Fire Is Good

By Joann Fricke

As I contemplated what I wanted to convey with this article, my mind kept returning to what the blind man told Frankenstein's monster in "Young Frankenstein" as he tried to teach the monster to smoke a cigar, "Fire is good. Fire is your friend." This couldn't be more true of prescribed burning for both woodlands and prairies as you will learn later in this issue in the article by Debbie Scott Newman.

I think we all have a certain fascination with fire. We enjoy watching the flame as it licks around the logs in a fire pit. We sit, mesmerized, wondering which log will be consumed first. Serving as a volunteer at a prescribed burn is probably my favorite stewardship activity. Not only do you get to play with fire, but you

get to observe the beauty of different and unique properties.

I've learned a lot in the last 5 years. Did you know that fire creeps downhill but roars uphill? This is a phenomenon that you don't just see, but you hear, as well. I observed this firsthand at a prescribed burn last March at the land and water reserve that my husband and I own. I was standing at the edge of the woods at the top of a draw as a headfire was lit in the ravine below. I heard the roar long before I saw the flames, but when it caught, the fire was unstoppable. (See photo at right.)

Another interesting fact about prescribed fire is that oak leaves burn better than, say, maple leaves. And the reason for this is



Photo by Joann Fricke

that oak leaves contain a higher concentration of tannins which make them burn hotter than other leaf litter.

If you'd like to satisfy the pyromaniac in you, consider volunteering for the next Clifftop sponsored prescribed burn. Send an email to cliffmbr@htc.net and I'll add you to our volunteer roster.





Photo by Joann Fricke

"One does not set fire to a world which is already lost."

> --Friedrich Durrenmatt Swiss author and dramatist



Hickory Nuts Roasting in an Open Fire....

By Debbie Scott Newman Natural Areas Preservation Specialist, Illinois Nature Preserves Commission

Jack Frost nipping at your nose. Ahh, the sounds of the crackling fire. Twigs and logs giving off that familiar smokey aroma. And the warm comforts of glowing embers amidst the chilly air. It all brings me right back to the previous season. I just love it.

Oh, sorry, I'm not talking about a fire in the woodstove or fireplace. (Well, I love that too.) I'm describing those fires creeping down a wooded slope of Salt Lick Point Land and Water Reserve or White Rock Nature Preserve. Fires intentionally lit to burn across a defined area of the landscape. As a prescribed burn practitioner for 24



The author, Debbie Scott Newman, gives instructions to volunteers prior to a prescribed burn at Salt Lick in January, 2012.

Photo by Joann Fricke

years, these sensory memories pull me right back into the burn 'season', which usually extends from mid-October to early April when the landscape vegetation is dormant. Once you're at a fire, it's hard to forget the experience.

Sitting around the Christmas table my cousin quips, "What? You set fire to 100 acres? Why do you do that? Are you crazy!?" As I've done with hundreds of people over the years, I try to explain the *why's* of burning the landscape, and invariably express those sentimental sights and sounds of being at a fire.

The why—or the benefits of applying fire to our woods, prairies and wetlands—has its foundations in ecological and human history, and would take a tome to explain.

Suffice it to say, Native Americans and early farmers and settlers harnessed the power of fire to manipulate the landscape, drive game, prepare for crop planting, kill bugs,

and other things we may know little about. The landscape manipulation was really more of working *with* nature to maintain natural communities or native habitats as they had been for thousands of years. That is what we continue to seek to do today.

Applying fire to our southwest Illinois wildlands is vitally important to saving the diverse ecosystems that have graced our area since the last Ice Age. Among these are oak-hickory forests, hill prairies and limestone glades (both a grassland-dominated habitat), and wetlands and marshes. All of these natural communities are fire-adapted---they have evolved to thrive with fire. In fact, woodlands, prairies and glades, *must have* fire to exist for the long-term.

When we apply fire to the landscape today, a set of objectives determines our motivation and course of action. The benefits vary. Here are the most important ones:

While in dry years fire might have historically traversed through all the forest in a given area, it was the south-and west-facing, oak-hickory dominated woodlands that would have seen more regular and much hotter fires. Oak trees in particular, have thick, corky bark that protects them from the effects of fire. Maple trees, on the other hand, have a very thin bark and are quite susceptible to the effects of fire, even on medium-diameter trees. They historically thrived in the moister, shaded ravines and north-facing slopes. Oaks need sunlight for successful reproduction and growth, whereas maples are quite shade tolerant. Today, after 60 years of fire suppression policies, the oak forests in the eastern U.S. (including IL) are converting to maple-dominated forests. And once maples get established, the oaks can no longer germinate under their shade. Applying hot fire to sites where the canopy is dominated by oaks but the seedling/sapling layer—the next generation of forest---is all maple can assist with rebalancing the woods back to a healthy oak forest.

