March 2026: Blue Mounds Area Project eBulletin

Conservation and Community. Together.

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Outreach Ecologist's Updates

Sam Anderson

Hello BMAP,

Though we've gotten some March snow, spring is stepping into full swing once again! Burn season is well on its way for many of us. For those of us who have never burned before, Wisconsin Prescribed Fire Council, Southern Driftless Grasslands, and The Prairie Enthusiasts are offering opportunities to get better acquainted with our best tool for managing grasslands. There are also abundant opportunities to help manage public properties all throughout the region, including Dane County and the Ice Age Trail Alliance.

Our Winter Conversation series was a great success this year, with talks from the Savanna Institute, Peter Marshall and Sylvia Marek, and The Driftless Area Land Conservancy. With the growing season rapidly approaching, our summer events are also just around the corner. Join us for an excellent series of property tours are walks throughout the Blue Mounds area.

I am also starting to schedule summer site visits with BMAP members. If you would like a consulting visit and site report tailored to you and your property, fill out our Site Visit Questionnaire or email me at ecologist@bluemounds.org.

Prairie Pasqueflower (Pulsatilla nuttalliana) - Credit: Sam Anderson

Prairiesmoke *(Geum triflorum)*- Credit: iNaturalist user kallummcdonald

If you have any land management questions, I am always happy to communicate via email or over the phone if you want to discuss invasive plants, prescribed fire, or plant ID. BMAP can always use your support, either through donations, attending community events, or volunteering as a member of our Board. If interested, contact Board President Greg Jones or info@bluemounds.org.

Sam Anderson
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BMAP Merchandise now available!

A portion of every purchase goes directly to supporting BMAP and our mission.

BMAP
BLUE MOUNDS AREA PROJECT
CONSERVATION & COMMUNITY. TOGETHER.

BMAP Membership Renewal

Thank you to all the BMAP members that have renewed their membership for 2026! BMAP is entirely funded by the commitment and generosity of our members, making every donation and membership extremely important to our organization. If you are unsure, you can always contact us directly to confirm your membership status.

BMAP has a range of membership options to match your commitment to our mission and community. Thank you for your continued support.

Upcoming BMAP Events

Swamp Milkweed *(Asclepias incarnata)* - Credit: iNaturalist user sciencegirl02 (CC: no rights reserved)

BMAP Summer Events

We have some excellent events coming up this season! Most of our summer events involve light to moderate hiking on maintained trails, so hiking poles, outdoor clothing, and sun protection are encouraged! Events are also followed by snacks and socializing, courtesy of BMAP

Walk With a Geologist - Pleasant Valley Conservancy
Saturday May 30
1pm-4pm
4554 Pleasant Valley Rd, Black Earth, WI 53515, USA
Leader: Ken Wade

Join BMAP member and local naturalist Ken Wade as he leads us through the geological and glacial history that shape Pleasant Valley Conservancy, one of the older restored oak savannas in Wisconsin

BMAP Property Tour - Ken Wade & Pat Trochlell
Saturday June 20
9am-12pm
10747 Moyer Rd, Blue Mounds, WI 53517, USA

Join us in touring the lands stewarded by Ken Wade and Pat Trochlell. Ongoing collaborations with the Prairie Enthusiasts, Dane County, and other local organizations are aimed at restoring and protecting this diverse range of southern WI plant communities just north of Blue Mounds State Park

BMAP Property Tour - Kurt Peters & Elizabeth Hopp-Peters
Saturday July 18
10am-12pm
N6405 County Hwy A, Argyle, WI 53504, USA

Join us for a tour of 75 acres stewarded by Kurt Peters and Elizabeth Hopp-Peters. Their restored prairie occupies a sandy former pasture, while recent work supported by NRCS and local restoration contractors has focused on restoring oak woodlands and oak savanna.

BMAP Property Tour - Debbie & Peter Manke
Saturday August 15
10am-12pm
5566 Pine Rd, Black Earth, WI 53515, USA

Debbie and Peter Manke balance their time restoring their remnant oak woodland, promoting their restored tallgrass prairie, and nurturing young oaks within an old pine plantation. Join us in touring these habitats at varying stages of restoration!

