
THE BLUE MOUNDS PROJECT NEWSLETTER

**Seeking to Inspire, Inform and
Empower Private Landowners in the
Southwestern Region
Of Wisconsin to Enjoy, Protect
and Restore Native Biodiversity
and Ecosystem Health**

Winter 1999

Message From the President

Dean Lesser

First things first. I hope you all had a great holiday season and are now enjoying the wonderful Wisconsin landscape on skis or however you like to take it in. I was in Mexico during the blizzard, but I was very happy to get back to the snow after a hot, snowless holiday.

Welcome to the new year and all that BMP will bring to you during 1999. As an organization we are growing in exciting ways. We look forward to increasing our programming, seeking additional grants, and the further development of our organizational structure. The latter may seem like an unexciting endeavor, but it will really take us far in our ability to fulfill our mission. The board of the BMP is committed to working very diligently on getting our administrative structure securely in place. This feels like a sign of our growth and maturity as an organization.

Now it may seem like talking prairie at this time of the year is a little strange, but the roots of those lovely grasses and flowers are sleeping only to get ready to use their well rested bodies to explode before we all know it. So, let's be ready. On behalf of the board I invite you to find a way

to be involved in your organization at whatever level you are able. You can join a committee or attend board meetings to offer opinions, suggestions, or support. We want you to be part of the growth process. We are a fun group of like minded people who enjoy sharing our common interest. Please take time and read the newsletter carefully and see what we have in store and what we are up to. Get INVOLVED in 1999.

Save This Date!!!

Mark your calendar for March 13th, the date of the Annual BMP Membership Meeting. This important event will shape the future activities and direction of your organization. Please attend. See the Events Calendar for full details.

Your Library is Open

Program and Education Committee

Mike Anderson, Wendell Burkholder, Marie Wilhelm

Your library is now fully stocked - check it out! In addition to the 18 titles we purchased we also have received complimentary copies of *Managing Habitat for Grassland Birds*, *A Guide for Wisconsin*, by David Sample and Michael Mossman and *The Flora of Sauk County* by Ken Lange. We'll also be receiving courtesy quarterly newsletters from The Nature Conservancy, The Prairie Enthusiasts, and Wild Ones.

Board Meeting Schedule

Your voice is important; this is your organization and we value your input. Please attend a board meeting:

March 2, 6:30 pm, Mt. Horeb Community Ctr.

April 6, 6:30 pm, Mt. Horeb Community Ctr.

May 4, 7:00 pm, Mt. Horeb Community Ctr.

June 1, 7:00 pm, Mt. Horeb Community Ctr.

Ecologist's Report

Bob Wernerehl, BMP Ecologist

From July 13th to October 29th I completed 37 site visits totaling 4,130 acres, an average of 112 acres per visit. I visited properties in Dane, Iowa, LaFayette, and Richland counties. There are 20 landowners waiting for site visits in 1999.

For each site visit, I prepared a written, one or two page Site Visit Report. These reports include a list of the various plant communities found and recommendations for management. The Project currently has known populations of five plant species of special concern, a state ranking just one less than threatened. These plants are butternut, twin leaf, upland boneset, violet bush clover, and Christmas fern. Twin leaf occurs on two of our sites, butternut on several. No doubt many more rare plants remain to be found.

More than a third of the sites visited had prairie remnants. Some sites had only one area with remnant prairie plants, others had several. Some remain quite diverse. These are generally suffering from lack of fire and invasion by brush and small trees.

On almost 50 percent of my site visits, I found oak savanna remnants. There are two common types of these remnants represented. One is what I call a "structural" oak savanna. In this case, there are large scattered oaks as in an original savanna, but the ground layer of vegetation is now mostly of European origin. They have been maintained by grazing and occur mostly on limestone bedrock. The second type is the black oak savanna which is strongly associated with St. Peter sandstone bedrock. This bedrock occurs both north and south of the Military Ridge (Hwy. 18). These savannas occur mostly on south facing slopes and have been maintained by fire, grazing, and low soil nutrient levels. One type of this sandstone savanna is what I call the "Huckleberry Glade." These are relatively open under a moderate tree

canopy. The ground cover is primarily huckleberry and Pennsylvania sedge. This type of vegetation is more common further north in the central sands region of the state. I have heard two reports of landowners 20 to 50 years ago burning these areas specifically to encourage huckleberries, which they gathered for pies and jam. I have no doubt that there are some unique insects here waiting to be found by the first person to study these areas.