Burning the woods is also important for reducing years or decades of leaf litter. Of course leaf litter is a key part of any forest, but deep layers decay slowly on their own, and over time can become so thick that they snuff out spring and summer wildflowers. The summer wildflowers, too, need sunlight and reducing some of the shrub/young tree layers of the forest helps sustain wildflower diversity---and thus protects wildlife diversity.

Hill prairies and limestone glades are both habitats dominated by a mixture of grasses and wildflowers, both of which *must* have sunlight to survive. These highly complex natural communities are quite rare in Illinois. Only about 500 acres of high quality hill prairie remain statewide! Fire helps to reduce/retard the quantity of woody plants, particularly cedar trees and various shrubs in prairies and glades. Unfortunately decades of fire suppression have left these communities also struggling from imbalance, much like the oak forests. Most prairies would need very hot fire several years in a row to completely eliminate woody invaders. Because this is hard to accomplish, we use mechanical control (cutting) in combination with burning.

Burning accomplishes other critical tasks in prairies and glades. Prairies can harbor over 100 species of wildflowers, but still, they are dominated by grasses. In particular, grasses that grow in thick bunches,

leaving substantial thatch in winter. When spring arrives and the plants emerge from dormancy, they must push through these thick mats of dead material. Over time, the thatch starts to smother out plants (including the grasses themselves), and diversity and abundance of wildflowers and grasses declines. Burning eliminates the thatch, providing lots of 'space' for things to spread out and grow.

A similar scenario is found in wetlands. These natural communities, though, historically would have burned less, usually only in drier years like we had in 2012. But in those years, fires can reduce or eliminate cattail and other emergent vegetation thatch that has accumulated and prevented new plants from thriving in the wetland.



Photo by Joann Fricke

In all habitats, returning nutrients to the soil in a form more immediately available for plant uptake is a large benefit of fire. Rather than nutrients such as potassium and phosphorus being slowly released through decay of dead plant matter, burning quickly delivers it—as soon as the first rains after a fire—for plants to efficiently utilize. One of the most amazing sights is to go to a prairie in May or June, after a fire, and witness the explosion of blooming flowers. The indirect benefit of the fire is that this increased flowering results in more seed production, which in turn promotes more propagation throughout the prairie. Fires also effect soil ph and increase soil organism activity, both of which are delicately intertwined in a healthy, self-sustainable prairie or woodland. And earlier soil warming allows for longer growing conditions and thus more vigorous plant growth.

There are many things fire can do that might directly make us humans happy. It can reduce tick and chigger populations (Yea!!!), knock back poison ivy (Editor's note, "Yea!!!"), improve morel production and make it easier to walk through the woods and prairies. And it can provide us with that wonderful seasonal aroma, sights and sounds of, well, hickory nuts and acorns roasting and popping.

To learn more about applying fire to your property consider signing up for Clifftop's workshop on prescribed burning (detailed information later in this issue). For anyone who would like to come join us for this seasonal activity—and is serious about learning the craft of prescribed burning, please contact Clifftop by phone at (618)458-4674 or email clifftop@htc.net.



Bluff Recollections

By Edna Dell Weinel

When asked for reflections on the Mississippi River bluffs and adjacent land near Columbia, I am sure, that you, the reader, find yourself as I did, realizing that there has never been a time when one is not aware of our beautiful, priceless bluffs, and the farmlands, wetlands, small patches of woods, ponds, and the ever-present Mississippi River itself. The splendor of these great walls of rock overlooking rich river-bottom fields and woodlands captures the heart of all who live in this region.

When I was a child my father and his brother owned the Weinel Hardware Store in Columbia. Through their business which sold agricultural implements, they knew all of the farmers and farms in the "Bottoms" as well as along the top of the bluffs. Among my early memories are the Sunday afternoon drives we would take along Bluff Road, into the "Bottoms," or up on top of the bluffs to view how the crops were growing. The cycle of the seasons, that was part of the beauty we experienced, served as an almanac for the farmers, hunters, birds,

animals and life in general.

For most of us children growing up in Columbia, one of the rights of passage was to ride our bikes to Terry Springs. This was a wonderfully cool spot during those hot summer days in the 1930s. The water coming out and over the rocks at Terry Springs was cold and, in our view, "pure," so we all drank it!! We always looked into the cave behind and beyond the waterfall with fear and excitement. As you might guess, we went to Terry Springs with stern instructions from all the mothers, "No climbing on the rocks!" and even more stern warnings against even thinking about going into the cave.



