



THE BLUE MOUNDS AREA PROJECT

Promoting Ecological Restoration and Stewardship of Native Habitats

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Pine Relics and Pioneer Families

Carroll Schaal, President

You never know where the quest for information will take you. A few months ago, we received an email from Wayne Iverson. Wayne conducted vegetation surveys and research in Iowa County while he was a student at the University of Wisconsin-Madison in the 1950s. Some of the plant specimens he collected remain at the UW Botany Department Herbarium in Madison. Wayne was born and raised in Daleyville, but now lives in Arizona.

I found his message, about "relict" plant communities and sandstone bluffs a unique contrast to our usual talk about prairies and oak savannas and his detailed documentation linking the early settlers to the area's natural history coincidental with our recent efforts with the Historic Perry/Military Ridge Prairie Heritage Group where we are trying to gain broader support for the work we are doing by showing how the preservation of our natural and cultural histories are intertwined. I thought his observations would be of interest to our members and provide an entrée for more discussion on this latter subject.

The following is the first of a two-part series of excerpts from correspondence from Mr.

Iverson. Some of this information is from a paper he shared with us called "The Bluffs Around Daleyville."

Four prominent bluffs in the Daleyville area are the Anderson Bluffs (about three miles northwest of Daleyville on Upper Spring Creek), the Grimstad Bluffs (about two miles west of Daleyville on Spring Creek), the Thompson Bluffs (about three miles southwest of Daleyville), and the Retrum Bluffs (northwest of Daleyville).

The bluffs are micro-ecosystems, small islands of 5 to 10 acres of northern plant species in the midst of the prairie ridgetops and deciduous forest hillsides of Southwest Wisconsin. They are technically referred to as White Pine Relicts. They are remnants of the glacial period that have managed to survive for thousands of years. The reasons may be that the bluffs were cooler because of the northerly exposure and the bluff heights were such as to keep a few acres in shade most or all day long and allow for white pines and ferns to thrive well outside of their normal range. In addition, they were protected from fires started by lightning or by Native Americans.

The Native Americans burned the prairies in order to concentrate and kill game animals which fled in front of the

fires and which also allowed for removal of overly dense vegetation and the renewal of fresh vegetative cover. Since the base of the bluffs were adjacent to creeks and marshy flats, fires would not often start at their vulnerable lower slopes and fire seldom spreads down such steep slopes. In the first century after white settlement, the bluffs were mostly free of cattle grazing due to their steepness and danger of cattle falling over the rock ledges.

Other sandstone bluffs in the area lacked pines. The reasons may be that they had south exposures, were not located adjacent to creeks, the pines had been cut, or they may have been overgrazed.

One study involved the Anderson Bluffs as part of a UW plant ecology course taught by Dr. John W. Thomson, who had moved to a small farm southeast of Mt. Horeb in order to raise his children outside the city. The prize find of mine was a small group of trailing arbutus, *Epigea repens*, on top of the

bluff. Trailing arbutus is a low trailing plant not over two inches tall with leathery, dark green, net-veined oval leaves and tiny, but fragrant white and

pink fringed flowers. Prior to this discovery, trailing arbutus had not been found this far south in Wisconsin by many miles. For my final exam Dr. Thomson met me at the bluff and had me identify dozens of plant species. He confirmed my finding of trailing arbutus.

Some of the special places around Daleyville were sandstone bluffs on the east side of Spring Creek (Grimstad Creek/Gordon Creek) Valley a couple of miles to the southwest, west, and northwest of town. Since they were the only places where thick stands of white pine, paper birch, and a dense groundcover of bracken ferns grew naturally they may have reminded the Norwegian settlers of their old homelands. They also offered relief from the surrounding open and sunny landscape that surrounded the bluff and from the summer heat. Many old photographs of Daleyville area people were taken during outings at these and other bluffs.

The bluffs also provided a site for carving initials and dates, thereby giving us a unique historical record. The sandstone was soft, so carving was relatively simple. Unfortunately, the soft stone was subject to gradual erosion and to lichen overgrowth. Many of these initials and dates have disappeared or have become difficult to decipher.