About one out of five sites I visited had good grassland bird habitat. All of those sites have the potential to greatly improve this habitat for birds. Grassland birds aren't fussy about grass. They'll take any kind, European or native. But they are fussy about the presence of trees and shrubs, so removal of these, especially along fence rows, can really help our grassland birds. Some of you received the new DNR publication "Managing Habitat for Grassland Birds, A Guide for Wisconsin." This should help in our efforts to boost these interesting native species, many of which have seen steep declines in the last 20 years.

Threats to bio-diversity within our member's land includes: invasive species, lack of fire, over-browsing by deer, and excessive growth of trees, both in former savannas and in fields that would make good grassland bird habitat.

I went back and looked at surveys done by Brian Pruka, our previous ecologist. I added these to what I have done and came up with some very impressive numbers. I could find information about 83 landowners who have had site visits. This group of our members owns over 9,036 acres of land with an average of 109 acres per landowner. This is a startling 14 square miles of land! Just think if that was all in one block how big that would be. It also means that our "little" project has grown to be a potentially large force for bio-diversity on the landscape of Southwestern Wisconsin. 46 of the sites were in Dane county, with 20 of those in Vermont township. 31 sites are in Iowa county. The other six are in Richland,

Grant, LaFayette, and Green counties.

I recommend that through June of 1999, stress be placed on bird and frog surveys and spring plants in mesic woods. These inventories would greatly increase our ability to answer the question "how should this land be best managed for bio-diversity?"

A frog survey could be interesting. Blanchard's Cricket Frog (see illustration) populations have been in steep decline over all of southern Wisconsin during the last 20 years. Of all Wisconsin reptiles and amphibians, the cricket frogs have shown the greatest decline. The remaining populations are all in Iowa, LaFayette, and Grant counties. Hopefully we can find some sites with a population of this rare frog.

Thank you all for sharing an interest in this project. I'd like to especially thank all of you who hosted me on site visits. We had a wonderful time making great discoveries, and learning and observing.

Blanchard's Cricket Frog
(Normal size is 0.6 to 1.5 inches in length).

[illustration here]

Membership Committee Update

Vicki Harris & Jim Zerwick

1998 was a very good year for membership growth. From 95 paid members a year ago, we now have 142, a 49% increase! However, only 79 of these members joined or renewed during 1998, so we need to hear from those of you who joined over a year ago and have not renewed. Please

check the expiration date on the newsletter mailing label to see if that's you. Thanks!

We also want to send a big **Thank You!** to those who have given an extra donation to the BMP since our last newsletter:

Mike Anderson, Fitchburg
 Alan & Sandy Bemis, Spring Green
 Paul & Kathy Burkholder, Redondo Beach, CA
 Wendell Burkholder, Madison
 Nan Cline & Barb Sheldon, Highland
 Harold & Faye Cook, Mt Horeb
 Robert Cox, Madison
 Mary & Gary Fritz, Belleville
 Jane & Seth Goodman, Verona
 Bob & Donna Huntington, Mazomanie
 Maggie Jones, Blue River
 David Ladd, Dodgeville
 Wayne Otto & Diane Hammer, Verona
 Doug & Kathy Robichaud, Mazomanie
 Ted Ross & Virginia Noerr, Rockford, IL
 Carroll & Pam Schaal, Mt Horeb
 Ron & Paulette Smith, Verona
 Percy Werner, Milwaukee
 Bob Wernerehl & Ann Ramminger, Barneveld

We also wish to thank two contributors who may not have been publicly thanked before because they were either "charter" member/donors of the BMP back as far as 1996 or because we missed them in the last newsletter:

Iowa-Grant High School Environmental Club
 Richard & Judy Kelly, McFarland

Many thanks to all of you! (If you were inadvertently left off the list, please let us know).

