



Blue Mounds Area Project

Promoting Ecological Restoration and Stewardship of Native Habitats

Spring 2020

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Did You Know...

Congratulations to this year's BMAP's Bur Oak Award recipients, Doug Steege and Kris Euclide. The Bur Oak tree represents the resilience, dedication, and fortitude that we see in the BMAP members who are honored with this award. It is presented to members who demonstrate a particular dedication to preserving native habitat on their property here in our part of the Driftless Area.

Bur Oak Award

Denise Thornton

Some BMAP members got to appreciate the preservation effort Doug and Kris have been making during a summer 2019 BMAP field trip to their property - over 185 acres, most of it being restored to native remnant dry prairie, bottomland, wetland, and oak savanna.

"I was a Prairie Enthusiast summer intern crew leader at one point," says Micah Kloppenburg, BMAP ecologist. "With a crew of five college interns, I had the opportunity to work on their property. Doug and Kris were often out there as well. It was impressive to see their dedication in the field."

Having acquired their land in 1978, Doug and Kris did their first prescribed fire the following year. In the early 1980s they transformed a large area of bottomland acreage into a CRP prairie planting.

Beginning in 2005, they began to more actively participate in restoration of their habitats - now home to over 150 prairie plant species and another 150 or more in their wetland habitat.

cont. page 3, see AWARD



BMAP's Bur Oak Award recipients, Doug Steege and Kris Euclide with Micah Kloppenburg, BMAP Ecologist.

President's Message

Amy Alstad, BMAP President

Greetings,

Winter is on its way out fast as I write this message. I just participated in my second prescribed burn of the year. More and more birds are returning every day, with spring blooms not far behind. Before long, we'll be deep in the fantastic frenzy of the growing season.

Micah is currently building out his list for recipients of site visits this summer. Contact him at ecologist@bluemounds.org if you would list to request a visit. The value of this core BMAP program was underscored for me last month, when a new BMAP member came up and introduced herself to me at one of our winter events. She had recently purchased a property



Photo by Eric Udehlofen

Amy Alstad, President

in the Driftless region, and had learned of our organization from the seller of her new property. In fact, the seller included a management plan and site visit report, written by the BMAP Outreach Ecologist 10 years ago, with the materials transferred in the sale of the property.

This story touched me for several reasons. First, the fact that the report was passed along to the

buyer suggests the seller viewed it as a valuable guide and resource – even a decade after it was written! Second, it illustrates the potential for continuing restoration legacies across multiple generations of conservation-minded landowners. And finally, it is a great reminder of the power of word of mouth – please consider introducing a friend or neighbor to BMAP to help us grow the community of private landowners pursuing restoration and conservation.

I am excited for all that is in store for BMAP in 2020. The board of directors is hard at work implementing our new strategic plan, which will position us to deliver bigger and better on our mission. We are truly looking forward to supporting and celebrating the conservation achievements of private landowners here in our corner of the Driftless.

Ecologist Report

Micah Kloppenburg, BMAP Ecologist



Micah Kloppenburg

During this winter's BMAP tour and potluck at Board Members Greg Jones' and Linda Millunzi-Jones' property (you all missed some delicious chili) we happened across some recent (as in summer of 2019) as-

pen windfall in their oak woodland. Four or five mature aspen trees had fallen in this holdout grove of no more than a dozen trees.

I was immediately excited by this unique opportunity to capture

the dynamics of plant community succession that follows such an impressive and impactful natural disturbance. What plants will take advantage of the newly available and unfiltered sunlight now gracing the forest floor? What tree seedlings and saplings are well situated to succeed into this canopy opening? And ultimately, which trees will be recruited to fill that canopy gap?

Collecting data that tells the story of plant community change on your property not only makes you a more attentive and knowledgeable land steward, it also gives you a secret look into the complex 5, 15, or even 50-year story of the natural world. The recorded data can create a vivid flipbook that chronicles plant succession over time, adding concrete metrics to our remembered images, and perhaps including literal photographs of the space.

Part of being an informed and attentive land steward is not only retroactively responding to plant community changes or non-native invasions, but also possessing a willingness to ask questions, experiment, observe, listen, and learn. Participating in citizen science or practicing some simple science at your own pace and on your home property (or better said, community) can truly help you connect with the land more deeply.

I recently attended The Prairie Enthusiasts annual conference and pulled together several inspiring examples shared by a few presenters that exemplify how a scientific approach helps us grow as land stewards. Scott Weber (of Bluestem Farm in Baraboo) surveyed prairie seedling germination and longer-term plant establishment in prairie

cont. page 11, see ECOLOGIST

BMAP On Line

BMAP's web site bluemounds.org

BMAP Facebook page where you can learn about upcoming and past BMAP events, plus relevant environmental news.

facebook.com/BMAPcommunity

BMAP's Facebook group where you can interact with other members, share photos, and comment about land restoration ideas and activities.

facebook.com/groups/BMAPcommunity

BMAP's monthly eBulletin, a great way to get announcements, habitat restoration tips, and other great BMAP-related information.

bluemounds.org/ebulletin.html

AWARD from page 1

They are helping to preserve the diversity of habitats that are less than 1% as prevalent today in Wisconsin than they were in pre-settlement times. Of the six species in the *Polygala* genus whose range includes south central Wisconsin, four can be found on their property. In 2008, in partnership with the Prairie Enthusiasts, they put together a management plan, and they established an easement so that their property is now protected in perpetuity. Their hope is to ensure stewardship in perpetuity as well, carrying on the great legacy which Doug and Kris have created.

Doug says, "We have learned a lot through the years. We appreciate this award, but we are all here to protect our precious natural resources. Together all of our efforts have significance."

