

NORTH CAROLINA PRESCRIBED FIRE COUNCIL NEWSLETTER

(Volume 1, Issue 1)

Fall 2007

The North Carolina Prescribed Fire Council (NCPFC) has come a long way since 2003, when a group of prescribed fire advocates convened in Raleigh. We have officers, an 8-person Steering Committee, bylaws, over 100 members, and a website (www.ncprescribedfirecouncil.org). These many accomplishments were achieved primarily because of the efforts of two people – Margit Bucher (Council Chair during '06-'07) and Kelley Van Druten (Information and Outreach Subcommittee Chair for the last two years).

Now we have a newsletter. A serious shortcoming of the Council until this point has been the absence of sustained communication with members and individual stakeholders. I hope this first newsletter will serve as a linkage among the Steering Committee, state and federal agencies, NGOs, and the Council stakeholders across North Carolina. The newsletter should have several recurring sections, including a Chair Report, Program Updates, a Membership Highlight, a Burning Success Story, Subcommittee Reports, and a Fire-adapted Plant/Animal Highlight. I welcome comments regarding what you like and dislike about the current format of this initial newsletter. Maybe you would like to become our Newsletter Editor? Please send suggestions for improvement or contributions to the next issue.

As Chair, I established two primary goals for the Council, each of which is appropriate for a new organization like the NCPFC. First, I'd like the individual membership of the Council to increase to over 200 people. This seems realistic considering that hundreds of people in North Carolina have dealings with prescribed fire as part of their job or as part of their land management activities. Plus, membership is FREE. Currently, the Council has around 120 individual members, so we (you and me) need to recruit another 75-80 in the next six months. Please help spread the word. Forward this newsletter to colleagues and have them complete the included membership application if they are interested. We also have a display that can be used along with our NCPFC brochures to recruit new members during society meetings or other events. Contact me if you'd like to use the display at your event.

My second goal is to find a consistent source of funding support for the NCPFC. Until now, we've operated mostly using in-kind support (TNC has hosted the website, NC Cooperative Extension organized the last Annual Meeting, etc.). Last year, the NC Division of Forest Resources (NCDFR) sponsored our Annual Meeting. NCDFR also will sponsor the January 2008 Annual Meeting and has agreed to provide the NCPFC with approximately \$5000 in funding for this fiscal year. Quail Unlimited generously has offered some financial support to the Council, and Bruce Wachter of QU has agreed to serve as our webmaster free of charge. These funds from NCDFR and QU may or may not come around every year, so please send contacts for potential funding sources to me.

The NCPFC cannot reach its full potential without contributions from a significant portion of its membership. Please consider helping out by serving on a subcommittee, recruiting new members, or running for office. *Submitted by Chris Moorman, Chair - North Carolina Prescribed Fire Council (chris_moorman@ncsu.edu).*

NOMINATIONS FOR OFFICERS NEEDED

The Steering Committee currently is seeking nominations for the position of Vice-Chair and four At-large Members to serve 2-year terms. Our election will be conducted prior to and during the January 16 Annual Meeting, and the winners will begin serving March 1, 2008. The duties of the Vice-Chair are to:

- › Be a member of the Steering Committee for one year before assuming the Chair position
- › Serve in the absence of the Chair
- › Chair the Annual Meeting Subcommittee

At-large Members of the Steering Committee should be willing to participate in the annual meeting and 2-3 steering committee meetings each year and to send a designee to represent them if they are unable to attend a meeting. Nominations should be submitted to Terry Sharpe (sharpetl@etinternet.net) prior to November 15.

ANNUAL MEETING

Mark your calendars and plan to attend the North Carolina Prescribed Fire Council Annual Meeting on Wednesday, January 16, 2008 at Poplar Grove Plantation near Wilmington (about 10 miles north of Wilmington on Hwy 17 in Ogden, NC).