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When reading Carl Grimstad's story of his travels and homesteading in the Red River Valley of North Dakota, I found that he had carved his initials and date on the Grimstad Bluffs near Daleyville, which he called "Fure Hotten" (Wrinkled Hat?).

I went there while back in Wisconsin visiting with my family in June 1983 and found his initials and took some photo slides of them. I returned again in April 1997 and recorded the following carvings, among others:

7/7/79 CMG Carl M. Grimstad, the author mentioned above, who carved them just before he left for homesteading in North Dakota. He is the one who wrote to and helped grandfather Julius Iverson and other family members find homesteads in North Dakota close to his in 1880.

OPS 08 Possibly Oscar Syftestad.

AKG 1900 Aslak Grimstad, who was Carl Grimstad's brother and who took over the farm.

WG 1907 Probably William Grimstad, son of Aslak Grimstad who owned the farm after father Knute died.

MAO

OG Possibly Ole Grimstad, brother of Carl and Aslak, or "og" which means "and" in Norwegian.

Another reference to carving initials on the Grimstad Bluff is contained in a paper authored by Jon Tarje Nes, a descendant of the Nes Family of Nissedal, Telemark, Norway, and a cousin of the Grimstads. He wrote: "I had a strange feeling when I, in 1973 found the name of my father and uncle Hans in 'Blofften' near the farm of Knut and Mari (Grimstad). In a letter to my father from Uncle Olav I had read, 'Madison is a nice city. It is the capital of Wisconsin. It is situated by a big lake. It is just 28 miles to Blue Mounds. I came to Blue Mounds this morning. Then I visited Carl Grimstad. He lives just 1 1/2 miles west of Blue Mounds. I stayed the night over. So he took me down to A. Grimstad. He lives 8 miles south of Carl. There I stayed from Saturday until Monday. Then I was down in Bloffen and put my name on the mountain wall where you, Hans, and Ingvald had their names.' "

Thanks to Madrice Wolbert of Delaware, Ohio, a descendant of the Grimstad and Rindy pioneer families of the Daleyville area for helping me match initials and names and for helping me develop the historic timeline.

*Mr. Iverson's story will be continued in the next newsletter. **

Wetland Resource Directory

Wisconsin Wetlands Association (WWA) has developed a *Wetland Resource Directory* with contact information for over 750 wetland scientists, agency staff, consultants, and non-profit organizations involved in wetland-related activities. See the WWA website: www.wiscwetlands.org. *

Coldwater Fauna of Driftless Area Streams

Dave Marshall and Carroll Schall

With the financial assistance of a DNR River Protection Grant the BMAP is working to promote greater understanding, appreciation, and protection of our area headwater streams. As part of the project we will be hosting several educational events over the next year, a couple of which are announced elsewhere in this newsletter (see page 3). If you have an interest in streams and aquatic ecosystems, you will want to attend these sessions. Meanwhile, here is a list of species that will acquaint you with some of our native (and nonnative) fish communities.

Fishes

Petromyzontidae (Lamprey Family)

American Brook Lamprey (*Lampetra appendix*): non-parasitic cool water indicator, intolerant of degraded conditions.

Salmonidae (Trout: Salmon Family)

Brook Trout (*Salvelinus fontinalis*): native sport, requires cold water, intolerant of degraded conditions. The least abundant salmonid. Rarely stocked because its growth and survival rates in the hatchery and when stocked are less than browns and rainbows.

Brown Trout (*Salmo trutta*): introduced sport, but does reproduce, requires cool water.

Rainbow Trout (*Oncorhynchus mykiss*): introduced sport, but does reproduce, requires cool water.

Cyprinidae (Minnow Family)

Redside Dace (*Clinostomus elongatus*): cool water indicator, rare and intolerant of degraded conditions.

Gasterosteidae (Stickleback Family)

Brook Stickleback (*Culaea inconstans*): cool water indicator, in same order with marine seahorses and pipefishes.

Cottidae (Sculpin Family)

Mottled Sculpin (*Cottus bairdi*): cool water indicator, intolerant of degraded conditions, in same order with marine scorpionfishes and robinfishes.