Name Change Update

In the last newsletter, we discussed our concern that the Blue Mounds Project name is confusing and misleading to people who are not familiar with

our work. We also mentioned that because of this concern we've been considering changing our name. We asked for your comments on our current name and suggestions for a new name. Many thanks to the fine folks who responded to our request and sent in the following suggestions for a new name:

- Prairie Restoration Project
- Prairie Restoration Partnership
- Woodland and Prairie Neighborhood Project
- Prairie Landowner
- Natural Landscape Cooperative
- Natural Landscape Cooperative of Southwestern Wisconsin
- Native Landscape Cooperative
- Southwestern Wisconsin Landowners Association
- Private Land Stewardship Group
- The Bur Oak Society
- Landowners Conservation Organization
- Landowners Conservation Group
- Land Conservation Organization
- Your idea here ...

Please give this important issue your full consideration. We will be discussing it during the March 13th Annual Meeting at which time we will narrow the available choices down to three. We continue to welcome your comments and suggestions. Either bring them to the March 13th Annual Meeting or send them to: BMP, PO Box 332, Mount Horeb, WI 53572 or via email at burroak@itis.com.

Calendar of Events

****BMP Annual Membership Meeting****

March 13, Saturday, 9:30 to 11:30 am

Mt. Horeb Community Center

Don't miss the annual BMP membership meeting. It promises to be an enjoyable mixture of business and pleasure. We'll start with short, summary reports from the president, treasurer,

and ecologist which will inform you of our accomplishments during 1998 and our plans for 1999 and beyond. We will also be discussing the possibility of changing our name (see related article). Bring your questions, comments, ideas, and friends. Your input will help shape BMP's future.

After the business meeting Mike Mossman, a biologist for the WDNR, will present a talk entitled "**The Prairie and Oak Savanna Landscape Through Time**". Mike will take us back in history through the descriptions of early explorers who traveled southern Wisconsin in the early 1800's including Henry Schoolcraft, G. W. Featherstonhaugh, Juliette Kinzie, John Muir, William Rudolf Smith, and others. A highlight will be slides of the drawings of early geologist David Dale Owen. These unique slides and descriptions paint a clear picture of the landscape of southern Wisconsin 160 years ago and show how European settlement brought vast change to the land. Mike Mossman is the author of a series of articles on early explorers and naturalists, is an expert ornithologist, and co-author of "Breeding Birds of the Baraboo Hills" and "Managing Habitat for Grassland Birds - A Guide for Wisconsin". Refreshments provided.

The annual meeting will adjourn in time for you to attend the Prairie Enthusiasts Annual Banquet (see announcement below).

Directions: The Mt. Horeb Community Center is located in the lower level of the Public Library, 107 N. Grove Street, Mt. Horeb, one block North of Main Street. Call (608) 277-9960 for more information.

11th Annual Prairie Enthusiasts Banquet

March 13, Saturday, 1 pm to 8 pm

Platteville, WI

A tradition for enthusiastic prairie enthusiasts. An enjoyable combination of workshops, chapter presentations, raffles, silent auctions, and a buffet dinner (with vegetarian option).

Workshops topics include: Grassland Birds and Their Management; Status and Distribution of Prairie Insects and Other Animals of the Chicago Region; Plants of the Oak Savanna; and Controlling Exotic Species. There will also be a workshop for children (age 5-10). Coffee and snacks available throughout the afternoon, buffet dinner begins at 5 pm, cash bar from 1 to 5 pm. Limited space. The cost is \$15.00 (members) or \$20.00 (non-members) and includes workshops, snacks, coffee, and buffet. Call (608) 375-5271 for registration and additional information.

1999 Native Landscaping Conference
March 20, Saturday, 9 am to 4:15 pm
Madison, WI

Plenty of good information for land stewards of all types and experiences: restoration from the ground up; controlling weeds; plant propagation; fire management and alternatives; savanna and woodland stewardship; ferns; attracting butterflies; phenology; displays; vendors; and much, much more. Co-hosted by the UW-Madison Arboretum and the Madison Chapter of the Wild Ones. \$22.00 or \$20.00 for Member Friends of the Arboretum. Call (608) 263-7888 for registration and additional information. UW Madison, Memorial Union, 800 Langdon Street, Madison.