Our program committee is planning a one day meeting which will include updates on:

- Development of a National Coalition of Prescribed Fire Councils
- Changes in federal air quality regulations and policies
- Regional initiatives to better manage longleaf pine on private lands
- State issues, including an update on North Carolina's Smoke Management Plan
- Local issues, including an interactive techniques session featuring prescribed burning in some of our unique and challenging Coastal Plain ecosystems

There will be good food, updates from each of the Council's sub-committees, and opportunities to network with people who have lots of burning experience. We will send out more details and registration instructions in late fall.

If you or someone you know would like to display a poster, burning equipment, or other items of interest to prescribed burners, contact Terry Sharpe (sharpetl@etinternet.net).

SUBCOMMITTEE REPORTS

Education and Outreach

The subcommittee developed a Communications Plan for the Council and is now working to implement that plan. Current projects include improving the website and developing a fire-assisted species list. The Subcommittee always is open to new members or any outreach ideas from the Council at large. For more information or to become involved with this subcommittee, contact Kelley Van Druten (kelly_vandruten@fws.gov).

Membership

Our membership stands at 110 individuals. We receive about 3-5 new membership applications per month, usually after a presentation or distribution of our membership brochures. With no membership fee required the sky is the limit for this group. The subcommittee will work with the Steering Committee to circulate the electronic newsletter to other allied groups to share with their listserves and membership. To become a member, contact Mark Megalos (mark.megalos@ncsu.edu) or complete the form at the end of this newsletter.

Data Collection and Information Subcommittee

The subcommittee will gather data on where prescribed burning in NC currently is conducted (location, fire frequency, burning entity, goals), delineate where more prescribed burning would be beneficial to natural resources, and identify the impediments to implementing prescribed burning in maintaining ecosystem health. To participate on this subcommittee, contact Chris Moorman (chris_moorman@ncsu.edu).

Implementation

The subcommittee works closely with the other subcommittees to identify factors that impede practitioner use of prescribed fire both on public and private lands. It will develop solutions/actions to ameliorate these problems. It will provide a means of supporting and enhancing certified burner and other current and future training programs designed to organize and train responsible, experienced prescribed burners. To participate on this subcommittee, contact Margit Bucher (mbucher@tnc.org).

Regulatory/Policy and the Environment

The subcommittee will identify potential issues (e.g. air quality and/or wetlands) that could affect the use of prescribed fire and develop solutions in cooperation with regulatory agencies. It will provide an active conservation voice in legislative proceedings that debate the future of prescribed fire as a primary tool for wildlife, forest, and ecosystem management in North Carolina. To participate, contact Bob Mickler (rmickler@alionscience.com) or Cynthia Van Der Wiele (cynthia.vanderwiele@ncmail.net).

Annual Meeting Program

The subcommittee will be responsible for coordination of the annual meeting, including program development, site location, registration, and logistics. Headed by the Vice Chair, the committee will ensure that all stakeholders are alerted to and included in the annual meeting. To help in developing future annual meeting programs, contact Terry Sharpe (sharpetl@etinternet.net).

PROGRAM UPDATES

Fire Learning Network

The Fire Learning Network (FLN) focuses on project sites that are grouped into similar ecosystem groups. Partners in the landscape projects work through four workshops to collaboratively establish landscape goals, identify desired future conditions and obstacles to implementation, develop solutions to overcome obstacles, and track progress and success. The goal of these networks is to accelerate ecosystem restoration through better transfer of lessons learned, collaboration, and communication. The workshops are not open to the general public

and require groups of stakeholders comprised of mostly landowners to commit to work through the entire process. *Submitted by Margit Bucher, The Nature Conservancy.*

Landfire

Landfire will provide nationally consistent GIS data for fire planning. Data for the NC Coastal Plain will be available in October and later in 2008 for the Piedmont and mountain regions (<http://www.landfire.gov/index.php>). The data should aid in tracking fire-related issues at a regional scale. Landfire is primarily a planning tool to be used by public landowners with larger holdings. Private landowners may use Landfire to assess what 'experts' think about fire return intervals for certain forest types. Landowners could then use the data to mimic burning regimes to which targeted wildlife species have been accustomed for the past thousands of years.

