scattered prairies and forested areas. Oak savannas are now one of the rarest plant communities in the upper Midwest with less than 500 acres remaining. The primary goal of this project is to restore a small, 3-acre oak savanna community on a remnant savanna hillside on the campus of the University Wisconsin-Platteville. As a secondary goal, the restored oak savanna will serve as a demonstration project for the region. Prior to restoration efforts, which began in late winter 2017, the site was heavily invaded by hybridized bush honeysuckle (*Lonicera x bella*). The honeysuckle formed a monoculture in the understory and prevented oak regeneration. Furthermore, due to fire suppression, the overstory canopy was dominated by immature black walnut trees (*Juglans nigra*). To complete the restoration, a plot was established approximately one acre in size containing a cluster of oak trees (*Quercus macrocarpa* and *Q. alba*), as well as a canopy of black walnut and a bush honeysuckle understory. Both black walnut and bush honeysuckle were cut and stumps were treated with a mixed solution of 5.4% picloram and 20.9% 2,4-dichlorophenoxyacetic acid (Tordon RTU) in the one-acre area while the remaining two acres serve as a control. Bare soil left after removing the bush honeysuckle was frost seeded with native plants. Preliminary vegetation surveys show that understory species richness increased in the treated area.

Additional Key Words: Invasive and fire suppression.

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3. The site is located at 42° 42’ 38” N: 90° 29’ 22” On University of Wisconsin-Platteville property.