



The Conservation Strip

John Marshall Soil & Water Conservation District

Of Fire and Quail

by David Bryan, Private Lands Biologist, NRCS/DGIF/VT

There is hardly a land management technique that stirs a more passionate conversation than prescribed fire. While natural resource professionals use this term to refer to the careful application of low intensity fire to the landscape to rejuvenate habitats and benefit wildlife populations, the general public often pictures in their mind a blazing forest fire scouring the dry hills of Southern California as hundreds of brave wildland firefighters scramble to put it out. Other landowners may simply hearken back to the old message they heard in grade school from Smokey Bear

– “Only YOU can prevent forest fires” – and immediately shut down the conversation, but once again natural resource folks will point out that Smokey’s message has changed of late as he now says, “Only YOU can prevent *wildfire*”. Note the key difference there.

So what do the wildlife think? Many wildlife species need so-called early successional habitats composed of native clump grasses, wildflowers and shrubby cover in order to reproduce and survive. Think of a wildflower meadow, native grass field, regenerating clear-cut or pine savanna and you’ve probably got the right idea. Northern Bobwhite quail frequently use these habitats to fulfil their yearly requirements. They will nest at the bottom of native grass clumps, utilizing the previous year’s growth to form a cave-like nest. Their chicks will brood in forb-dominated areas where wildflowers bring in insects and, due to their erect growth structure, allow the tiny birds to walk around on bare ground underneath. Coveys will spend the wintertime hiding in shrubby cover such as blackberry and greenbrier thickets or shrub hedgerows. A wide variety of other wildlife species such as White-tailed Deer, Wild Turkey, songbirds like the Field Sparrow and Prairie Warbler, and pollinators such as the Monarch Butterfly will also take advantage of these habitats.



Prescribed burning is a great way to keep habitat in shape. Photo: Lorien Koontz

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Mission Statement

Our Mission is to provide leadership, technical assistance, information, and education to the citizens of Fauquier County in proper soil stewardship, agricultural conservation methods, and water quality protection so as to ensure the wise use of the county’s natural resources.



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Vernal Pools: A Critical Wetland Habitat

By: Kris Jarvis, Conservation Specialist, John Marshall Soil & Water Conservation District

When envisioning a restored ecosystem teeming with life, a small depression in the woods doesn't typically come to mind. In August, I attended a two day wetland restoration workshop at Pinchot State Park in Pennsylvania that focused on vernal pools. Their size and aesthetics aside, vernal pools are critical habitat for the planet's declining amphibian population, and water quality powerhouses.

Wetlands of all sizes and types have been filled or drained for alternative land uses throughout the history of our country. Most wetland restoration projects take a significant amount of time and money. What I enjoyed most about this course was that we were able to make a real difference in the amount of frog and salamander habitat available in the park in just a couple days with a relatively small amount of funding.

Our primary instructor, Tom Biebighauser of the Center of Wetland Restoration and Training has worked on over 1,800 wetlands in the U.S., Canada and New Zealand. As first hand participants in

the restoration process, we benefitted from Tom's contagious enthusiasm, and learned the installation techniques he has refined over decades.



Construction of vernal pools at the Wetland Restoration Workshop.

A significant challenge in restoring or creating vernal pools is designing them to hold water for the appropriate amount of time for the target species to complete its development. The first day we improved an area used by wood frogs that was draining too quickly in the spring. Heavy equipment was needed to raise the bank elevation at the outlet end and create varying depths to the pool. Our class helped move wetland plants, downed trees and rocks to enhance the habitat. On the second day, we worked on a more remote site that was being used by marbled salamanders.

Through my participation in this course, I greatly enhanced my ability to identify soil type, as clay content is critical to holding water the desired amount of time. I can foresee opportunities for JMS-WCD and our riparian buffer restoration partners to add vernal pools to our efforts on several sites in Fauquier County.

District Strategic Plan Update

The John Marshall Soil & Water Conservation District has begun the process of updating our Strategic Plan. This plan is updated every four years and it lays out the direction that the District will take over that course of time.

Within the next few weeks, we will be releasing a survey that we are asking everyone to complete. Whether you are a regular cost-share participant, educational program participant, or have never participated in a District pro-

gram, we are asking you to complete this survey. A link to the survey will be posted to our website and will be open for a couple weeks.

In addition to the survey, we will be randomly selecting people to participate in short interviews in order to gain a better perspective on specific needs of the community and ways we can better deliver our programs.

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Unfortunately, the habitats described above are ever-changing, always facing competition from invading trees such as Sweetgum, Red Maple, Yellow Poplar, Loblolly and Virginia Pine. As such, in the absence of disturbance, they will all succeed into woodlands in time. And thus where prescribed fire comes in. While there are other tools in the toolbox ranging from disking to herbicides, prescribed fire is one of the cheapest tools available to landowners trying to manage meadow habitats, pine savannas, etc., covering a large amount of acreage in a relatively short amount of time.