Landfire data should aid the NC Prescribed Fire Council in summarizing the statewide fire story, assessing recent loss in fire-maintained habitats, and targeting efforts to increase private landowner burning. *Submitted by Margit Bucher, The Nature Conservancy.*

National Coalition of Prescribed Fire Councils

Since November 2006, the Coalition has strived for national participation and acceptance, and now includes twenty seven states, plus British Columbia and Mexico. The Coalition continues to achieve its primary goal of providing a forum to support prescribed fire councils across the U.S. and facilitate their formation. Another important accomplishment of the Coalition has been the significant increase in communication between prescribed fire practitioners in various regions and ecosystem types. Stricter air quality regulations, an increase in the “wildland urban interface”, and the need for outreach and education programs have created a “call to action” to the prescribed fire community. We need to work together to protect the use of fire in the landscape. We thank all of you that have invested so much of your time into your State prescribed fire programs and welcome you to the Coalition! Within the next year, we plan to establish the organizational structure of the Coalition, develop an inclusive Coalition website, gain input from all States on their needs, and hold our first National Coalition of Prescribed Fire Councils meeting. Congratulations to the North Carolina Prescribed Fire Council and all of your accomplishments! We look forward to working together in the future! For more Coalition information, please contact mark.melvin@jonesctr.org. *Submitted by Mark Melvin and Tara Claghorn, National Coalition of Prescribed Fire Councils.*

RESEARCH UPDATE

Defining Socially-Optimal Fuel Reduction Programs

One of the most important and elusive issues in fire management is defining the “best” amount of fuel treatments to apply to a forested landscape. The definition of optimal treatments is difficult because: (1) the effectiveness of treatments is difficult to measure and varies over time, (2) treatment costs are variable and influenced by the scale of operations, (3) the damages from wildfire to timber, human health, tourism, and personal property are complex and regionally variable, (4) prescribed fire carries a risk of escape and may worsen air quality, and (5) future wildfire occurrences are inherently uncertain in both time and location.

Researchers at the Southern Research Station have, over the course of five years, completed a series of studies to address each of the elements of this large question. Results of their studies could be useful for fire managers and policy makers. By placing data on forest resources, meteorology, fire occurrence, and economic impacts into a probabilistic modeling framework, they have built a state-of-the-science assessment of prescribed burning efficacy statewide in Florida. Unlike previous studies, this work goes well beyond natural resource impacts to address how prescribed fire programs affect total social welfare at a broad scale.

Their capstone analysis, applied to heavily forested but populated Volusia County, Florida, first describes how wildfire intensity and area burned are related to climate, historical wildfire activity, and prescribed fire. Wildfires are simulated many years into the future, under alternative rates of prescribed fire and variable climatic patterns. Next, the economic impacts of the simulated wildfire in terms of losses of timber, housing, and other sectors and impacts on human health are compared with the expense of these alternative rates of prescribed fire. The results of this capstone study, published in the *American Journal of Agricultural Economics* (available at <http://treesearch.fs.fed.us/pubs/26220>) indicate that, not only does the current rate of prescribed burning generate net gains in social welfare, but that additional gains would accrue from a considerably larger prescribed burning program. While landowners in Volusia County, Florida, currently prescribe burn about 4-5 percent of forests per year, the socially optimal rate of prescribed fire there is approximately three times higher.

The results have immediate, transferable information for forest managers, but also define broader policy and program implications. Among the policy relevant findings are (1) actions that expand the supply of private or public fuel treatment services in this area could have a large effect on managers' ability to meet their goals, (2) optimal policies depend heavily on potential fire severity in addition to area, and (3) when public land managers use private sector services to prescribe burn, they may drive the cost of these services higher for private forests—an unintended consequence of public programs can be a reduction in beneficial activities on private land.