Other SW Wisconsin Events & Resources

Know of a local event that might be of interest to BMAP Members? Send the information to ecologist@bluemounds.org

Ice Age Trail Alliance Events & Workdays

If you are looking to get to know the natural communities of southern WI or are hoping to build skills in land management, the IATA has a weekly hikes and workdays in the Blue Mounds area throughout April and May.

Dane County Parks Events

Dane county parks has a whole host of educational events and restoration workdays for folks interested in enjoying and restoring grasslands and woodlands.

The Prairie Enthusiast Workdays

TPE regularly hosts work days throughout Wisconsin, but the Sauk-Empire chapter meets regularly in our local area! Join for a day of meeting like-minded volunteers that support TPE properties

Naturalist's Notebook

Gaps in our understanding of pre-settlement oak savannas

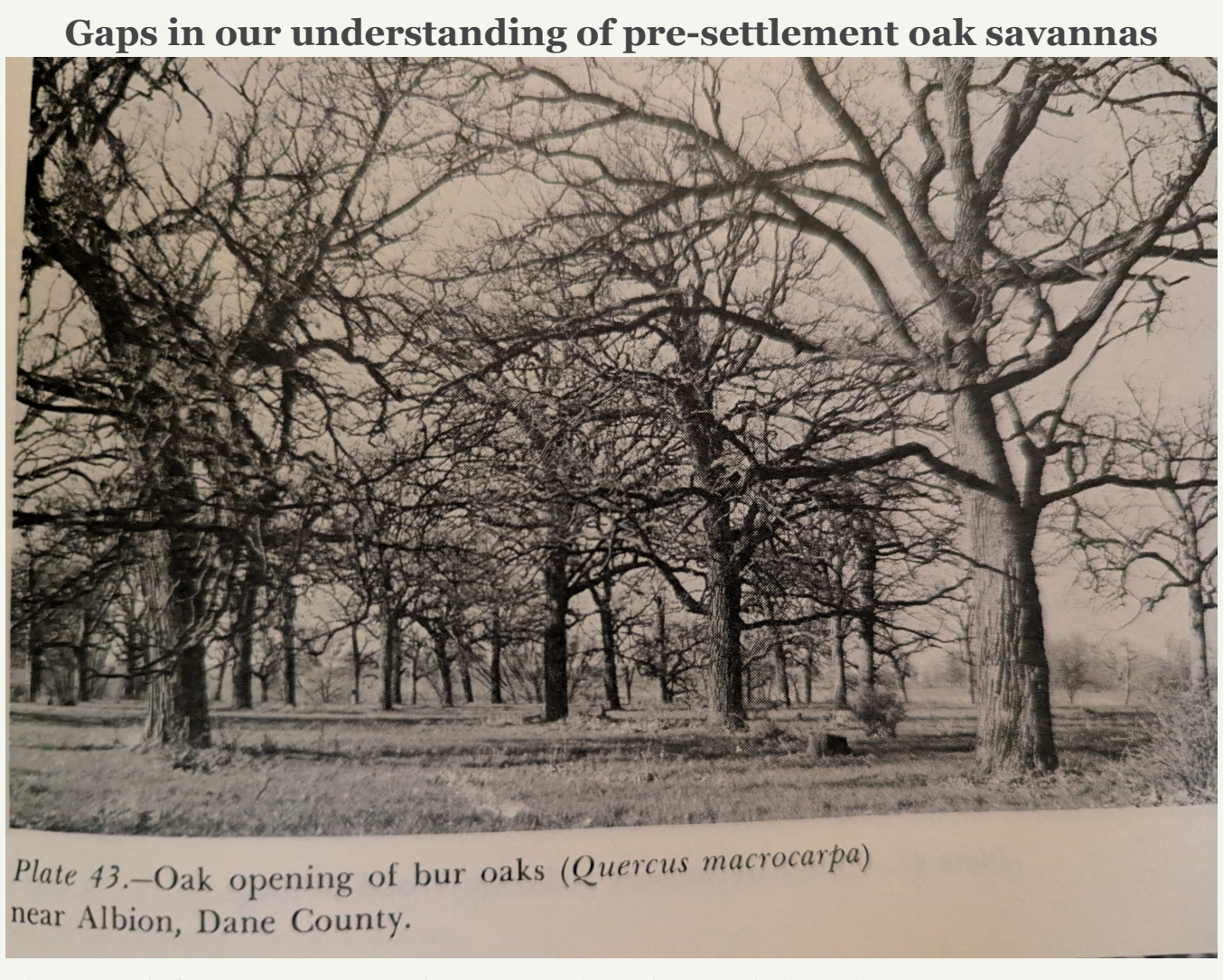

Plate 43.—Oak opening of bur oaks (*Quercus macrocarpa*) near Albion, Dane County.

Photograph from *Vegetation of Wisconsin* by John Curtis (1959).

In Wisconsin, few ecosystems capture our attention like oak savannas. Open-grown oaks and diverse prairie flora are hallmarks of these communities, all shaped by regular, low-intensity fire. Many landowners and stewards in Wisconsin currently work in oak woodlands and oak-dominated systems with a goal of restoring them to a savanna-like structure. With examples like Pleasant Valley Conservancy or Indian Lake County Park, long-term and more recent savanna restoration projects provide excellent guidance for managing these fire-driven systems.

That being said, less than 1% of the oak savannas that once covered 5.5mil acres of our state remain (Curtis, 1959). The savannas that do remain have likely endured decades of grazing, invasive species, and an absence of fire. As a result, there are large gaps in our collective understanding of oak savanna ecology. While we may never resolve these open questions, looking at historical resources and acknowledging our limited sample size of remaining oak savannas can provide new perspective on these cherished systems.

