



Fire Learning Network Notes from the Field

Central Appalachians FLN Summer 2015 Update

Spring Burning

Although a slow and snowy start to spring dampened our hopes for a more productive spring burning season, with the collaborative spirit of the FLN, partners in the Heart of the Appalachians landscape (in Virginia and West Virginia) still achieved nearly 9,000 acres of controlled burns. Among the highlights was the 400-acre Summers Mountain burn in the Highland Wildlife Management Area. The Virginia Department of Game and Inland Fisheries (DGIF) teamed up with The Nature Conservancy, Wildland Restoration International and the USDA Forest Service to carry out this largest burn in DGIF history and the first in Virginia where Forest Service staff have burned on DGIF lands. The burn was a huge success due to enabling conditions set in place by the FLN—such as a new prescribed fire policy for DGIF and MOUs between all partners—that allowed all of these organizations to participate.

Partners in the Keystone Appalachians landscape (in Pennsylvania) conducted 9,300 acres of burning across Pennsylvania Game Commission, Fort Indiantown Gap, Pennsylvania Department of Conservation and Natural Resources (PADCNR) and Conservancy lands. Excellent cross-boundary coordination was evidenced by Conservancy staff from Maryland assisting the U.S. Fish & Wildlife Service and PADCNR with the Underwood Trail Burn near State College, while Conservancy staff from Pennsylvania were assisting the Pennsylvania Game Commission with another burn.

Western Wildfire Details

With the National Planning Level now at PL5, its highest level, and many western states under red flag warnings, many of our FLN partners have been deploying for wildfire details in the western part of the country. Staff from area forests and units of the USDA Forest Service and National Park Service as well as several Conservancy chapters are serving on wildfires in Alaska, California, Oregon, Washington and Wyoming.

Top: Tim SanJule of The Nature Conservancy keeps an eye on the Bear Loop prescribed burn in the Warm Springs Mountain Preserve.

Center, bottom: Staff from Virginia Department of Game and Inland Fisheries, The Nature Conservancy, Wildland Restoration International and the USDA Forest Service conducted the Summers Mountain prescribed burn in the Highland Wildlife Management Area.

Photos: TNC/Marek Smith; VA DGIF/AI Bourgeois



Monitoring Progress

The Heart of the Appalachians FLN Monitoring Working Group held its third annual Plant Identification and Protocol Refresher Workshop this year, in a new two-day format. Eighteen participants from the Conservancy, Forest Service and Virginia Department of Conservation and Recreation spent the first day at Hungry Mother State Park identifying plants, with a focus on ericaceous shrubs. The second part of the workshop consisted of a Forest Structure and Composition Protocol review and the installment of four new monitoring plots in the Huff Hollow burn unit on the Eastern Divide Ranger District of the Jefferson National Forest. The new workshop format allowed for plenty of identification practice and discussion and will better ensure consistency in data collection across the landscape.

In the Keystone Appalachians landscape, monitoring collaborations continue among the Pennsylvania Game Commission, Penn State University, Arcadia University and the Conservancy. They are working to identify ways to move forward on the pre/post-burn vegetation monitoring initiative that was started in 2013. Monitoring during burns is also being integrated, through use of FEMO-qualified personnel. This collaboration led to a Fire Monitoring Workshop this spring, sponsored by the Center for Landscape Dynamics at Penn State; this evolved to include several additional faculty (including social scientists) and staff from the Natural Resources Conservation Service, Western Pennsylvania Conservancy and the Fort Indiantown Gap military installation.

Training Highlights

A diverse group of prescribed fire practitioners gathered in the Sandhill and Piedmont regions of North Carolina in February for the second Prescribed Fire Training Exchange (TREN) held east of the Mississippi. TRENs were developed by the national Fire Learning Network, and provide wildland fire practitioners with training and learning opportunities while offering host units qualified personnel for complex burns. The North Carolina TREN was hosted by the Southern Blue Ridge FLN, North Carolina Prescribed Fire Council and their partners. Despite an unexpected amount of ice and freezing temperatures, more than 500 acres were treated during the event. Among the 40 participants advancing their skills there were representatives from the Central Appalachians FLN, including two employees from the Conservancy (Virginia and Maryland chapters) and one from the Forest Service (George Washington & Jefferson National Forests).