This study's methods could be applied to other parts of the South and in other regions of the US and could be used to compare returns to treatments among different regions. They provide critical information for designing and targeting the best public policies for managing fuel loadings in the nation's forests. *Submitted August 30, 2007 by Jeffrey P. Prestemon and D. Evan Mercer, US Forest Service, RTP, NC.*

MEMBER HIGHLIGHT

Looking Back on the Season: An Update from NC USFWS

As the Western fire season begins to wind down, the US Fish and Wildlife Service fire staff in eastern North Carolina paused to reflect on the local prescribed burning and spring fire seasons. Over 17,000 acres were prescribed burned on six national wildlife refuges between November 5, 2006 and April 5, 2007. This included a unit that had not been burned before at Alligator River NWR, important fuel reduction burns behind the homes on Lola Road at Cedar Island NWR, and an ecosystem burn for fuel reduction and habitat improvement at Pocosin Lakes NWR. Between November and June, five refuges experienced a total of 23 wildfires on or near refuge lands.

These fires ranged from small roadside fires to a 4,000-acre wildfire on Marine Corp land handled by the Service with staff assembled at Cedar Island NWR for prescribed burning.

Table 1. Acreage of Prescribed Burn and Wildfires on or near National Wildlife Refuges, November 2006 – June 2007.

Refuge	Prescribed Burn Acres	Wildfire Acres
Alligator River	6,488	1,219
Pea Island	1,171	
Mackay Island	2,182	61
Currituck	234	4
Cedar Island	6,398	4,124
Pocosin Lakes	970	59
	17,443	5,467

The weather made it a tricky season for prescribed burning, going very quickly from too wet to too dry without much burn time in between. Wind direction and dryness never coincided in the right combination to burn the District’s highest priority burn units just to the north of Stumpy Point, NC. While burning on Alligator River in March, part of the prescribed burn crew had to break off and fight a suspicious fire that was threatening the Outer Banks Gun Club. Another March prescribed burn conducted jointly on refuge and Dare County Bombing Range lands had to be declared a wildfire when forecasted rains failed to materialize and the refuge experienced red flag conditions instead. A couple days of mop-up after burning turned into almost two weeks of fighting ground fire. Firefighters and support crews from all the refuges pitched in to tackle the busy local season.

The spring proved to be a very active fire season all over the Southeast and many refuge firefighters answered the call to help off district as well. Refuges sent firefighters and equipment to fires in Georgia, Florida, and North Carolina. Even as local resources prepared to help with fire assignments out West, a lightning strike started a 50-acre wildfire on Pocosin Lakes NWR the last week of June. Local and extended droughts across areas of the country are leading to an active season with very dry fuels showing extreme fire behavior. District Fire Management Officer Tom Crews said, “The experience and professionalism of our local firefighters and cooperators led to another successful prescribed burning season. I want our crews to stay safe and have some great training assignments out West this summer so that this fall they are eager to go with another prescribed fire season here in North Carolina.”



As evening advances, a firefighter completes ignition on a prescribed burn on Mackay Island NWR. credit: Cory Waters, USFWS.



Firefighters discuss the next phase of ignitions during a prescribed burn on Pea Island NWR.
credit: USFWS



Firefighters use a powertorch from the marshmaster to ignite a prescribed burn on Pea Island NWR. credit: USFWS

BURNING SUCCESS STORY

Fields Road Stewardship Forest

The 440-acre Fields Road Stewardship Forest is located on the north side of the Cape Fear River in Cumberland County. The tract includes approximately one mile of river frontage and is surrounded by farms and homes. The woodland includes mature and nearly mature mixed bottomland hardwood stands, young planted longleaf pine stands, and approximately 250 acres of planted and natural loblolly pine stands. These loblolly pine stands are 30 to 50 years old and contain scattered mixed hardwoods and scattered old growth pines and hardwoods. The woodland is managed for multiple uses, including timber production, wildlife, recreation, and aesthetics. Many of the pine stands were first thinned in the late 1980's. After the thinning was conducted, the understory vegetation flourished and became a nearly impenetrable wall of saplings, vines, and briars. Although deer and wild turkey used the bottomland hardwood stands, the pine stands offered very little value to wildlife other than cover. Traveling through these stands was best accomplished using a machete or crawling along deer paths. If you were fortunate enough to encounter a deer or turkey while struggling through the undergrowth, you would know it by the sound of the animal moving away briskly as you swung the machete or hollered in pain from the briars that were tearing at your clothing and flesh. Visibility was less than 15 feet.