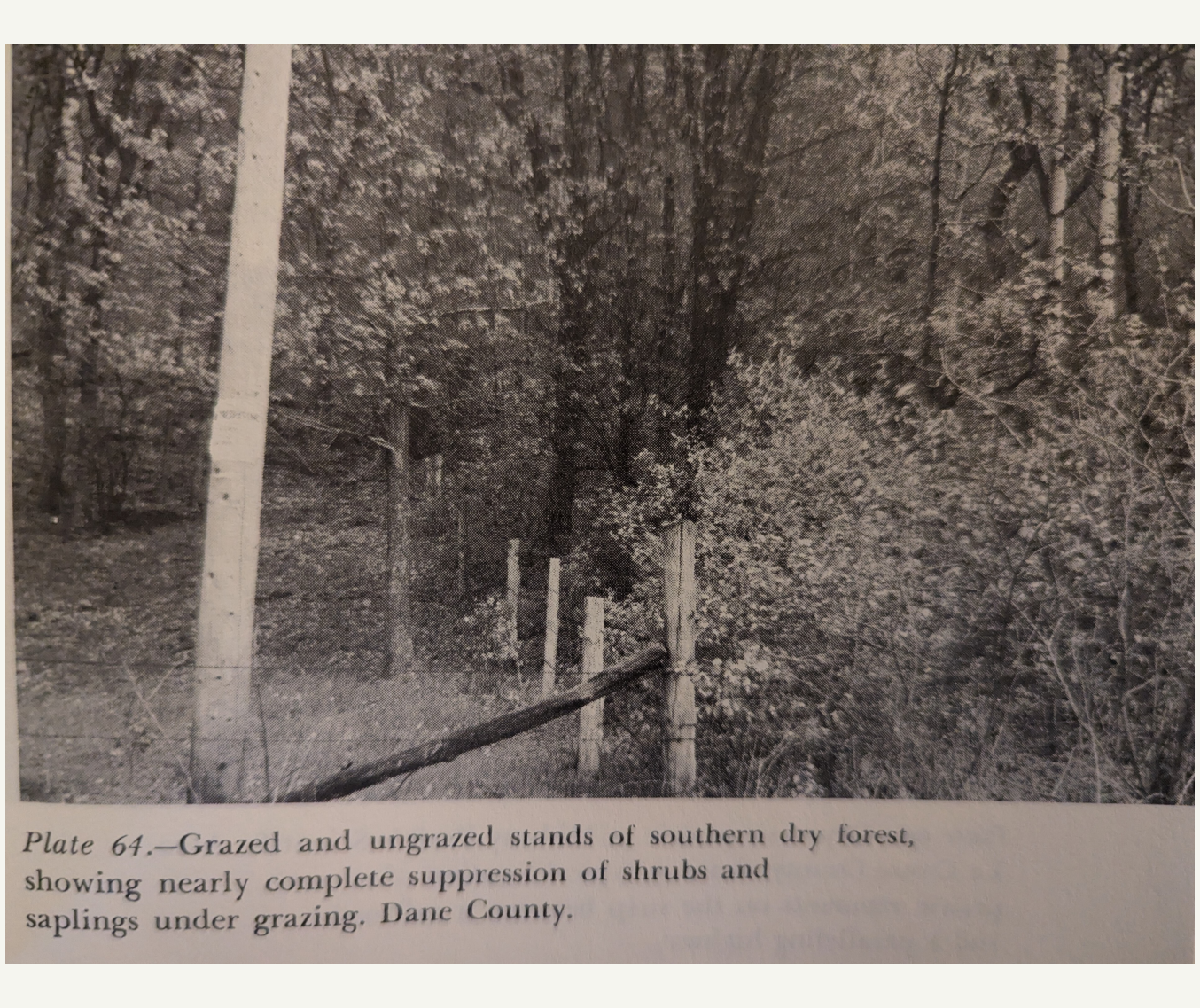

Plate 64.—Grazed and ungrazed stands of southern dry forest, showing nearly complete suppression of shrubs and saplings under grazing. Dane County.

The images are from Curtis' *Vegetation of Wisconsin* (1959). *Savannas, Barrens, and Rock Outcrop Communities of North America* by Anderson, Fralish, and Baskin (1999) is also a great reference for these communities.

The savannas that survived settlement

Dry Soil Savannas

Most surviving oak savannas persisted on the land that was not amenable to cropping or pasturing livestock. These sites typically were steep, with thin soil and outcrops of limestone or dolomite. Other examples can be found on the rockier soils of glacial moraines or topographically difficult areas to access like river meanders or hilltops. Examples of these restored savannas include Pleasant Valley or Parish Oak Savanna. These savannas are identified by old white or bur oaks with a open, wide canopy alluding to a sunnier past.

Oak Barrens

More common in the sandy soils of central Wisconsin or the sand terraces of our major rivers, oak barren communities are characterized by communities dominated by red, black, or pin oak, as well as a major, diverse shrub layer. White oak, bur oak, and swamp white oak (Quercus bicolor) veterans could also be found in these communities, particularly in barrens near major rivers.

Since oak barrens occur on sandier soils, these areas were passed over by settlers searching for more fertile soils. However, later settlement and development often led to these communities being plowed, grazed, and settled. As a result, fire suppression and woody encroachment commonly pushed oak barrens towards becoming a dry forest habitat.

The restoration of these savanna and barrens remnants by current and previous generations of land stewards has been the difference between persistence and extinction for these imperiled ecosystems. However, these dry oak savannas and oak barrens were not the only plant communities historically considered savanna.

The savannas most affected by settlement

Mesic (Black soil) Savannas

At the time of settlement, oak savannas with characteristic open canopies and herbaceous understories were often documented on sites with loamy, deep soils characteristic of more mesic prairie. These black-soil prairies were even used as an identifier of sites ideal for raising crops like wheat. John Curtis, in *Vegetation of Wisconsin*, alludes to farmers plowing right up to the base of oaks in savannas without disturbing their deep taproots. Since these savannas overlaid ideal soil for farming (Shepherd 1850, Little 1861), they were the first to be converted to row crops and agriculture. The mesic savannas that did not get plowed were used extensively for pasture, as the dappled shade, grazing, and stream access were ideal for cattle

Lowland/ Riparian Savanna

Open grown swamp white oaks can still be found in bottomlands near Wyalusing, the lower Wisconsin Riverway, or other major rivers like the Chippewa River. As fire became more infrequent on our upland prairies and woodlands, riparian areas that also regularly burned underwent the same encroachment and growth of the woody understory.