"It's a communal effort," agrees Kris, and quoting Margaret Mead she added, "Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has."

I'll spare you the pun about our 2020 vision.

Nevertheless, for the last several months, your BMAP board of directors has been hard at work recommitting to our vision and mission statements, and working through an update of our strategic plan.

The overarching goal that prompted us to commit time and resources toward strategic planning was to build a stronger organization. Specifically, we sought to increase BMAP's external impact through expanded programming and strategic partnerships. In order to accomplish our priorities, we also saw a need to improve our internal health and resilience.

With the help of a top-notch facilitator, the BMAP board collected information from a variety of stakeholders and candidly outlined organizational strengths and weaknesses. Over the course of two planning retreats, we discussed and reviewed this information, eventually arriving at four priority areas which form the core of our new strategic plan. These priorities include:

1. Attract and retain members.
2. Offer high quality, relevant programming and support services that engage all members and encourage ongoing land restoration and protection.
3. Effectively and efficiently communicate to our members and potential members.
4. Strengthen internal capacity and capability in order to accomplish our priorities.

For the remainder of 2020, the board will be rolling up our



Photo by Jennifer Thieme

Launch of New Strategic Plan

Amy Alstad, BMAP President

sleeves and diving into implementation of our newly minted strategic plan. An overview of the strategic plan is posted to our website, www.bluemounds.org. We invite you to give it a look and share your thoughts with us. How do you see yourself reflected in the plan? Are there any parts that are particularly resonant or exciting? Are there any gaps in the plan that you'd like to see the organization address? Member feedback is welcome; please share your thoughts with us by sending an email to info@bluemounds.org.

As always, our purpose is to support the excellent conservation and restoration work of private landowners in southwest Wisconsin. Please let us know how we can help you! In return, as we launch our freshly revised strategic plan, please consider helping BMAP by giving a gift membership to a friend or volunteering your time and talents. Together, we can create a future where all private landowners achieve their conservation dreams.

You're Invited to... Review the strategic plan at www.bluemounds.org
Share your thoughts by email info@bluemounds.org

Gardeners, landowners and stewards of public land have all been forced to confront new invasive species of plants that suddenly appear and then proceed to take over anything from the corner of a flower bed to hundreds of acres of forest floor.

The culprits are often deliberately imported for a specific ornamental purpose but they quickly develop a mind of their own about where they can grow. In recent years, invasive species like garlic mustard and buckthorn have become real problems.

Imported species can have an advantage over local, native plants because they are new to the area and do not have any local insects and other animals who can eat them and no local bacteria or viruses that can attack them.

Allelopathy and Its Role in Wisconsin Plant Communities

Denise Thornton, Co-editor

Other qualities make a plant a good invader besides lacking any natural enemies in the new environment. They usually produce abundant seeds with great ways to disperse them. Think dandelions! They are fast growing and can grow under many different conditions. They may green up sooner and stay green longer than native plants.

And some of them have a secret weapon - toxins they produce that harm other plants trying to share the same soil.

Dr. Ken Keefover-Ring, assistant professor of botany studying chemical ecology and plant-animal interactions at UW-Madison discussed the ways some of these toxic invaders interact with native

Wisconsin plants in the first of the Blue Mounds Area Project winter lecture series on January 30th at the Mount Horeb Community Center.

“Plants need a certain amount of real estate to get the water, nutrients and light they need, and some send out a chemical to inhibit their competition,” said Dr. Keefover-Ring. The ability of plants to poison their neighbors is called allelopathy. He described how garlic mustard, buckthorn and walnut trees deploy this weapon.

Even a native species like walnut, a popular shade tree, highly valued for its hardwood, can be invasive by producing juglone, which can suppress and kill plants nearby. Plants that are sensitive include asparagus, cabbage, peppers, potatoes, rhubarb, tomatoes and a number of common garden flowers.

Buckthorn berries, bark and roots can cause severe cramping and diarrhea in humans and weaken birds. Studies have shown that their toxins affect amphibians as well. Chemicals in their berries are spread by bird droppings and can also inhibit the growth of native plants.

These days, garlic mustard is perhaps the most destructive of the plants in our area. This plant has disrupted the forest floor all over north America. It not only kills the spring flowers like trillium, Virginia bluebells, woodland phlox and Jacob ladder, it also kills tree seedlings so that the forest cannot reproduce.

The roots of many native plants form a mutually-beneficial relationship with mycorrhizal fungi in the soil which helps them obtain nutrients they cannot get any other way. Garlic mustard does not need this special fungal relationship and produces a chemical that keeps

other plants from using it.

Garlic mustard toxins creates dead zones where native plants cannot grow when it invades in ways that other invading non-native plants do not. A walk in any state park forest or natural area will show increasing areas where nothing is growing under the trees but dense expanses of garlic mustard.

Dr. Keefover-Ring had some advice and hope for those trying to eradicate all of these toxic invaders based

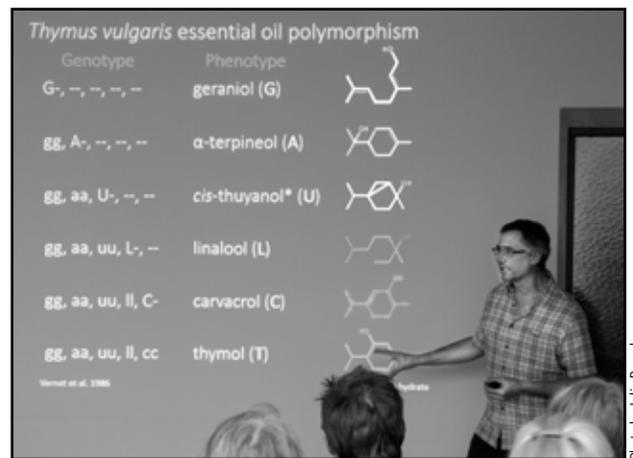


Photo by Julie Raasch

on recent research. In all three cases, it is important to remove all the parts of the plant that you can.