Prairie and Savanna Butterflies
April 10, Saturday, 10:00 to 11:30 pm
Mt. Horeb Community Center

Join us for this colorful presentation by Ann Swengel, vice president of the North American Butterfly Association and active butterfly researcher, as she introduces us to the butterflies of the Midwest prairies and savannas with her beautiful slides. You will learn how to successfully observe, identify, and photograph these beautiful, winged creatures. You'll also learn about the habitats they require for their survival.

Directions: The Mt. Horeb Community Center is located in the lower level of the Public Library, 107 N. Grove Street, Mt. Horeb, one block North of Main Street. Call (608) 277-9960 for more information.

Earth Day Celebration
April 17, Saturday, all day, beginning mid-morning
Circle Sanctuary Nature Preserve (near Barneveld)

Nature walks, a four-season slide show of Circle Sanctuary, prairie burn (weather permitting), and a mother earth ceremony. Call (608) 924-2216 for directions and further information.

Regal Fritillary (*Speyeria idalia*)

Ann Swengel, vice president of the North American Butterfly Association and butterfly researcher.

The regal fritillary, a prairie butterfly, is state-endangered in Wisconsin. The adults I saw flying last summer have died, but the eggs they laid have already hatched. The resulting young caterpillars are tucked into the leaf litter for the winter. When the warmth of spring rouses the prairie plants to growth, these caterpillars will also rouse and begin eating their exclusive diet of violets. In early summer, they will metamorphose into adult butterflies.

About the size of a monarch, the regal fritillary is the only large butterfly with striking contrast in above side background between dark hind wings and orange front wings. Below, white spots glisten against a rust-red or darker background.

Most similar is the Aphrodite fritillary, especially the *alcestis* subspecies that inhabits prairie along with the more widespread *aphrodite* subspecies. *Alcestis* has a dark red background below, but on both Aphrodite subspecies, the hind wing above is orange, not black. Even backlit monarchs can suggest the regal's contrasting pattern, as do some medium-sized butterflies.

Since 1990, my husband and I have studied regal fritillaries, over 20,000 individuals found at 84 of our 120 prairie sites in six states. In tallgrass prairie, including Wisconsin, regals occur in all soil moisture types and tolerate considerable degradation, but peak in upland undegraded prairie. Westward in mixed- and short-grass prairie, the species is more restricted to wet prairie. Regals also live east of prairie, or did. In the last few decades, an extinction wave has swept westward to Indiana; only one major population is now known east of Illinois. This warns us Wisconsinites of the fragility of our regal populations.

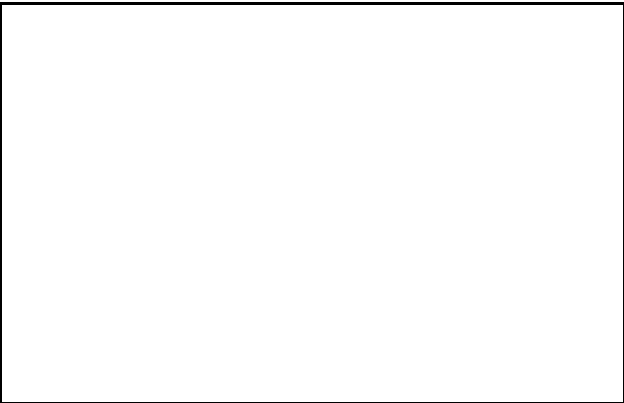
The longer I study butterflies, the more I appreciate the importance of sufficiently large patches of consistently suitable habitat year after year. Regals show this "area effect" by individual sites: an acre in a larger prairie has relatively more regals than a comparable acre in a smaller prairie. But regals also show an area effect by "clusters of sites". A prairie is more likely to support regals if the surrounding landscape contains other prairies also occupied by the butterfly, as compared to an equivalent prairie in isolation.

