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Plant a Tree: 9.22.2008

2008



[ENO-Environment Online](#), a global virtual school for environmental awareness and sustainable development, is giving everyone a chance to plant a tree on the same day, to celebrate the autumnal equinox. Trees will be planted at midday on September 22 in every corner of the world. The first trees will be planted at noon in Oceania. Following the sun, new trees will be put to earth in Asia, Europe and Africa. Finally this chain of trees will reach the Americas.

The autumnal equinox, when the length of daylight is approximately the same worldwide, was chosen as a symbol for international cooperation for the natural world. On that day, the center of the sun will spend a nearly equal amount of time above and below the horizon, and night and day will be of nearly the same length. Last year one thousand schools in 102 countries planted thousands of trees during ENO's Plant a Tree Day. ENO is an international network of schools administered by the city of Joensuu, Finland.

- [Jane Jones-Schulz](#)

Trade some "screen" time for some "green" time

Discover and reconnect with nature with the first annual Make Tracks! Family Trail Weekend, October 11-13, Columbus Day Weekend. The [Make Tracks!](#) Website provides a list of supplies, tips for family-friendly activities, and a link to [NatureFind](#), a terrific database to locate the best nearby trails, walking paths and parks, just by entering your zip code. With today's high gas prices discovering nature nearby has even more benefits.

Haven't hiked much, or ever? No problem, you don't need to be an expert or in top physical condition to enjoy the outdoors. Have small children? Grab the stroller. Your outing can be as long or as short as you want. Be part of a growing movement to rediscover the outdoors – and realize the benefits of stepping away from the computer or TV or video game and breathing some fresh air while experiencing the wonders of nature.

Make Tracks! is part of National Wildlife Federation's Green Hour campaign which urges parents to give their kids a daily dose of nature – unstructured time for children to leave homework, piano lessons and soccer practice behind to play outside and discover the freedom it provides. This time can improve both physical and mental health for adults and kids alike.



Put your best foot forward this Columbus Day and visit maketracks.org. You'll even find some ANHC natural areas listed there, or check out the [natural areas trail](#) section of our website.

- [Jane Jones-Schulz](#)

Breaking ground: Grand Prairie restoration

Prior to European settlement, the [Grand Prairie ecosystem](#) covered approximately 900,000 acres, with 400,000 acres consisting of tallgrass prairie. During the early 20th century, much of the land was lost as it was converted to other uses, primarily agriculture. Today, there are fewer than 600 acres of tallgrass prairie remaining. This large scale loss of habitat resulted in immense negative impacts on grassland animal species in this ecosystem. The greater-prairie chicken (*Tympanuchus cupido*) was once so common in the region that hunters would travel from as far away as Illinois and the eastern United States to pursue them. However, due to loss of critical habitat, this species has been eliminated from the Grand Prairie.



The Grand Prairie also supported a large numbers of other grassland birds and was an important area for migrating shorebirds, breeding water birds, and wintering songbirds. The prairie lands were interspersed with seasonal wetlands, providing prime foraging habitat for shorebirds, herons and rails. Insects dependent upon prairies have also declined as a result of habitat loss in the Grand Prairie. Prairie mole crickets (*Gryllotalpa major*; at right) are only found in tallgrass prairies and today are limited to a handful of small isolated patches of prairie across the Grand Prairie region.



[Downs Prairie Natural Area](#) is a 24 acre tallgrass prairie remnant located just east of Hazen in Prairie County. The area supports several animal species of conservation concern including the prairie mole crickets, wintering sedge wrens (*Cistothorus platensis*), LeConte's sparrows (*Ammodramus leconteii*), and five-spotted red milkweed beetles (*Tetrapoes quinquemaculatus*).

An abandoned railroad right-of-way of the former Rock Island Railroad bisects the prairie and has become overrun with non-native vegetation. The former rail path occupies approximately five acres and facilitates the spread of invasive species into the adjacent prairie. This causes fragmentation within the natural area, inhibiting the movement of some rare species such as the prairie mole cricket. To address these issues, the ANHC secured a grant award to restore the abandoned railroad bed at Downs Prairie. The project is funded through the [State Wildlife Grant Program](#) administered by the [Arkansas Game and Fish Commission](#) (AGFC).

For this project, the ANHC, AGFC, and Arkansas Forestry Commission (AFC) joined forces and coordinated restoration activities to ensure the success of this two year venture. Staff from the ANHC conducted a prescribed burn on the restoration area in February 2008, and the AFC is removing large woody vegetation from the railroad bed. The AGFC



will harvest native prairie seed from Downs and [Railroad Prairie Natural Areas](#) to preserve the local genotype, prepare the restoration site to receive seed, and plant the area with native seed. Grassland bird and prairie mole cricket surveys will help document accomplishments of the project.

Because so much tallgrass prairie habitat has been lost in eastern Arkansas, it is imperative that we restore remaining habitat in a manner that can optimize breeding and wintering opportunities for grassland birds and provide quality habitat for insect populations. Restoring the abandoned railroad bed in Downs Prairie will increase the productivity of the natural area for rare species by providing additional foraging and nesting habitat and will increase connectivity by eliminating fragmentation within the natural area.

- [Jennifer Akin](#) and [Bill Holimon](#)

Slimy in the flatwoods

One of the newest additions to the Arkansas Natural Heritage Commission (ANHC's) System of Natural Areas, [Moro Big Pine Natural Area-Wildlife Management Area](#) in Calhoun County, protects several diverse and unique community types. The area is home to loblolly-shortleaf pine flatwoods, one of the least-protected plant communities in the nation, according to the U.S. Forest Service. The site also supports approximately two dozen [Red-cockaded Woodpeckers](#) (RCW), a cardinal-sized bird that's been on the U.S. Endangered Species List since 1970.