In walnuts, juglone is found in all parts of the tree but is most concentrated in the flower buds, nut hulls and roots, and those roots can extend beyond the area covered by the tree's canopy. In buckthorn, the drupes (fruit) and leaves are the most toxic part of the plant.

When removing garlic mustard, you must remove not only the seeds but all plant material. “Even when garlic mustard plants have not started to put out seed, the flowers can continue developing seed after the plant has been pulled, and the leaves and stems contain their toxin” Dr. Keefover-Ring warned. He recommended bagging all pulled garlic mustard and putting it in the trash.

cont. page 11, see ALLELOPATHY

Similar to Aldo Leopold's parable as he saws through the lived years of a "good oak", recounting a series of mirrored human stories, Jed Meunier looks to the growth rings in red pine to illuminate our Wisconsin fire history. His recommendation relating the past to the present? "We need more fire in more places!"



Photo by Julie Raasch

Speaking to a BMAP Winter Conservation Conversations audience on February 13, Meunier described how red and white pine forests were once a dominant woodland north of Wisconsin's Tension Zone, a climatic divide correlated to the range limits of many plant species that separates the state into two distinct ecological regions. As the third most dominant forest cover type, red and white pine forests accounted for nearly 9% of the state's pre-settlement forest cover. Today, says Meunier, "only 0.6% of intact pine forests remain, never having recovered from their logging histories."

This catastrophic decline is also attributed to widespread fire suppression following the violent persecution of indigenous peoples during European settlement and the industrialization and modernization of the 1900s. In fact, fire suppression is largely responsible for an observed increase in forest density (measured by stems per acre). Meunier told the surprised audience that Wisconsin forests are forty-seven times more

dense than they were historically! According to Meunier, "we should be burning 1-million acres per-year in Wisconsin" to maintain prairie, savanna, woodland, and barrens habitats (among others) that are fire dependent.

Evidence of fire derived from tree ring analysis informs how often and how extensive fire impacted our landscape, and how fire regimes changed over time as a result of colonialism and modernization. Cores from different trees collected in the same locale are aligned by unique patterns of tree growth that manifest as differ-

ences in the width between rings. Too much or too little precipitation, or incidence of fire is "marked" in a particular growth pattern of a tree's rings. Cores from trees of different ages can be aligned according to these telltale fire and climate markings to build a chronology of climate and fire events from the present day back through time.

According to Meunier "red pine is especially helpful in tracing Wisconsin's historical fire regimes" as red pines that are wounded by fire produce a large amount of resin and leave a marked fire scar. Even more impressive is that this 'journaling' of fire events is preserved in red pine stumps whose cores can be aligned and cross-referenced within a larger series of cores from living trees to draw a fire regime history here in Wisconsin that dates to the late 1500s.

Meunier and his team evaluated 60 different forest stands in northern Wisconsin, analyzed 3500 different red pine tree cores (many from stumps that were harvested during

European settlement), and detailed 700 fire events within their tree ring chronology. After cross referencing fire scars from stumps in a single location and refining fire scar incidence to fire scars that occur on 25% of individuals within a stand, Meunier's data indicated that fires were incredibly frequent, with stands recording an average interval between fires of seven years. Historically, in northern Wisconsin's roughly 2 million acres of red and white pine forest, a 100,000-acre area experienced fire every 6 – 13 years. According to Meunier, it is quite possible that closer to 500,000 acres burned at this fire rotation, depending on how conservative he is with analyzing the data.

Historical Fire Regimes of Wisconsin

Micah Kloppenburg, BMAP Ecologist

Along with building a comprehensive fire history for the Northern Hardwood Forest, red pine relicts (though rare and dispersed) south of the Tension Zone in the Southern Broadleaf Forest were also analyzed to reconstruct a fire history more relevant in our BMAP membership area. In addition to the timing of fire (frequency and return interval), fire scars identified in tree cores also describe the seasonality of fire occurrence. Meunier's data on historical fire seasonality was intriguing, with 44% of fires having occurred during the dormant season (through mid-spring), 44% during the growing season (late spring and summer), and the remaining 12% of fires having occurred during the fall.

With the majority of our prescribed fires being planned for spring days, Meunier led a lively discussion with his BMAP audience on what impact this lack of variability in our current

cont. page 13, see FIRE

Wildlife ecologist Caitlin Nemec has worked on federal, state and university research projects, including studying the Kirtland's Warbler (*Setophaga kirtlandii*), listed as endangered in Wisconsin. She spoke to BMAP members at the final Winter Conservation Conversation in Mount Horeb on February 27.

Birds In the Driftless: History, Ecology and Management

Denise Thornton, Co-editor



Nemec is also author of *A Wisconsin Bird Alphabet*, a collection of fun, informative poems and illustrations of bird species found in Wisconsin - with information on identifying markings, diet, habitat, and call mnemonics, published in 2017.

Nemec focused her talk on three cover types: grasslands, open woodland, and forest interiors, and the severe problem that habitat loss is presenting to the future prospects

for some prized birds species in the Driftless.

GRASSLAND

For grasslands, which include prairie, fallow fields and grazing, Nemec noted that many studies have shown that birds are in decline, and they point to habitat loss. "The birds just have nowhere to go," says Nemec. "Landowners may have an opportunity to do something about this."