Top: Al Cire (Virginia Department of Conservation and Recreation) and John Moncure (USDA Forest Service) collect forest structure and composition measurements in the Huff Hollow burn unit on the Eastern Divide Ranger District of the Jefferson National Forest. *Photo:* TNC/Laurel Schablein

Bottom: Nikole Swaney (The Nature Conservancy) and Aaron Bennington (USDA Forest Service) participate in a FEMO module as part of the North Carolina TREN. *Photo:* TNC

News from Prescribed Fire Councils

The Pennsylvania Prescribed Fire Council held its annual meeting in mid-February. Having received 501(c)3 non-profit status, the council elected its first nine-member board of directors at this meeting. Presentations and discussions at the meeting highlighted how fire is being used for massasauga, oak and native grassland management, emerging smartphone apps, and how aerial ignition is being used in the Appalachians for effective burning of larger units.

On September 22, 2015, the Council will host a field tour to discuss prescribed fire and management of dry oak and oak-pine communities. Participants will discuss issues ranging from maintaining oak forests to restoring woodlands, savannas and scrub oak-pitch pine barrens with combinations of fire, timber harvest and other methods. Contact Ben Jones with the Pennsylvania Game Commission (benjjones@pa.gov) for details.



Mark Your Calendars

Please hold October 20-22 for a combined Consortium of Appalachian Fire Managers and Scientists fire history workshop and Central Appalachians Fire Learning Network annual meeting at Mountain Lake Lodge, near Blacksburg, VA. The first day will consist of presentations from the region's leading fire history researchers, followed by a full-day field trip to research sites and recently-burned units. An FLN working meeting will take place on the third day.



The abstract of Wayne Tyndall's paper "Restoration Results for a Maryland Shale Barren after Pignut Hickory Management and a Prescribed Burn" is at <http://castaneajournal.org/>.

The full article "Impacts of Wildfire Recency and Frequency on an Appalachian Oak Forest" by Melissa Thomas-Van Gundy is at <http://www.nrs.fs.fed.us/pubs/48658>.

New Research on Fire Effects in Shale Barrens and Oak Woodlands

FLN partner Wayne Tyndall (Maryland Department of Natural Resources) authored a paper in the June issue of *Castanea* titled "Restoration Results for a Maryland Shale Barren after Pignut Hickory Management and a Prescribed Burn." The research examined changes in the herbaceous layer after herbicide and prescribed fire treatments. This work emphasizes the biodiversity importance of woody plant management and periodic ground fires to shale barren restoration.

FLN partner Melissa Thomas-Van Gundy (USDA Forest Service, Northern Research Center and Monongahela National Forest) published a research article in the July issue of the *Journal of Forestry* titled "Impacts of Wildfire Recency and Frequency on an Appalachian Oak Forest." Results from this study suggest that frequent fires are correlated with a significantly lower total basal area and greater



abundance of oak saplings. Although the findings generally support the use of repeated prescribed fire as a management tool in oak forests, the recency of fire, fire severity and fire-free intervals should be considered to further improve oak reproduction and restore oak-dominated forests.

National Workshop of FLN and Fire Adapted Communities Learning Network

Pat Sheridan, District Ranger for the Warm Springs and James River Districts of the George Washington and Jefferson National Forests, represented the Central Appalachians FLN at the national workshop of the FLN and FAC Net in New Mexico in June. The workshop provided opportunities for seeing the results of work in the Santa Fe landscape, as well as for capturing and sharing learning, both within and between networks. A poster featuring the Central Appalachians FLN was presented at the workshop; it is posted on our page on the Conservation Gateway (see the link on the last page).