Brush Prairie

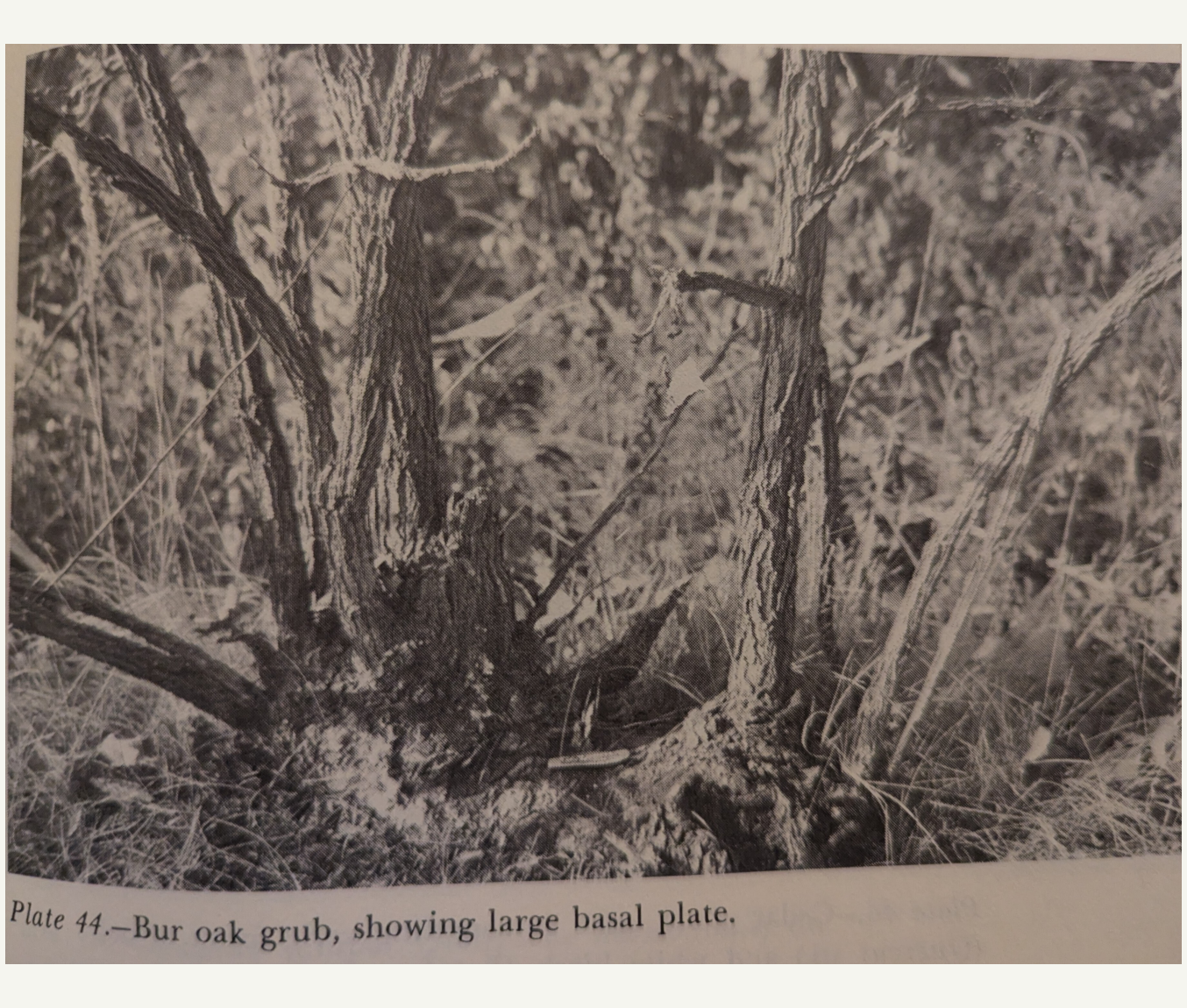

Plate 44.—Bur oak grub, showing large basal plate.