Terry Springs

photo by Paul Feldker

In that same area, just south of Columbia on Bluff Road, there is an outcropping of the bluffs which we named "Lovers' Leap" in the certainty that Monroe County, like many other high, rocky settings, had an Indian Princess, who loved a Noble Brave from an enemy tribe. In our fantasies, they became our own ill-fated lovers who, for the sake of their forbidden love, cast themselves from "Lovers' Leap." This out-cropping is near the junction of Bluff and Steppig Roads, and at the base of this bluff there were rock formations perfect for holding a picnic on the course of our bike trips.



Steppig Lakes

photo by Paul Feldker

Speaking of Steppig Road, a very exciting natural event occurred just up the hill from Bluff Road in the 1930s when an artesian spring broke through the ground and began forming a pool. This little bubble of water seeping upward was to become the very large bodies of water we now know as Steppig's Lakes. The extraordinary event was chronicled in the *St. Louis Post Dispatch*, complete with photographs in the Sunday "Rotogravure" section. In my memory some of those pictures of the artesian spring included children holding bouquets of wildflowers. Does anyone recall whether these were Steppig children, or neighborhood children?

During these same years, Girl Scouting and work on merit badges made all of us in our Columbia Troop aware of the flowers and trees, both on the bluffs and in the wetlands. For those Girl Scouts with a quick eye and keen ear (which I seemed to lack,) there were resident and migrating birds to identify in order to earn the "birding" badge. If my memory is correct, geologically, we were taught how the Mississippi River was carved by a receding glacier, and that at one time in geological history water covered everything from the Missouri bluffs to ours. I can still feel the awesomeness of that description.

From adolescence comes the fearsome memory of the "old Fountain Gap Road!" Today this road is known as Hanover Road and is quite wide, paved and gently



Steppig Lakes

photo by Paul Feldker

descending to meet Bluff Road. That was not the case, however, when I was fifteen and learning to drive. At that time my brothers were teaching me how to handle the gray-green '36 Chrysler on the country roads leading to and through New Hanover. To drive down Fountain Gap Road was saved for last! It is hard to describe today how steep, curvy, and scary driving on the loose gravel road was for a novice driver in the early 1940's.

As a child, the bluffs and all the land surrounding below and above, felt massive, solid, secure for the ages. Now, 70 years later, we all know better. We realize that this natural world we love, and often take for granted, is fragile and can be quickly lost. Today, thanks to Clifftop, we have direct ways to protect and preserve this natural world we love in all of its majesty and biodiversity. A very grateful "Thank you!" is extended to you landowners who organized *Clifftop* as a means of realizing your vision and ensuring the preservation of our land. You deserve another important "Thanks" for opening Clifftop to those of us who are "landless" to join with you in the work of preservation. As a special way to show our thanks I call on all of us who cherish this land, and are "landless" members, to find ways to increase our individual contributions to this critical work of preservation. We are all spiritually and physically blessed by our precious land, and fortunate that we now have ways to sustain and support it.

(Editor's note: Many thanks to Paul Feldker, who, on a 20 degree morning when asked if he had any photos of Terry Springs and Steppig Lakes, promptly motored to those locations to snap some pictures.)

Just for fun...

This red-tailed hawk apparently can't read.



Upcoming Events

Workshop on Prescribed Burning

You've probably seen Clifftop's display of prescribed burn gear—yellow suit, helmet, goggles, water pack, drip torch and various hand tools – and might have seen the "smoke signals" of a prescribed burn in our bluff lands

as CLIFFhanger volunteers use this management tool for land stewardship efforts.

On Saturday, January 19th, Clifftop will hold a workshop on prescribed burning. We'll discuss the benefits prescribed burning brings to natural areas and how it enhances wildlife habitat. We'll also talk about fire "behavior" and the differences that terrain, temperature, wind, and humidity create. Information about the Illinois Burn Law and requirements for landowners also will be presented. CLIFFhanger volunteers also will demonstrate the uses, care and maintenance, of the tools fire crews use. Fire crew safety and responsibilities – a primer for new volunteers and a good refresher for returning CLIFFhangers – also will be a focus.



Photo by Joann Fricke

The workshop runs from 9 am to noon at the Monroe County Annex, 901 Illinois Ave., Waterloo. The workshop is free and open to the public. Pre-registration is required so that we have sufficient handouts (and coffee) for all attendees. Please pre-register by January 17th by email to clifftop@htc.net or by 'phone at 618-458-4674.



