

CAFMS Newsletter



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SUCCESSFUL FALL BURNING IN HIGH ELEVATION FORESTS

Dean Simon, N. C. Wildlife Resources Commission



Bluff Mt. Burn – Dean Simon NCWRC

The N. C. Wildlife Resources Commission (NCWRC) and The Nature Conservancy (TNC) were successful in 2011 with expanding their traditional mountain burning seasons from winter and spring to incorporate a fall burn window and complete burning projects in high elevation red oak forests on a 98-acre site at NCWRC's Three Top Mountain Game Land and on a 87-acre area at TNC's Bluff Mountain Preserve. Multiple attempts to conduct these projects during winter and spring burning seasons over the past several years have been thwarted by persistent gusty winds on these high elevation sites in Ashe County, NC, which average 4,600 to 4,800 feet in elevation. Additionally, the heavy snows during the last two winters compressed the leaf litter, making it slow to dry out and difficult to burn. Snow remained in patches in these higher elevation forests until mid-April. By mid-May, spring wildflowers and grasses appeared, trees were leafing out, and shading kept leaf litter too moist for desirable fire behavior.



Three Top Mt. Burn – Kim Hadley TNC Volunteer

Successful Fall Burning Continued:

The “fluffy” leaf litter of newly fallen leaves and favorable weather patterns during fall made fuel and site conditions conducive to burning. Fall weather patterns were very suitable with moderate relative humidity, periods of low to moderate wind speeds, adequate fuel conditions, and just enough drying days between rain showers, which followed the night after both burns. Leaves fell early at high elevations making those sites available for burning starting in mid-October. Loose leaves dried out fairly quickly after rains and produced favorable fire behavior, while the duff stayed moist and protected tree roots. Shorter day length in fall, however, put more pressure on crews to complete burns quickly to allow adequate smoke dispersal before inversions set in at sunset. Adding this mid-October through November burn window also relieved the pressure to complete all scheduled burning projects in winter and spring. NCWRC had conducted limited fall burns in the past for site preparation and to improve wildlife habitat. Adding fall burns this year proved to be the key to success in completing burns in high elevation forests.

Also, working with a number of partners in the Southern Blue Ridge-Fire Learning Network (SBR-FLN) made these burns a success. Staff from NCWRC, the lead agency on these burns, N. C. Forest Service, and N. C. Division of Parks and Recreation joined with TNC staff and volunteers to pull off these fall burns, which were designed to restore high elevation red oak forests. These burns were important for all agencies involved, serving as a model for successful collaboration. Both burn projects are part of the New River Headwaters SBR-FLN landscape with pre and post burn data collection by Dr. Peter Bates with Western Carolina University, to provide important monitoring data.

Fire and Forest Management Impacts on Timber Rattlesnakes and Their Surrogates Workshop March 8, 2012 – The Museum of Biodiversity, The Ohio State University

CAFMS along with the USDA Forest Service Northern Research Station are organizing a workshop to present the current state of knowledge regarding timber rattlesnake and surrogates biology and ecology, and responses to forest management practices such as prescribed fire and overstory thinning within Ohio, Kentucky and Indiana populations. This workshop will also work to identify and discuss research and management needs to ensure the viability of timber rattlesnake populations within forested landscapes.

In the course of developing prescriptive treatments to enhance oak regeneration in central Appalachian mixed oak forests, researchers are investigating the feasibility of expanding the burn window beyond the dormant season. By conducting low-intensity, early growing season burns, the sprouting capacity of competitors such as maples are reduced. This occurs because maples leaf-out and deplete stored energy reserves prior to oaks. The burning window may also be expanded into October, during snake entrance into dens.

There is valid concern that the timber rattlesnake maybe emerging from hibernation during this same time period. Although not federally listed, timber rattlesnake populations are declining within its historic range. The timber rattlesnake is state-listed as endangered in Ohio, Indiana, New Jersey, Vermont, Massachusetts, New Hampshire and Vermont, and it is threatened in New York, Connecticut, Illinois, Minnesota and Texas. Unfortunately, public land managers have little information available to develop sound management practices that protect timber rattlesnake populations as well as enhance potential habitat within forested landscapes.

More details on the agenda and registration will be out in early January 2012.



Smoke in the Mountains Workshop – Round 2.

We have a 2nd Smoke in the Mountains workshop scheduled for February 28th, 2012 at the Bent Creek Training Center near Asheville, NC. This will be the same workshop that was held in Charlottesville, VA in August. We are just moving it south to reach more people! Check www.CAFMS.org in January 2012 for registration details.

What have we been up to?

CAFMS has had the opportunity to meet with more great people this fall. In September we along with the Southern Fire Exchange put together a talk for the Georgia Prescribed Fire Council that was presented by Alan Long.

We met with the North Carolina Fire Management Officers from the US Forest Service to give a presentation on CAFMS and answer questions about how we can work together.

Helen and Tom had a display at the Southern Appalachian Man and the Biosphere Conference in Asheville, NC in November. We shared information about CAFMS and the additional 7 consortia around the country along with information on fire in the mountains.



Helen Mohr and Tom Waldrop at SAMAB with Joe Wiegand - Teddy Roosevelt repressor.

Communicate With Us!



Find us on twitter @APfirescience or find us on Facebook by searching Consortium of Appalachian Fire Managers and Scientists.

Join CAFMS:

The consortium is for all land managers and researchers in the region who deal with any aspect of fire. To join, simply provide us with some contact information at the web site listed below.

<https://spreadsheets.google.com/viewform?formkey=dDNiUnFrYzNNVU00dkxka1hKM2p0cFE6MQ>

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