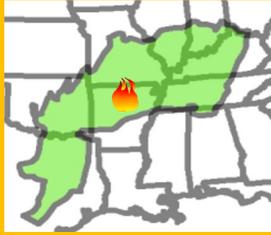


# Optimus Glade and Woodland Restoration Area

## FIRE SCIENCE HOT SPOTS



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

Management efforts are ongoing at the Optimus Glade and Woodland Restoration area (Ozark-St. Francis National Forest (OSFNF), Sylamore Ranger District), within the White River Hills ecoregion, as part of a partnership including OSFNF, The Nature Conservancy, Arkansas Game and Fish Commission, National Wild Turkey Federation, and the University of Arkansas. Restoration work began at this 1,800 acre landscape-scale restoration project in 2012, management activities have included pre-commercial and commercial forest thinning, recurring prescribed fire, mastication, and non-native plant treatments. Certain rare plants and animals require the high light levels and temperatures that occur on these restored glades, including Ozark calamint (*Calamintha arkansana*, inset top-right image below) and the eastern collared lizard (bottom-right and inset). A top predator adapted to these open, dry, rocky sites, the eastern collared lizard is a sensitive indicator of glade ecosystem function, and requires high-temperature conditions to facilitate digestion and breeding.



Historically, fire maintained the prairie-like ecosystems in these sandstone glades, which typically burned at 3-4 year intervals. Glade-mapping research identified 326 acres of potential glade habitat within this area, most of which resembled vegetation conditions shown in the top-left image prior to restoration. Commercial timber harvests, mastication, and cut-and-leave thinnings on the glades, and surrounding woodlands (target basal area: 50-70 feet<sup>2</sup>/acre), have resulted in open conditions shown in the top-right and lower-left images. Open-woodlands (i.e., inset bottom-left) serve as vital

corridors for eastern collared lizards to travel between glades. Closed-canopy conditions (top-left image) between glades as little as 50 m wide are migration barriers for these lizards, resulting in declines in genetic diversity and population levels (read more on this topic, here: [RB-22](#)). Click on each photo for a full-size downloadable image, or view all [HERE](#). Photo credits - Bottom-right and inset, top-right inset: Denise Vaughn, all others USDA Forest Service.