Fast forward about a dozen years. It's early summer and the understory vegetation has fully leafed out. You're strolling through the same pine stands where you had to crawl or hack your way through just 12 years ago. The dog that you brought with you is zigzagging through knee high grasses and flowering plants. Some woody plants remain in the understory but they are much smaller and less numerous. The vines and briars that had hampered travel are gone except in the wettest areas along the drains. The dog jumps three deer that were resting near one of these drainages and you have to holler whoah to keep him from chasing after them. You watch the deer bound through the forest for more than 100 yards before they disappear over a slight rise heading towards the river. On the way back to the truck, you see a fox squirrel cross a well maintained fireline about 100 feet in front of you. The squirrel scampers and hops through the sparse understory vegetation and then finally climbs up the charred bark of an old pine tree when the dog gives chase. The fireline is full of deer tracks and signs of wild turkeys. The turkeys have been dusting themselves in bare spots in the fireline and you find some of their feathers near the large round dustbowls that they have created. As you near the truck, a pair of bobwhite quail flushes from an opening that was created during a thinning operation. The deer hunters that lease the tract say that the numbers of deer, quail, and wild turkeys have increased dramatically.

This is a success story. The managed pine stands that were so difficult to walk through a dozen years ago have been transformed by repeated prescribed burning. In addition to increasing the value of these stands to wildlife, they now are more open and "park like", which enhances recreational value and aesthetics. One of the primary incentives to burning these stands was to protect the valuable timber that is growing on the property. This objective has been achieved and the homes and farms surrounding the tract also have been afforded a good deal of protection from wildfires. Much of the burning conducted on the Fields Road Stewardship Forest was funded by the Wildlife Habitat Improvement Program. This property is an example of the

benefits of sound forest management and how North Carolina's residents can benefit from prescribed burning and cost-share assistance programs that promote burning. *Submitted September, 2007 by Marshall Hartsfield, N. C. Registered Forester #789 and Certified Prescribed Burner.*

FIRE-ADAPTED PLANT HIGHLIGHT

The fire-loving lily - *Lilium pyrophilum*

Lilium pyrophilum, the Sandhills lily, is a recently described narrow endemic to 16 counties in the Sandhills region of southern Virginia, North Carolina, and northern South Carolina. Like many fire-dependent rare plants, it has found refuge and frequent fire provided by exploding ordnance on military bases in the Carolinas. It occurs within the longleaf pine ecosystem in sandy, wet to dry ecotones associated with streamheads, seeps, swampy streams, and wet, maintained power lines. It is closely related to the turk's-cap lily (*L. superbum*), which occurs to the west in the upper Piedmont, but has most often been lumped with the Carolina lily (*L. michauxii*). So keep an eye out for this beautiful lily in the Sandhills region, report any occurrences to the North Carolina Natural Heritage Program, and keep burning the ecosystem which many of our rarest plants inhabit. *Submitted by Johnny Randall, Ph.D., Assistant Director, North Carolina Botanical Garden, The University of North Carolina at Chapel Hill.*



To join the **North Carolina Prescribed Fire Council**, complete this form and mail it to the address below. You can also fax the form or contact Mark by email.

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NAME: _____

ORGANIZATION: _____

MAILING ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

PHONE: _____ Email: _____

Are you interested in participating on a Council subcommittee? YES ____ NO ____

If YES, which one? Education and Outreach _____

Policy and Regulatory _____

Membership _____

Implementation _____

Annual Meeting _____