The history of the Driftless until European settlement included a lot of fire. European settlement put an end to most of this fire regimen, which has meant negative changes for native birds. A snapshot of vegetation in 1832-1866 shows mostly oak savanna and prairie in our area. Since then the prairies have been put into agricultural use or have filled in with trees.



Photo by Julie Raasch

What birds have lost in terms of habitat are the size of quality tracts of land as well as connectivity. The Greater Prairie Chicken that used to live here year round in great numbers, now is found only in special areas in the center of the state where it has been reintroduced.

Restoration efforts face a Catch 22 in that habitat requirements and management needs differ greatly among bird species, and any management

action may benefit some species while reducing habitat for others. Nemec suggested land owners consider regional habitat goals and consider what species are particularly threatened.

Edge species like bobolink and quail use several habitats. But grassland birds can only use the inner portion of fully treeless areas. For them, tree lines and breaks in the grassland are detrimental.

When land owners evaluate their land, they need to consider the surrounding landscape and ask how their property fits into the larger area. If you have a small area of grassland surrounded by woods, grassland for birds may not be the best option for your property, says Nemec. You may need to manage for invertebrates instead.

According to an Audubon report, grassland species are among the most imperiled group of birds in the United States, and they have a very high rate of nest failure. They often come back to the same place every year, and if that area is being mowed during nesting time, that can be devastating.

Different bird species will have different thresholds of what they will nest in. Bobolinks need at least 10 grassy acres. The Henslow's Sparrow needs at least 100 acres of grassland with sparse shrubs and may only use the central 10 acres. The Eastern Meadowlark needs at least 60 acres.

Nemec suggested land owners can help by removing woody invasives and forbs. Cut down tree and brush stands that facilitate nest predation. Burn only every other year, or in patches to provide refugia for the invertebrates.

Other suggestions: cut hay only before May and after August (Not during the breeding season), and collect what you mow in parts of that area.

cont. page 12, see BIRDS

Greg Jones and Linda Millunzi-Jones led a BMAP tour and trail-building demonstration on their land February 15. Participants snowshoed on many of Greg's trails as he provided techniques and advice.

Trail building is second nature to Greg, having worked as a land surveyor in the City of Madison's Engineering Division for 30 years. He classifies his trails into three groups: primary, secondary, and tertiary, with the primary trail being the driveway. He advised everyone to learn about their county and township ordinances governing driveway specifications.

SECONDARY TRAILS

"The first step is to determine how you will use the trail," says Greg, such as for a fire break, hiking, gathering firewood, access to areas where invasives are being managed, or cross country skiing.

Ski trails will need to have run outs at the bottom of very steep slopes, and curves that are gentle enough to match the grade. Ideally, ski trails can be laid out so that they can be skied in both directions, which effectively doubles the length of the trail.

Make sure curves are gradual enough for any vehicle you plan to use on a trail. If you plan to pull a trailer, even more gradual curves will be necessary.

With prairies, it's worthwhile to put an 8-foot-wide trail around the entire prairie to serve as a fire break when doing prescribed burns. Just before burning, it's worth considering mowing the trail even wider. A common rule of thumb is to make your breaks two times as wide as the height of the fuels.

"A trail through the prairie can offer the opportunity to get right in there. I have a couple of run outs for skiing where you come shooting out of the woods and into the prairie. Otherwise I like to leave the prairie whole."

Greg advises planning any new trail through the woods after the leaves have fallen, so that you can see the layout and contours of the land. He suggests identifying points of interest, such as rock outcroppings, ancient oaks, water features, openings, and outlooks that you want to include along your trail.

Once you have chosen your points, it is useful to mark intermediate points with some lath stakes and ribbon. And be sure to look at the potential path from both directions. "It's amazing how different things can look from A to B than they do from B to A. A straight line is the shortest distance between two points, but seldom the most interesting. Curves along the trail help make it seem significantly longer because you can't see too far ahead."

Hilly terrain can present serious hazards that trail builders need to take into account. "An eight-foot-wide trail is easier to build with a tractor and a blade, but it's easy to tip a tractor over if there is a significant cross slope. If you have a steep hill, you may want to lay out a traverse to get up and down. This avoids steep grades, but puts the trail on cross slopes, and the switch backs can get tight. You will want the cross slope of your trail to pitch to the downhill side," says Greg.

Trail layout is determined by how it will be used. Choosing to go straight up and down a hill avoids the cross slope issues, but it will create a challenge for hauling big loads of wood or for skiing on.

"When crossing a ditch line or even a swale," says Greg, "you may need a culvert or small bridge. Without it, the trail will be a challenge during spring."

TERTIARY TRAILS

Tertiary trails are foot paths for single file hiking, between 24 to 30 inches wide. As with secondary trailmaking, start with your points of interest, but there is much more

flexibility in how they connect.

Be aware of the deer trails, and overlap with them at times. "You will find the deer love your cleared trails and they will start using them. They will help you maintain them," Greg says.

Trail Making Workshop

Greg Jones, BMAP Board Member



From left to right, Linda Millunzi-Jones, Greg Jones, Denise Thornton and Micah Kloppenburg

Design at least a portion of the trail to go across a slope toward the top of the hill, Greg advises. "Climb to an elevation and then maintain that elevation for as long as you can. Follow it back into a hollow and back out the other side. This sets up a great walk, but requires some work."

These trails need to be cut into the hill. Greg uses a grub hoe or mattock to cut the high side and pull it to the low side, thus making a flatter trail on the cross slope.