Moro Big Pine Natural Area-Wildlife Management Area is a "working forest" in which a balance of ecological and timber management techniques are implemented to maintain healthy ecosystems that support numerous plant and animal species. The ANHC monitors this area for species of special concern and works with [Potlatch](#), [The Nature Conservancy](#), and the [Arkansas Game and Fish Commission](#) to manage the area to protect sensitive species.

The same management techniques, such as prescribed fire, that benefit RCWs also benefit a variety of creatures that inhabit smaller natural communities found on the area, such as bayheads (forested seeps with diverse ground cover), bottomland hardwood forests, and cypress sloughs. These habitats share the characteristic of being wet through part of the year and are important breeding sites for several species of amphibians.

A cooperative ANHC/Potlatch survey resulted in the discovery of Louisiana slimy salamanders (*Plethodon kisatchie*) at Moro Big Pine. This salamander is a species of conservation concern with a very restricted range in Arkansas, only occurring with any abundance in Bradley and Calhoun Counties. Its breeding season generally begins in early fall. The Louisiana slimy salamanders earned its name through the species ability to secrete large amounts of a sticky glue-like substance from skin glands if disturbed.



Ricky O'Neil, a Senior Resource Forester for Potlatch, is conducting research on the effects of various timber management practices on amphibians and reptiles. His research includes the use of live traps and sample plots that are positioned in various habitat types within the natural area. Monitoring of these plots provides valuable data on the amphibians and reptiles. It also helps to support research evaluating the concurrent

benefits of new management to overall species diversity. This, in turn, will help guide future management decisions for the forest.

- Tobin Fulmer

Tobin Fulmer is a former Stewardship Field Ecologist with the ANHC. He is now a biology teacher in the Arkadelphia School District.

Field Notes: Of glades and 'hoppers

Earlier this month, ANHC botanist [Theo Witsell](#) and I made a trip to Stone County to survey glades he had located in the Ozark National Forest. Glades – open, rocky areas dominated by herbaceous plants – often can be identified from aerial imagery as their treeless nature makes them stand out in forested landscapes. Theo found these glades as he searched Stone County for another rare Ozark natural community, sinkhole ponds.

Theo has developed a keen interest in glades as they are a rare, understudied Arkansas natural community type that often hosts populations of equally rare plants; sometimes rare insects as well (hence, my interest). Unfortunately, many of Arkansas's glades and adjacent woodlands have suffered from decades of degradation in the form of mining, overgrazing, trash dumping, and suppression of naturally occurring fires. Fire historically helped to limit the intrusion of woody plants into glades, particularly eastern red cedar (*Juniperus virginiana*). Today, many glades have been literally "choked to death" by invading woody vegetation.

Our visit to Stone County, near the White River, turned up good quality sandstone and dolomite glades. Scattered throughout the glade openings were eastern red cedar as well as the closely related Ashe's juniper (*Juniperus ashei*). Old man's beard, an epiphytic lichen with a habit similar to Spanish moss (*Tillandsia usneoides*), hung from their branches. The exposed bedrock was substantial in some locations, forming near pavement-like conditions. Grasses and forbs dominated in areas with accumulations of soil. Theo located a new record for prairie panic grass (*Panicum brachyanthum*) growing around the margins of the glade openings.



For my part, I hoped to locate new occurrences of two rare insects, the lichen grasshopper (*Trimerotropis saxatilis*) and large grassland tiger beetle (*Cicindela obsoleta vulturina*). I was lucky, finding both species in the glades we visited.

As its common name implies, the lichen grasshopper possesses camouflage that closely resembles the lichens that grow on exposed bedrock. This grasshopper is a glade-obligate species as individuals rarely move through forests with heavy canopies, instead requiring more open conditions for movement. Historically, large parts of the Ozark Mountains were typified by open woodlands, not the dense forests seen today. Fire helped to maintain open canopies and likely facilitated movement of lichen grasshoppers among glades.



While not a strict glade-obligate



Mexico and Texas as well as portions of Colorado and Arizona. Our population of large grassland tiger beetles is disjunct from the species primary range by several hundred miles. Like most other tiger beetles, this species is an active, ground-based hunter dependent on open areas. Given its preference for open habitats, coupled with its limited flight abilities, populations of this tiger beetle in Arkansas probably experience little movement among glades given the current dense forest conditions.

Today, partially as a result of fire suppression policies, most Ozark Mountain glades are essentially islands of open habitat surrounded by a sea of dense forests. It is likely, that without management, populations of lichen grasshoppers, large grassland tiger beetles, and other glade-dependent species could die off over time. Fortunately, the biodiversity value of glades is slowly being recognized by some public land managers and steps are currently being taken to reduce woody plant encroachment in these rare habitats by cutting cedars and conducting prescribed burns in glades and woodlands.

- [Michael D. Warriner](#)

Upcoming Events

September 17, 2008. Arkansas Natural Heritage Commission Meeting.

11:00 a.m., DAH Conference Room, Tower Building, 323 Center Street, Little Rock, Arkansas.

September 22, 2008. [Environment Online \(ENO\) Tree Planting Day.](#)

October 9-10, 2008. [Arkansas Entomological Society Annual Meeting.](#)

Fayetteville, Arkansas.

October 11-13, 2008. [Make Tracks! Family Trail Weekend.](#)

October 14-17, 2008. [35th Annual Natural Areas Conference.](#) Doubletree Hotel, Nashville, Tennessee.

October 24-26, 2008. [Arkansas Native Plant Society Fall Meeting.](#) Mammoth Spring, Arkansas.

November 17-20, 2008. [15th Biennial Southern Silvicultural Research Conference.](#) Hot Springs Convention Center, Hot Springs, Arkansas.

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