Site management strongly affects regal occurrence, too. Prairies burned at the usual frequency (2-5 year rotations) typically support fewer and smaller regal populations than prairies of comparable vegetation and size managed with light grazing or localized brush-cutting or rotational haying (mowed no more than once per year, preferably less often, in a rotation of units). Burning is much more lethal than the other managements to the regals, which are typically in an immature stage in the grass (fuel) when burning occurs. Under certain conditions fire may stimulate lush growth which can, over the years,

outcompete the violets and shift the flora to more grasses and fewer nectar flowers which adult regals require. Light grazing, un-intensive haying, and brush cutting can maintain a more consistent grassland structure and height over the years.

Compatible types of grazing, haying, and brush cutting tend to be much more favorable for regals than no management. But no management is more favorable than heavy continuous grazing or management primarily with fire. Small regal populations, or populations in small sites, are particularly vulnerable to all types of unfavorable management, even when treatments occur on only a small portion of the site per year.

The Blue Mounds area has a cluster of regal populations--a significant opportunity and challenge to care for. More information on butterfly management is available in a brochure (\$3.00) from the North American Butterfly Association (www.naba.org), 909 Birch Street, Baraboo, WI 53913. Free research reprints can also be



obtained at that address.

(Editor's note: Ann Swengle will be speaking to us about butterflies on April 10th-see the events calendar).

First Things First, Part II

Mike Anderson, BioLogic Environmental Consulting

This is the second of two articles discussing the importance of site preparation during prairie restoration. The first article on weed control appeared in the Fall 1998 newsletter.

Let's assume that you followed the weed control recommendations outlined in the last newsletter and that there isn't a single chlorophyll molecule in sight. Time to plant? Maybe, maybe

not. First, you need to know the condition of your seedbed. Just as you appreciate a comfortable, supportive bed while sleeping, prairie seeds appreciate a firm, supportive bed of soil (the seedbed) for germination and growth.

From a seed's point of view, a good seedbed is one that provides the proper amount of pore space. Pore space is important because it determines the physical growing conditions the seeds and roots will encounter and the amount of seed-to-soil contact. The amount of seed-to-soil contact is important because it strongly influences the amount of moisture available to germinating seeds and seedlings. This is because when a soil dries out the water in the pore space disappears quickly leaving only a thin film of water around the soil particles. Thus, the more soil particles a seed or seedling is in contact with the more moisture it has available.

If the soil is compacted there will be lots of seed-to-soil contact, but the lack of pore space will inhibit root growth which may increase seedling mortality. A compacted soil may also cause the seeds to be planted too shallowly or to be left on the soil surface because they cannot be properly incorporated into the soil. Soil that has been tilled when it is wet is most likely to be compacted.

If the soil is too fluffy there will be abundant pore space and easy root movement, but there may not be enough seed-to-soil contact to ensure successful seed germination and establishment. Also, a fluffy seedbed tends to settle **due to rain and frost action** which may cause your seeds to be buried too deep to survive. Soil that has been repeatedly tilled is most likely to be fluffy.

How do you know if your soil is too fluffy or compacted? If you leave a footprint deeper than three quarters of an inch there is a good chance that your soil is too fluffy. The remedy for this problem is a light, controlled compaction of the soil in order to reduce the amount of pore space. The easiest method is to wait for a rain storm, the rain will settle the soil. Alternately, you can use a

roller or a culti-packer (a series of knobby rollers pulled behind a tractor) to firm the soil. If it is difficult to scoop up a handful of soil with your fingers your soil may be compacted. Compacted soil will need to be tilled, perhaps several times.

If you're planting with a seed drill you need to pack the seedbed before you plant. If you're hand planting or using a mechanical seeder **which distributes the seeds on the soil surface**, you should wait until after you have broadcast the seeds and incorporated them before you pack. However, if the soil is extremely loose you may want to lightly pack the soil before hand planting and then pack again after planting. Never pack the soil when it is wet because this may cause compaction.

Remember, most prairie plantings fail because of inadequate site preparation. Avoid wasting your time and money by creating a high quality seedbed and by controlling the weeds before your plant your first seed.

Our Mission:

The Blue Mounds 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, non-native 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 Project is sponsored by Community Conservation Consultants (CCC), a nonprofit organization.

<p>The Blue Mounds Project Newsletter is published quarterly. Send your comments, suggestions, and submissions to Mike Anderson, editor, BMP, PO Box 332, Mount Horeb, WI 53572.</p>
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