It is likely that you will be contending with erosion, especially on newly graded trails. Greg always puts grass seed on any bare soil.

cont. page 13, see TRAIL

For those who enjoy jumping into the deep end of the pool, the Wisconsin Coverts Project, a woodland wildlife management program for private land owners who want to increase diversity and abundance on their property, is a great way to go. My partner Doug Hansmann and I attended last summer and have been taking actions and making plans based on what we learned ever since.

Wisconsin Coverts Project: A Four-Day Immersion in Restoration

Denise Thornton, Co-editor

A covert (pronounced kuh' vert) is a dense thicket that gives shelter to wildlife, and the Wisconsin Coverts Project is aimed at people who want their woodlands to be more healthy and productive, to better care for the wildlife that takes shelter there.

For four days at the University of Wisconsin's Kemp Natural Resources Station on Lake Tomahawk near Woodruff, in August, participants take indoor classes on managing everything from large carnivores to woodland song birds to invasive plants. The classes are reinforced with field work.

"What makes Coverts unique is that it is a sleep-over workshop," says Jamie Nack, Extension Senior Wildlife Outreach Specialist at UW-Madison, who helps coordinate the program. "There is absolutely something really valuable in this immersion process."

"There are seven bunk rooms in the lodge," she continues. "We separate men and women, and you bunk with two to three other adults. We share meals, and everybody takes

turns with dish duty. There will be fireside programs and evening socializing. It's a nice, bonding camp feel among like-minded people."

GIVING LANDOWNERS THE BIG PICTURE

After attending the Coverts workshop last summer, Doug and I at home completely energized with our heads full of new action items. We've had our best winter ever working in our woods - like girdling non-oak trees for standing dead habitat - all generated by what we learned at Coverts.



Photo by Denise Thornton

Coverts workshop participants learning how to use live traps to inventory the small mammal population on their land.

Time spent in their new state-of-the-art classroom was balanced with field trips into the surrounding area to learn by doing. It's an information dump, and it flowed fast. Classes ran from right after a hearty breakfast to a final class around the campfire each night after a tasty dinner cooked by one of our teachers. All the instructors were well qualified and very approachable. And the opportunities to connect with other land owners and share challenges and approaches was invaluable.

SHARING WHAT YOU LEARN

The Wisconsin Coverts Project workshop is offered free of charge. Lodging, meals, and materials are

all paid for by workshop sponsors, who include: Wisconsin Sustainable Forestry Initiative (SFI®) Implementation Committee, The Ruffed Grouse Society/American Woodcock Society, University of Wisconsin Extension, UW-Madison Department of Forest and Wildlife Ecology, The Anne and Jason Spaeth Family, and Braun Woodlands.

"If you go through the program," says Jamie, "there is an expectation that you will develop a sound wildlife management plan for your land, then reach out and share the information and resources provided by Coverts with other landowners. Peer-to-peer learning is important and helps us spread our dollars, time and energy through train-the-trainers programming."

The Coverts program began in 1994 and has trained more than 700 landowners to be Coverts Cooperators who have gone on to influence the management of over a million acres in Wisconsin and neighboring states.

Jamie maintains a directory of past participants that helps all Covert participants, past and present, see who else is in their area, and who they can partner with to do things like offer a field tour together or visit each other's properties to exchange ideas.

"With the funding we receive we try to have as many properties represented as possible, but we also understand that spouses may want to attend," Jamie adds. "We allow spouses or other family members to attend, provided they also have an interest in reaching out to other landowners. We charge a \$100 stipend to offset some of the meal and lodging expenses when more than one person representing the same property attends."

Jamie says the workshop wealth of information is all online now. "It's a forest wildlife resource list that focuses on managing private lands,

cont. page 12, see COVERTS



Photo by Julie Raasch

The Wisconsin DNR updated its list of Wisconsin Restoration Contractors this March. <https://dnr.wi.gov/files/pdf/pubs/er/er0699.pdf>. The list is 19 pages long, but most people in the Southwestern Wisconsin section of the Driftless are familiar with some well-established companies, such as Quercus Land Stewardship Services.

“It’s inspiring that we have such a strong restoration industry in Wisconsin,” says Mike Healy, co-owner of Adaptive Restoration, another well-established land restoration and stewardship service provider located near Mount Horeb. “People in this part of the state are particularly lucky to have so many restoration contractors. What is also good is that even though there are multiple firms in this area, there is a large enough market that there is often more demand than supply. That has fueled growth in both our company and Quercus. It’s great that there are more and more people wanting to do thoughtful land restoration.”

What some people may not know yet is that Quercus is in the process of a smooth transition to new management. Founder Jim Elleson has passed the reins to new owner/ecologist Alex Wenthe.

Quercus’ roots stretch back to 2003 when Jim began land restoration

part time. Trained as a mechanical engineer, Jim remembers, “I started out thinking I was going to save the world by convincing people to use less energy, and switched over to thinking I was going to do it through native restoration.” He left his day job and went full time with Quercus in the fall of 2004.

Like many folks, Jim bought his own land with the idea of taking care of it before he had a good understanding of how to do that. “I took a lot of classes and went to many workshops early on when I was preparing to start the company,” he says, “but I realized that the best way to learn is to get out there and do it - especially restoration work. Even now, there are not a lot of written resources available and I don’t consider all of what is out there to be real accurate.”

His first projects included clearing boxelder from a friend’s overgrown pasture and pulling sweet clover at Black Earth Rettenmund Prairie for The Prairie Enthusiasts, working with his sister and a few part-time high school students.

Fast forward to today when Quercus has 15 full-time employees and is looking to expand. “I’m well satisfied with the crew we have developed, and that we can offer them good wages and decent benefits.