So how exactly does burning benefit quail and other wild-life? First of all, a burn will eliminate the thick layer of thatch, pine needles or leaves that are often found on the ground, thus creating bare ground for quail and other species to travel around on. Fires also stimulate the germina-

tion of annual plants, especially quail favorites such as the leguminous Partridge Pea. Combined with the aforementioned bare ground, this creates optimal conditions for quail chicks to search for bugs in. And of course fire will also help in the management of annoying saplings that would otherwise take over the habitat and force quail out. Indeed, while many species reap the benefits of fire, quail are so closely connected to this management tool that Herbert Stoddard, a pioneer of modern quail management, referred to the Northern Bobwhite as the Firebird back in the early 1900s. If you've got rotational fire, it is very likely that you have the Firebird.

consider their goals when deciding on a cool season burn versus a warm season burn, the former being better for routine maintenance and the latter for sapling control. Burn block size and frequency factors also are very important. Managers should only burn a maximum of half their habitat per year to ensure a proper balance between nesting and brooding habitats, as quail use the previous year's growth for nesting. In terms of burn rotation, every acre should be burned every two to three years at the least. And there is much, much more to think about. The key is starting to look in that direction.

For those interested, the Virginia Department of Forestry (VDOF) is the lead agency in the Commonwealth for all things burning-related. Local staff are often available (for an acreage-based fee) to burn habitat projects including native grass stands or pine savannas. There are also a variety of private foresters in Virginia who offer burning services to private landowners. Of course, you can be-



This burn block may look black now, but in no time herbaceous vegetation will emerge, making excellent brooding habitat! Photo: Lorien Koontz

tion of annual plants, especially quail favorites such as the leguminous Partridge Pea. Combined with the aforementioned bare ground, this creates optimal conditions for quail chicks to search for bugs in. And of course fire will also help in the management of annoying saplings that would otherwise take over the habitat and force quail out. Indeed, while many species reap the benefits of fire, quail are so closely connected to this management tool that Herbert Stoddard, a pioneer of modern quail management, referred to the Northern Bobwhite as the Firebird back in the early 1900s. If you've got rotational fire, it is very likely that you have the Firebird.

Of course, there are dozens of other variables that go into burning for wildlife. Wildlife managers should carefully

come certified yourself by taking VDOF's annual Certified Prescribed Burn Manager's Program which reviews topics such as fire behavior, environmental effects of fire, and smoke management.

Are you interested in seeing and hearing the Firebird on your property? Please give us a call as we'd be glad to come out and discuss these management issues with you. Whether you desire to create new habitats or manage existing ones with fire, the Bobwhites should be thanking you soon. And the new and improved Smokey should be too! Remember, only YOU can provide prescribed fire!

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The Key is Soil Organic Matter

By: Roger Flint, District Conservationist, Natural Resource Conservation Service

Opportunity awaits the conservation farmers to improve their soils and farmland. Farmers and producers can increase their production while improving



Corn growing through a winter cover crop of rye.

their soils by keeping continuous cover on the land as well as leaving crop residue as possible after each harvest.

Now is the time to plan for winter cover crops of wheat, barley, rye, tillage radishes, crimson clover, vetch, etc. All these crops hold nutrients in place over the winter, while trapping moisture from snow and rains. The soil organic matter also provides soil structure which allows farm equipment to get on fields sooner in the spring.

If you would like more information on cover crops or other conservation projects, please visit the USDA Natural Resources Conservation Service, or John Marshall Soil & Water Conservation District office at 98 Alexandria Pike, Suite 31, Warrenton, VA 20186. You can also reach either NRCS or JMSWCD by calling 540-347-3120 x3.

Calendar of Events

October 10		John Marshall SWCD Office Closed	
October 12	4:00 PM	John Marshall SWCD Board Meeting	JMSWCD Office
October 29	9:00 AM	Area II Envirothon Training	Graves Mtn. Lodge
November 9	4:00 PM	John Marshall SWCD Board Meeting	JMSWCD Office
November 11		John Marshall SWCD Office Closed	
November 24-25		John Marshall SWCD Office Closed	
December 4-6		Virginia Assn. of SWCD Annual Mtg.	Roanoke, VA
December 14	2:00 PM	John Marshall SWCD Board Meeting	JMSWCD Office
December 26		John Marshall SWCD Office Closed	

Staying Connected: The John Marshall SWCD makes it easy to stay connected through social media. If you're on Facebook, "Like" our page to get updates on what's happening at the District.



The Conservation Strip is a quarterly publication of the John Marshall Soil & Water Conservation District. To be added to our email list, please send an email to Jennifer Hoysa at: jennifer.hoysa@fauquiercounty.gov.

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