Prescribed Burning ♦ Restoring a Fire Adapted Landscape

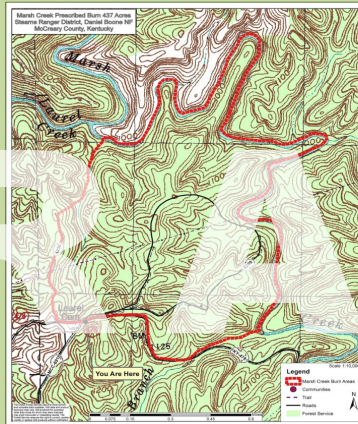


Marsh Creek Pine Savanna is dominated by pine trees, grasses, and wildflowers. This valuable habitat is being maintained using controlled burning, in addition to mechanical thinning, and mowing.

After a significant period suppressing fires, controlled burning is now recognized as a valuable tool. It removes layers of dead grass, leaf litter, and duff that inhibit the germination and growth of native grasses, wildflowers and trees. Controlled burns can thin crowded forests, resulting in less severe disease and insect pest outbreaks.



The application of prescribed fire (above) is well planned and performed to enhance native plant species, such as Indian grass (top right) and little bluestem (bottom right).



The area north of County Road 478 (shown in red above) is burned every 1 to 3 years. Mowing is performed yearly, often in strips, to provide varied habitat for animals and plants. A walk along road 6280 (the loop into the interior) will take you through spacious stands of timber and grassy areas that offer forage and protection available for wildlife.

Fire has been an essential natural process in Appalachian landscapes, shaping oak and pine forests for thousands of years. Some fires started from lightning, and Native Americans intentionally set others. Burning opened the forest understorey, increased plant diversity, and improved browse for wildlife. This made travelling and hunting easier. Early European settlers continued to use fire as a tool to shape their surroundings.



Game animals, including deer and turkey (top left), benefit from prescribed fire and mechanical land management practices. Acorns and blackberries are important food sources for many wildlife species. Fire increases fruiting in some plants and improves seed germination for others.

Songbird habitat is also favored by active management. Pictured above (from left to right) are just some of the species that benefit: red headed woodpecker, Eastern bluebird, yellow breasted chat, and Eastern towhee.



Draft version of one of the signs being developed by the Cumberland River FLN landscape and the Consortium of Appalachian Fire Managers and Scientists for a self-guided driving tour.

Outreach Efforts

Partners within the Cumberland River (Kentucky) FLN landscape are wrapping up design and fabrication of interpretive signs to be installed on the Stearns Ranger District of the Daniel Boone National Forest. The signs are part of driving tour being developed together with support from the Consortium of Appalachian Fire Managers and Scientists. The tour will have eight to ten stops and feature messages about the historic role of fire in the Appalachians; fire effects monitoring; plant, wildlife and fuel reduction benefits of controlled burns; and fire teams and safety.

Welcome New Partner

We are excited to welcome a new partner to the network, the New River-Highlands Resource Conservation & Development Council (RC&D). The RC&D has been working with communities and homeowners to develop FireWise sites in western Virginia for nearly a decade. Based in Wytheville, Virginia, they have implemented an impressive array of projects, including mechanical treatments and prescribed fire to reduce fuel loads and create defensible space around woodland homes. Interestingly, our connections to Marcus Gray (Executive Director) and Steve Spangler (Contract Forester) came through partners in our sister regional network, the Southern Blue Ridge FLN. And the new relationship couldn't be more timely as the Central Appalachians FLN looks toward becoming a part of the Fire Adapted Communities Learning Network. We will greatly benefit from the RC&D's experience working to build resilient communities in fire-adapted landscapes. For an introduction to the RC&D's work, visit their website at <http://newriver-highlandsrcd.org/protecting-woodland-homes.html>.

For more information about the Central Appalachians FLN, contact:

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Links to products of the Central Appalachians FLN, including reports, posters, interpretive signs and brochure and other materials can be found on the network's Conservation Gateway page at:

<http://www.conservationgateway.org/ConservationPractices/FireLandscapes/FireLearningNetwork/RegionalNetworks/Pages/CentralApps.aspx>

The Fire Learning Network (FLN) and Prescribed Fire Training Exchanges (TRES) are part of *Promoting Ecosystem Resilience and Fire Adapted Communities Together*, a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior.

For more information, contact Lynn Decker ldecker@tnc.org or (801) 320-0524.



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v. 18 Aug 2015/Laurel Schablein