The challenge in the early years was to have year-round work, and pay enough to have good people stay. We have done well at reaching that goal of attracting and keeping quality staff members.”

Prescribed burning in the spring is the most demanding six weeks out of the year and it’s a disproportionate share of the total work for the year. “We spend a lot of money on training, which is ongoing throughout the year, and it all pays off in the short burn season. The amount of equipment and people allows us to send people in different directions or mobilize a lot of people for a large burn,” says Jim.

Quercus Land Stewardship Services Transitions to New Management

Denise Thornton, Co-editor

Knowing he would not be able to do such rigorous work forever, Jim started looking for a good person to pass Quercus on to a few years ago. “Alex was the ideal person,” Jim says. “It has worked out pretty smoothly, and since the first of this year, Alex is the owner, and I’m under contract as a senior executive to assist with the business.”

“Jim and I have been working together for quite a while,” says Alex. “I started at Quercus in 2011 as a technician after completing a conservation biology degree at UW-Madison. Jim is a good mentor and easy to learn from, so I learned a lot quickly in those early years.”

Alex broadened his experience, getting a master’s degree in ecological restoration while working for

cont. page 13, see QUERCUS

The Prairie Enthusiasts hosted their annual conference at UW-Platteville Feb 29. This location allowed many of our BMAP members to attend. I ran into a number of friends over the course of the day – individuals I had met on site visits, and others I knew from years of attending our summer potlucks or the winter conservation conversation series. It was with great pleasure that I participated in a panel, Common Problems and Solutions among Conservation Groups, discussing the various strategies that conservation groups use to keep their message in the hands of their members, and grow membership to stretch their message to new audiences.



BMAP was well represented at the TPE conference, including: Front row: Paul Kaarakka, Cindy Becker and Micah Kloppenburg. Back row: Anna Healy, Amy Alstad and Denise Thornton.

Report from The Prairie Enthusiasts Conference

Cindy Becker, BMAP Board Member

Four organizations varying in scale and scope filled out the panel including: The Prairie Enthusiasts, represented by Executive Director Chris Kirkpatrick; Mississippi Valley Conservancy, represented by Executive Director Carol Abrahamzon; Blue Mounds Area Project, represented by Outreach Ecologist Micah Kloppenburg; and Driftless Area Land Conservancy, represented by myself, as the Southwest Wisconsin Grasslands Network Coordinator.

I was amazed by and in total respect of the various and creative strategies organizations used to engage landowners. We all know that conservation does not happen within a year; it takes cultivation of relationships – both with landowners and the land, but also, connecting the landowner with the resources to improve their land stewardship practices. This cultiva-

tion takes years, decades, families – the length of time depending on the people and their perseverance.

Each organization on the panel had various ways to develop that cultivation – through outreach, communications, member benefits, land protection options, and land management support. I feel that this type of information sharing – between organizations and with transparency to members – is a wonderful way to expand the dedication and passion of the local non-profit organizations committed to land protection.

Panel Members:

The Prairie Enthusiasts:
theprairieenthusiasts.org

As a side note, BMAP member Doug Hansmann was awarded the first-runner-up prize for the conference end-of-winter haiku contest with this offering:

**Thawed, dry and barren
 Rebirth held dormant below
 Lay down a fire line**

Mississippi Valley Conservancy:
mississippivalleyconservancy.org

Driftless Area Land Conservancy:
driftlessconservancy.org

Blue Mounds Area Project:
bluemounds.org

Other conference highlights included a keynote address by Dr. Lytton John Musselman, Professor of Botany at Old Dominion University in Norfolk, VA. who provided a look at how burning is used along the Southeast US coast, where long leaf pine remnants are benefitting from prescribed fire.

Concurrent lecture sessions included Prairie and Woodland Restoration Compared by Stephen Packard, author of The Tallgrass Restoration Handbook: for Prairies, Savannas and Woodlands; Timber Rattlesnakes and Hill Prairie Management in Northeast Iowa by Iowa DNR Private Lands Biologist Greg Schmidt; Restoring Conservative Species: Where ecology, economics and mythology collide by Scott Weber of Bluestem Farm; and Exploring Methods and efficient timing for control of invasive plants by WI-DNR State Natural Area Volunteer Coordinator Jared Urban.

Photo by Doug Hansmann

plantings. His observations inspired him to rethink seeding timing (thumbs-up for dormant seeding), seeding density (lower seeds per square foot), seed mix design (max out those conservative species that are the hallmarks of high-quality remnants!) and the awesome possibilities of multi-year seedings (invest in adding seed over consecutive years rather than making one definitive seeding in the first year).

Stephen Packard shared how important it is to prep a savanna or woodland site with a fall burn before seeding the area to increase seed-to-soil contact and light availability. Similarly, in a case study described at the conference, a group of volunteers raked away the leaves before they seeded in savanna and woodland species and then: 1) re-leaved the areas or 2) left the leaves off. Unsurprisingly the seeded areas with no leaves had impressive germination rates while germination in the leaf-on areas was noticeably inhibited. The comparison pictures themselves were truly worth the 1000 words it would take to summarize this story.

And in an inspiring talk, WI DNR Ecologist Armund Bartz shared the simple joy that comes with surveying for the invertebrate species that may be calling your prairie home.

Please feel free to follow-up with me if you would like to talk further on what Citizen Science opportunities or other site-specific studies may work for you and your property. Better yet, let's work this into a summer site visit that I could make to your property! Email me at ecologist@bluemounds.org for more information or to arrange a site visit.



