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July 2026: Blue Mounds Area Project eBulletin

Conservation and Community. Together.

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Outreach Ecologist's Updates

Sam Anderson

Flowers of Poke Milkweed *(Asclepias exaltata)* - Credit: Sam Anderson at the property of BMAP members Ken Wade and Pat Trochlell

Whorled Loosestrife (*Lysimachia quadrifolia*)- Credit: Sam Anderson, also at the Wade/Trochlell property

Hello BMAP,

I hope you are staying cool as our summer heats up! Stormy weather has brought us abundant rain, making the grasslands explode with color and activity. As we entire high summer, we can start gathering seed from our early flowering species, while beating back those invasive species before they go to seed themselves. Summer work is full of cutting, pulling, spraying, and sweating! The key to a productive summer season is knowing when to apply the right intervention at the right time. This involves knowing your target species and keeping any eye on key life stages. I'm always happy to help troubleshoot management or ID bizarre plants, so don't hesitate to reach out (ecologist@bluemounds.org) with any questions or observations!

We are now in the swing of our summer event season, and we have an excellent line-up of BMAP events on both public and private lands. Beyond BMAP, groups like Natural Resources Foundation of Wisconsin and Dane County Parks have plenty of field days planned. These events are great for getting to know new plants, new habitats, or learning how to manage invasive species.

My field season is filling up quickly, but I still have some availability for site visits in August, September, and even October. 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.

Thank you for finding the time in your busy summer season to continue to support BMAP. By being an active member, donating, and attending our events, you help BMAP continue to support and empower landowners in southern Wisconsin to take care of our great state!

Have a fun and safe Independence Day! Happy 250th!

Sam Anderson
Outreach Ecologist
ecologist@bluemounds.org

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

Tradescantia ohioensis - Credit: Sam Anderson

BMAP Summer Events

Summer event season is upon us! 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

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.

Walk with a Naturalist - Vermont Church

Saturday August 1
10:00 AM – 12:00 PM
9886 Vermont Church Rd, Black Earth, WI 53515, USA

This 105 acre property contains 35 acres of prairie, woodland and 20 acres of wetland with hiking trails winding throughout. We'll see these diverse habitats and hear about their community stewardship from church representative, Greg Herrling.

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!

Walk with a Naturalist - Blue Mounds State Park to Parrish Oak Savanna

Saturday August 29
12:00 PM – 4:00 PM
Dane County, Moyer Rd, Vermont, WI 53517, USA

A joint BMAP event with The Prairie Enthusiasts, this 5.5mi through-hike starts at Blue Mounds State Park, moves through Pleasure Valley Conservancy, and ends at the TPE Parrish Savanna. A great chance to enjoy the end of the growing season!

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

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Naturalist's Notebook

Tussock sedges and Ants: Unassuming Engineers

Bent-spined Acorn Ant (*Temnothorax curvispinosus*) are a common species in older savanna restorations and woodlands (Menke et al, 2015) - Credit: iNaturalist user antjesus

By now, most naturalists and outdoor enthusiasts are aware of ecosystem engineers or keystone species. These are organisms that dramatically shape the structure, diversity, and productivity of their habitat. More often than not, beavers or bison are used as classic examples of keystone species, changing the shape of our water ways or the structure of our grasslands. Other common examples include extinct species like passenger pigeons, whose migratory nest 'cities' could change the structure of a forest overnight.

While we often appreciate these large, charismatic keystone species, it can be hard to translate the principles of keystone species to modern land management, especially for landowners and stewards working on small parcels or isolated remnants.

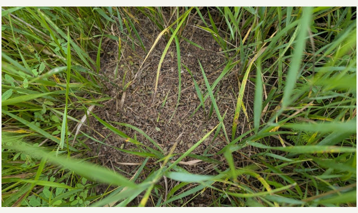
So I decided to highlight a couple of examples of some smaller ecosystem engineers that you can find in Wisconsin's grasslands: native ants (family Formicidae) and tussock sedge (Carex stricta). These engineers not only promote biodiversity and carbon and nutrient cycling, they can be acknowledged, supported, or even incorporated into land management at any scale.

Ants in Grasslands

Uncertain field ants (Formica incerta) were most prevalent in remnants when surveyed across a range of grassland/savanna restorations (Menke et al, 2015) - iNaturalist user sus_scrofa

Ants play an important role in the grasslands and savannas of the Great Lakes region by serving several roles. Ants disperse the specialized seeds of many of our spring ephemerals called eliasomes. Ants like those in genus *Formica* serve as predators of many insects that feed on native plants, and many ants feed directly on the nectar or foliage produced by native flora. Ants are also one of the most abundant animals on the planet, making up roughly 10% of the invertebrate biomass in the soil globally (Rosenberg et al, 2023). This makes ants an appealing food source for other insects, small mammals, amphibians, and birds like the Northern Flicker.

Ants also physically and chemically alter soil structure around their nests, improving aeration and drainage while moving large amounts of aboveground biomass into deeper soil layers. This alteration of soil structure creates microsites in grasslands that have been has also been correlated with higher local plant diversity and density (Peterson et al, 2011). Ant diversity and abundance has also been shown to be correlated with the age and status of restored prairies, with older larger restorations tending to have more, larger ant colonies. Ants build various nest structures, including thatch mounds, nests in leaf litter, or entirely subterranean nests.