Photo by Joann Fricke

Full Moon Owl Prowl at White Rock I and and Water Reserve

Please join Clifftop and the Kaskaskia Valley Audubon Society for an easy moonlit walk at White Rock Land and Water Reserve as we listen and look for owls. The owl prowl will be held from 6 to 8 pm on Saturday February 23rd. We'll assemble at the White Rock parking area, located off of Bluff Road, about 2 miles south of Valmeyer and then hike onto the Reserve.

The Land and Water Reserve, which is separate from White Rock Nature Preserve, is not open to general public hiking, but is reserved for special guided tours like this one.

During late winter owls begin their annual nesting process and they often are at their most vocal – hooting and calling -- as they establish and proclaim territories and seek mates. We may hear, and perhaps even see, our year-round resident species great horned owls, barred owls, screech owls and barn owls. Migratory owl species often begin seeking mates before heading north and we also may hear saw-whet owls and long-eared owls.

Participants are asked to dress in weather-appropriate clothing and to bring a small flashlight for occasional use during the prowl. Pre-registration is required (we want to be able to contact you should weather force a cancellation) by February 21st and can be done by email to clifftop@htc.net or by 'phone at 618-458-4674.



Photo by Paul Feldker



Plan to attend these workshops focusing on Emerald Ash Borer, Thousand Cankers Disease and invasive plants. In-depth training sessions will highlight identification, symptoms, management and much more! \$25 registration fee covers lunch and training materials.

March 14, 2013 9:00 am to 3:00 pm **Collinsville Extension Office** 1 Regency Plaza Collinsville, IL 62234

Beginning January 7, register at: http://web.extension.illinois.edu/mms/ Hosted by the University of Illinois Extension

For more information contact Sarah Ruth at ruth1@illinois.edu or (618)344-4320



Ruffles and Flourishes

Clifftop is a kind of a network, partnering local residents and landowners -- kindred spirits -- who want to conserve our bluff land's natural heritage. But Clifftop is also a conservation organizer, collaborating and partnering with other conservation groups, federal and state agencies, and conservation foundational funders to bring progress in preserving our natural legacy. To these ends, 2012 was a banner year for recognition of the importance of partnerships and networks.

 Clifftop board member Ralph Buettner, in August, received the Illinois Department of Natural Resources (IDNR) Conservationist of the Year Award. Ralph has been a tireless worker, volunteering thousands of hours to the causes of conservation in Southwestern Illinois.



Photo courtesy IDNR

 In September, Clifftop board member Carl DauBach was elected to the board of the Illinois Audubon Society (IAS). IAS was founded in 1897, is the oldest non-profit conservation organization in the state, maintains 9 natural area sanctuaries in Illinois, and has protected over 4000 acres of open space. In 2004, IAS garnered the foundation funding to purchase a conservation easement from the Village of Valmeyer and establish the Salt Lick Point Land & Water Reserve.



Photo by Joann Fricke

 In October, Clifftop board member Pen DauBach was appointed by the Governor to the Illinois Nature Preserves Commission. The 9-member statewide commission evaluates new natural area sites for registration and oversees the stewardship of the more than 500 Nature Preserves and Land & Water Reserves in the state.

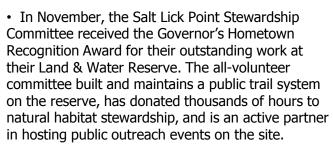




Photo courtesy Village of Valmeyer

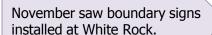
 Since 2009, Clifftop, IDNR and the Natural Resources Conservation Service have been working together to muster funding from a variety of federal sources to bolster conservation practices, largely on private lands, along the bluff land corridor. We are proud to report, at the end of 2012, we surpassed the \$1 million dollar mark in stewardship money, assisting 66 landholders on 3600 acres.

Snapshots from Clifftop Autumn events...

On October 20, Clifftop held its first annual Member's Day, "A Good Day at White Rock."



Clifftop was a platinum sponsor of the second annual Monroe County YMCA Illinois Ozarks 10K Bluff trail run held October 27 at Salt Lick Point Land and Water Reserve in Valmeyer.





White Rock Land a Water Reserve Boundary No Trespassion

The first prescribed burn of the season was at DauBach's on 11/25.



To view albums from these and other events, please visit our Facebook page at:

http://www.facebook.com/pages/Clifftop/162533970518561

If you haven't renewed your membership yet, so by January 31. We don't want to lose you!