Violet wood sorrel (*Oxalis violacea*) is a beautiful, diminutive, dry-prairie perennial that can be identified by the quintessential shamrock-shaped leaves characteristic of the sorrel genus. One small difference is that the violet wood sorrel's leaves are thicker than its woodland counterparts and, in fact, fold-up at night! With the prairie at its shortest in the spring, the beautiful lavender bloom is among the first to grace our open prairies and certainly catches the eye of many an invertebrate, as well as the passing hiker.

While most guides detail the bloom period for *Oxalis violacea* as April through June, in early to mid-August I've often observed a few plants with a set of newly unfurled flowers in and amongst the dense foliage of little blue-stem, sideoats grama, and prairie dropseed. What makes this late-summer bloom surprisingly unique is that at this stage the plant is completely devoid of leaves or other vegetation save for the solitary umbel of flowers!

When you are out this late spring, mentally mark any patches of violet wood sorrel you come across and plan a few return visits in August. I promise that you too will delight at this *deja vu* second blooming.

ALLELOPATHY from page 4

The good news is that once the plants have been removed, the toxins remaining in the soil will not last forever. "There are lots of microbes in the soil that are evolving to eat these toxins," said Dr. Keefover-Ring, "and freeze/thaw conditions destroy the compounds. They are also photo-reactive so they are nuked by sunlight."

"While they are growing they are constantly putting these compounds in the soil, but their legacy won't last long once they are out," he said.

Also, because garlic mustard was introduced to North America in the 1860s, there are some areas where its long term conditions have been studied. Dr. Keefover-Ring noted that research shows that over time,

Did You Know...

that in any given population (i.e. cluster) of violet wood sorrel plants, a few will bloom twice in a growing season?

Micah Kloppenburg, BMAP Ecologist

garlic mustard in an area starts producing less toxins.

It takes energy from the plant to produce these toxins, and once they have eliminated the competition, those plants that produce less toxins are more likely to survive, so the toxicity of garlic mustard decreases over time. That means that once an area of long-term garlic mustard growth is removed, the soil will recover more quickly.

"That's good news for native plants. It's a slow process, but the soil microbes are getting more used to garlic mustard," Dr. Keefover-Ring concluded. "And in sites where garlic mustard has been growing for 50 years, the plants are producing less toxins. In younger sites, researchers see the native plants tanking, but in older sites, valuable mycorrhizal fungi in the soil are rebounding.

BIRDS from page 6

Some birds travel on the ground when they leave their nest, and too much debris impedes their movement. Other birds like the debris to nest in, so try to have some areas of both. Do only low-density grazing with refuge patches, and where possible, try to work in modules of 20 acres or more.

OPEN WOODLANDS

Some birds require the grassy understory of open woodlands. Nemeč suggests removing fast growing trees and buckthorn and honeysuckle, invasive forbs and thick ground cover. Fire, every other year mowing, and low density grazing with refuge patches in areas of 20 acres or more is what is needed in open woodlands as well.

FOREST INTERIOR

Here again, the size, quality and connectivity of this habitat are what's important. In many forest stands, a lot of the trees are crowded with young trees, but many birds need large, dead trees. Fragmentation by roads and agricultural

development are a negative factor, and garlic mustard attacks the biodiversity of the forest floor through the suppression of fresh tree growth and changing the soil microbiome. Deer have been changing the forest floor as well.

Scarlet Tanager and Cerulean Warbler are benchmark birds that need at least 100 acres of undisturbed forest. Pileated Woodpeckers, and in fact all woodpeckers, need a supply of large, standing-dead wood as places to roost and nest. The Tufted Titmouse nests in woodpecker holes, so they need what woodpeckers need.

Veery, *Catharus fuscescens*, favors dense understory and leafy low growth - five feet or lower. They are often caught in an ecological trap of buckthorn and honeysuckle. Birds nest there, then the buckthorn and honeysuckle lose their leaves, and the birds are exposed to predation.

How can you help? Nemeč suggests removing buckthorn, honeysuckle and garlic mustard. Having open areas in the woods is important. But leave some standing-dead wood. Adding oaks can help to regenerate

the health of the forest. Use plantings to bridge gaps between existing woodlands.

Taking the long view, Nemeč urges inviting others to visit your land, especially youngsters. "If nobody know about these areas, birds and plants - who will care? Who will protect it?"

Resources:

"Managing from a Landscape Perspective: A guide for integrating Forest Interior Bird Habitat Considerations and Forest Management Planning in the Driftless Area of the Upper Mississippi River Basin". Editor and Contributing Author: David C. Wilson.

https://www.researchgate.net/publication/319991650_Managing_from_a_Landscape_Perspective_A_Guide_for_Integrating_Forest_Interior_Bird_Habitat_Considerations_and_Forest_Management_Planning_in_the_Driftless_Area_of_the_Upper_Mississippi_River_Basin_Vers

Grassland Birds: Fostering Habitat Using Rotational Grazing, UW Division of Extension.

COVERTS from page 8

estate planning, climate change adaptation on our property and lot's of other information."

Anyone can access the on-line list of "Wildlife & Forest Management Resources for Private Landowners" from the Wisconsin Coverts Project home page or by the link <https://forestandwildlifeecology.wisc.edu/coverts/wildlife-forest-management-resources-for-private-landowners>.

HOW TO APPLY

Applications to attend the Wisconsin Coverts Project workshop are due June 15. You can download a copy at the Coverts website forestandwildlifeecology.wisc.edu/coverts.

"It is not first come - first served," says Nack. "I get some applications in the fall, but I set them aside and don't review them or make decisions till June 15."

The application asks you about your involvement in different organizations, your outreach potential, how comfortable you are with different things, the acreage you own."

"We evaluate the acreage and what the outreach potential is," says Nack. "The average attendee is involved in a few environmental activities and organizations, they interact with other people and own 40-60 acres.