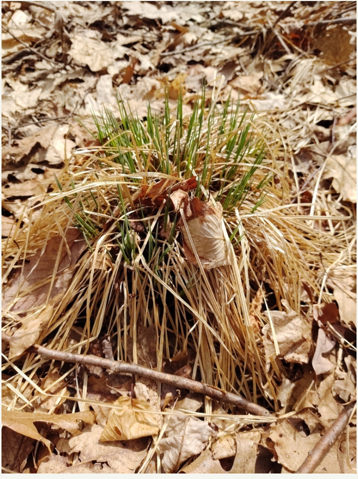
A thatch nest of prairie mound ants (*Formica montana*). - iNaturalist user mettcollsus

In building large ground nests, ants translocate resources into the soil day and night. With soils being one of the largest carbon reservoirs on the planet, and ants being one of the most abundant terrestrial invertebrates, ants have a huge impact on the carbon storage capacity of soils. A recent global meta-analysis showed that ant activity increased soil organic carbon storage by an average of 22% when compared to ant-free areas nearby (Wang et al, in press).

Black carpenter ants (Camponotus pennsylvanicus) are a species that thrive in the dead wood of savannas and open woodlands

From a stewardship perspective, managing for a diversity of plants in a grassland or savanna also likely promotes native ant populations as well, though environmental conditions like soil temperature and vegetation cover are also important for ants (Paraskevopoulos et al, 2022). Surveys have shown that savannas have a higher richness of ant species than prairies, mostly due to the presence of woodland ants that prefer nesting in wood (ex: *Camponotus pennsylvanicus*) (Menke et al 2015). If you have mound forming ants like *Formica montana*, consider observing their behavior over the growing season and in future years. Colonies often 'bud' and form new colonies, often only 3-10m away (Henderson & Jeanne, 1992). Ant communities can also change through time, with younger restored prairies and savannas having different species than those found in older restorations or remnants, meaning some species of ants may be candidates for indicator species when identifying remnants (Menke et al, 2015).

Tussock sedge



A small tussock forming from *Carex stricta* - iNaturalist user Peakaytea

Tussock sedge (*Carex stricta*) is one of the most charismatic wetland plants in Wisconsin. Often found in sedge meadows wet/wet-mesic prairies, tussock sedges allocate a large portion of their biomass to their roots (Lawrence & Zedler, 2011). Over time, years of root biomass and foliage build up to create small mounds that are elevated above the saturated substrate (Lawrence & Zedler 2013). These mounds can be upwards of 50 years old, with most tussocks being about 8-10 inches tall. However, some tussocks up to 1m in height and 1m in diameter have been documented (Costello 1936). Some estimates show tussock sedge can increase the surface area of their habitat by 40%, physically making more space available for other plants to grow (Doherty & Zedler, 2014).

Flowering *Carex stricta* - iNaturalist user meaningful_name

This additional surface area creates heterogeneity wetlands. The tops of tussock mounds are often dry, aerated, have high organic content, and are brightly lit (Lawrence & Zedler, 2013; Doherty & Zedler 2014). The sides and slopes of tussocks are well-drained, but they still create a niche for some mesic or dry-mesic species to grow. Once established in a wetter grassland community, tussock tops can serve as little pockets of dry or dry-mesic prairie, the sides of tussocks can serve as bare soil, well-drained microsites, and off-tussock areas still provide niche space for wetland vegetation. Even more, tussock diversity changes over the growing season, with tussocks reaching peak coverage and diversity in late Summer/early Fall.

Tussock sedges rising above the saturated soils of a woodland seep - iNaturalist user Danielatha

Tussock sedges not only improve biodiversity, they sequester a large amount of carbon into the substrate. Tussocks are roughly 40% carbon by mass due to the high percentage of duff and root/foliage detritus (Lawrence & Zedler, 2013). Tussocks contain roughly 10% of the carbon found int wetlands in which they occur (Lawrence & Zedler, 2013). In the same study, tussocks also showed slower decomposition rates that adjacent low-lying areas, highlighted an additional contribution to local nutrient cycling.

If you are interested in tussock sedge management, planting plugs of *Carex stricta* has generally been more successful that applying seed. Tussock sedge are a wet/wet-mesic species, meaning upland plantings will likely be unsuccessful. Fortunately, tussock sedge do well with higher nutrient loads, so many saturated substrates can be suitable potential habitat.

Here is an informational pamphlet on propagating tussock sedge from the UW-Arboretum

Years of foliage and root tissues built up this tussock - iNaturalist user meaningful_name

When it comes to keystone species, we can often become fixated on more visually apparent examples like mature bur or white oaks. We might notice the browsing behavior of white-tailed deer, or wonder what impacts elk herds had on the prairies, savannas, and woodlands of Wisconsin's past. While these are important things to consider in land management, the impacts of more unassuming keystone species deserve our attention as well. Much of the literature that I cited comes from excellent naturalists and scientists in Wisconsin and surrounding states. Taking a page from their book can give us a renewed understanding of how so many of our native species can promote the diversity, functioning, and resiliency of Wisconsin's ecosystems.

Literature Cited/Additional Reading

A special shout-out to Joy Zedler's work with tussock sedge right here in Wisconsin. It is an excellent example of good science informing good land management.

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BMAP on Facebook

The Blue Mounds Area Project 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 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:

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**

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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