Beyond the large overstory oaks we think of in savannas, John Curtis and colleagues like Grant Cottam and John Bray identified another form of oak occurrence in grasslands: brush prairies, which were sometimes included in a general category of oak barrens. While brush prairies often overlayed sandier, drier soils, many were noted on more loamy substrates on sites that burns on an annual basis (Curtis 1959). The oaks and fire resistant shrubs of brush prairies were often so small that they were hidden by the dense prairie vegetation, but their short stature was not for lack of age (Curtis, 1959, Bray 1960, Anderson & Bowles 1999). The woody plants would regularly die-back above ground, while the root systems survived to resprout. As a result, some oaks had a 'base-plate' that could be as large as a meter in diameter. Brush prairies often have a large cohort of black oaks and hills Oak, but other woody species characteristic of prairies like New Jersey Tea, were also known to have this distinct resprouting strategy.

Two factors led to the demise of *old-growth* brush prairies. The oak grubs (mostly likely from the German verb for digging 'graben') were dug out of the ground by farmers and homesteaders to make way for fields, homes, and pastures. These small oaks and shrubs could have been decades or centuries old, and their unique root anatomy make their physiology, growth, and reproduction something we can only guess at. Brush prairies also rapidly changed in the face of fire suppression. Without regular, top-killing fire, oak grubs quickly grew to overtop the herbaceous plants, causing brush prairies to transition to oak woodlands similarly to oak barrens. The late Tom Brock ruminated on this fate for some of the young oak grubs that grew in the annual fires early on at Pleasant Valley. The digging of oak grubs by settlers, coupled with fire suppression make old-growth brush prairies grown on loamy soils a rare savanna system.

Fortunately, the management of oak barrens in Wisconsin is restoring the conditions that support the formation of brush prairies once again. Regular fires at sites like the Mazomanie Oak Barrens and Mukwanago Oak Barrens are fostering diverse oak barrens and brush prairie once again.

Gaps in Savanna Ecology

Our understanding of savanna plant communities come from the work of plant ecologists in the 1940's and 1950's like Cottam, Bray, and Curtis. These scientists documented the structure of the oak canopies, the variation and prevalence of shrubs like Grey Dogwood, Leadplant, New Jersey Tea, and American Hazelnut, as well as the diverse prairie flora found throughout these savannas. This work is foundational to our understanding of oak savanna plant communities, but this data was also collected roughly 80-90 years after European settlement. The original notes of these scientists acknowledge how pasturing and lack of fire had a significant impact on the savannas they studied.

Likewise, we have no data on the composition of pre-settlement mesic or riparian savanna composition (Curtis 1959). Did there understories match the composition or patterns documented in dry-slope savannas that survived? Was their composition more similar to mesic and wet prairies, with some woodland flora in the deepest shade and wetland flora in the most saturated substrates? What types of ecosystem services, bird communities, or insect populations utilized these oak-dominated systems?

Many aspects of pre-settlement Wisconsin will always be outside our ability to restore or replicate. Invasive species, extinctions, habitat fragmentation, and old-growth dynamics are all persisting issues that will take generations to address, if they can be addressed at all. But by documenting and observing how individual species and entire communities respond to our management, we will continue to get glimpses into how pre-settlement ecosystems might have looked and functioned. We are lucky to have a wealth of experienced land managers, stewards, biologists, ecologists, and organizations that passionately protect and study Wisconsin ecosystems. The restorations we begin now will someday be old-growth prairies and savannas, though I imagine Wisconsin will be a considerably different place in a century or two. Such timelines are a good reminder that documenting our work and progress is an important resource for the next generation. Just ask anyone who still reads Tom Brock's blog!

BMAP on Facebook

The Blue Mounds Area Project Facebook page website is a good place to find information about upcoming events, but it's a one-way flow of information. Did you know we also have a Facebook group? Joining the BMAP Facebook group is a great way to connect with other BMAP members. To facilitate engagement, we'll soon begin posting regular conversation starters.

At any time you can also post:

- **Restoration-related questions**
- **Requests for help with burns**
- **Extra seeds or plants to share**
- **Photos of what's growing in your prairie or woodland**
- **Anything else that relates to ecological restoration in WI**

To join the group, visit the group and click Join Group. The group is open to all landowners and allies in the Driftless Area of WI or surrounding areas who are working to restore native biodiversity and ecosystem health.

Make a donation

The 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.

Thanks to all our members for your support!

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