We also have some people who are absentee owners of 1,000 acres. We

look for the opportunity to make an impact, and we have had outreach professionals like wildlife biologists and foresters who may not own any property."

"It can be difficult to commit to four days," says Nack, "but when we ask for feedback, people never want us to change the format."

Coverts is an amazing opportunity for people who want to restore their land and help others do the same. We came home with new goals and new techniques and a re-energized sense of enthusiasm. Doug and I can't recommend this program enough. Feel free to reach out to us if you have questions.

prescribed fire activity might have on our prairie, woodland, and savanna plant communities. He highlighted how prescribed fire seasonality impacts topkill and resprout of woody species including oak, honeysuckle, and buckthorn. Meunier provided one staggering statistic with audible gasps from the audience: some of the hottest spring fires stimulated a 150% increase in the number of woody stems.

Meunier's preliminary data indicates that dormant season burns (early to mid-spring) appear to produce low topkill and (as a result) few resprouts; early growing season burns resulted in high incidence of topkill and strong resprout response; and, growing season (summer) burns had superior topkill effects with few resprouts. In fact, Meunier shared that "summer burns were observed to knock back brush by 80% or more." Fall burns were more moderate in their effects, with the degree of topkill and resprout response falling somewhere between summer and spring effects.

Regardless of timing, not surprisingly, topkill of woody species increases with fire intensity (temperature), and flame length serves as a good proxy for temperature. Of particular note though was that once an early threshold temperature had been reached for topkill, there was little change in the magnitude of topkill until a fire reached the most extreme temperatures.

All in all, Meunier sent a clear message about the important role of fire in managing our Wisconsin landscape: "We just need to burn stuff."

BMAP Summer Events Cancelled

To protect the health of our members and community, we have made the difficult decision to call off our traditional summer series of property tours and potlucks due to the COVID-19 pandemic. We thank the three landowners who had previously agreed to host tours this summer, and we can't wait to share their wonderful properties with you next year. In the meantime, we hope you are all safe and well, and taking some comfort in the familiar rhythms of spring.

TRAIL from page 7

He also suggests creating some check dams. This could be mounded soil or a tree limb oriented diagonally across the trail pointing down slope. This will channel water along the dam and helps to keep water from running down the length of your new trail.

All trails need maintenance. "If you are not going to maintain a trail, don't bother building it," says Greg. "Nature will reclaim it in a year or

two." Trails in prairie are grass, just like your lawn, and need to be mowed often, if you want to use them.

Greg mows his woodland trails three to four times a year. "Walk them first looking for sticks and debris," he advises. "It's lovely to stroll trails through the woods on a summer evening with no worries of poison ivy, picking up burrs, or getting scratched by some rubus. And we rarely pick up ticks on the mowed trails."

QUERCUS from page 9

the State Natural Areas crew and then as a program coordinator with a private lands program for the Wisconsin DNR's Bureau of Natural Heritage Conservation.

"I called Jim to ask if I could use him as a reference," says Alex. "Jim said, 'Sure, but if you are looking for a job, we should talk.' We did. We agreed to work together and see how it went. We've progressed to me buying the business while he stays on for a while to help me learn the business ins and outs. It's an interesting industry. We get to do some pretty amazing work and do it with great people."

Quercus has continued to grow and has a new location in DeForest now. "Last year we had a great burn season, and we are looking forward to the same this year," says Alex. "We are planning to have three crews, which is exciting. Jim and I joke that it's both exciting and terrifying."

"We have a lot of really enthusiastic young people now who come, like I did, out of UW-Madison, or Stevens Point, even Iowa State, looking for their first job in the field. We expected there would be some turn over when you are hiring young people, but we have found that if you hire good people and treat them well, they will stick around for a while, and that helps a lot."

"I'm pretty proud of the reputation and capabilities of Quercus," says Jim. "And I'm confident that Alex is going to carry that forward. I really appreciate BMAP. A lot of BMAP members are our customers. When I get new land owners who want to learn how to take care of their land, I point them to BMAP. I find BMAP members tend to be some of the more well-informed land owners that we work with."

"We are excited to partner with BMAP in every way we can," agreed Alex.



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Our Mission:

Blue Mounds Area Project is a community-based organization that seeks to inspire, inform and empower private landowners in the southwestern Wisconsin region to enjoy, protect and restore native biodiversity and ecosystem health.

Our Objectives:

- 1) Promote understanding, appreciation and conservation of native woodlands, prairies, wetlands and savannas and their special species in an economically viable manner, through community outreach programs and private contacts.
- 2) Act as a clearing house for information from people and organizations involved in preserving native biodiversity including information about plant, animal and habitat identification, management, restoration, seed sources, native plant nurseries and invasive, nonnative species.
- 3) Encourage cooperative, volunteer restoration and management activities.
- 4) Identify public and private land use changes that may affect ecosystem health and promote community-based stewardship of the unique natural heritage of the Blue Mounds and the southwestern region of Wisconsin.

The Blue Mounds Area Project Newsletter is published three times yearly. We welcome your comments, submissions, and advertisements.

Deadlines for submissions for 2020 newsletters:

Spring Newsletter — March 15, 2020

Summer Newsletter — September 1, 2020

Fall Newsletter — November 1, 2020

Send submissions to: newsletter@bluemounds.org

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Blue Mounds Area Project

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*Kris Euclide, co-recipient of this year's BMAP Bur Oak Award,
provides us with this thought:*

**"Never doubt that a small group of thoughtful,
committed citizens can change the world;
indeed, it's the only thing that ever has"**

— Margaret Mead



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