Fish Found In Low Numbers in Healthy Trout Streams Or That Are More Common in Degraded Trout Streams

Cyprinidae (Minnow Family)

Creekchub (*Semotilus atromaculatus*): widespread and tolerant of environmental degradation.

Catostomidae (Sucker Family)

White Sucker (*Catostomus commersoni*): widespread and tolerant of environmental degradation.

Centrarchidae (Sunfish Family)

Green Sunfish (*Lepomis cyanellus*): tolerant of environmental degradation.

Percidae (Perch Family)

Fantail Sarter (*Etheostoma flabellare*)

Johnny Sarter (*Etheostoma nigrum*)

It's interesting to note that while we typically associate diversity with ecological health, coldwater streams, which have a relatively low diversity, are very sensitive to disturbance. Their presence is a sign of a stable and healthy environment. *

Stream Shocking Demonstration

Dave Marshall and his fisheries crew will conduct a stream shocking demonstration on Gordon Creek near Daleyville in Iowa County on Saturday, September 28th from 10 a.m. to noon. Stream shocking is a widely used method for conducting fisheries inventories. A portable gas-powered generator supplies about 2 to 3 amps of pulsed electrical current to the water that temporarily immobilizes nearby fish. Larger fish are more susceptible due to their increased surface area. The immobilized fish can be placed in a tank for identification and measuring.

The shocking is being done to calculate a community environmental health index developed by John Lyons called the Coldwater Index of Biotic Integrity. Healthy coldwater systems generally support low numbers of species that are adapted to living year-round in the frigid water produced by groundwater discharge. Key species include trout, mottled sculpin, and American brook lamprey. The American brook lamprey is not parasitic, but rather feeds on detritus in the stream.

In addition to shocking, Dave will show and explain the habitat restoration and improvement work that has been done on Gordon Creek over the last 20 years and the resulting changes in water quality and aquatic diversity.

To attend the demonstration, meet in the parking lot of the Perry Lutheran Church in Daleyville at 10:00 a.m. on Saturday, September 28th. Daleyville is about 8 miles south of Mt. Horeb on Hwy. 78, the church is on the right side (west) of the road. We will carpool from the church to the workshop site on Gordon Creek on the Jim McCauly and Steve Holmes property on nearby Sandy Rock Road. *

Prairie Conference Proceedings Available

The proceedings of the 17th North American Prairie Conference, which was held in Iowa during June 2000, are available for purchase.

The 242 page soft cover publication contains 36 papers discussing prairie management, restoration, ecology, and education. To obtain a copy, send a check for \$20 made out to NIACC-NAPC to Carol Schutte, NIACC-NAPC, 500 College Drive, Mason City, IA 50401. Contact Ms. Schutte at 641-422-4319 or via email at schutcar@niacc.edu with questions. *

Please Help Our Membership GROW

Have a friend, neighbor, or relative you think would enjoy and benefit from BMAP's activities? Let us know and we'll send them a newsletter and a brochure. Better yet, let us know and we'll send you a brochure and a fresh newsletter to personally share with the prospective member. Help us grow.

Contact John Raasch with your requests at 608-832-8999 or via email at jaraasch@facstaff.wisc.edu. *

BMAP Hosts Talk on the Streams and Fishes of Southwestern Wisconsin

John Lyons, WDNR watershed ecologist, will present a talk entitled *Streams and Fishes of Southwestern Wisconsin: Past, Present and Future*. John will tell us about the pre-European settlement condition of the streams in the southern Driftless Area with emphasis on their fishes, tracing the changes that occurred as a result of large-scale agricultural development of the region, describing the current status of the streams and fishes, and discussing possible responses of the streams to grassland management and restoration in their riparian zones.

John has been a research scientist for the Fish and Habitat Research Section of the WDNR since 1985. Currently, his work focuses on fish ecology and the effects of land-use on stream fish communities. He is also Curator of Fishes at the UW Zoological Museum in Madison.

The talk will be October 30th from 7:30 to 8:30 p.m. in the handicap accessible meeting room of the Mount Horeb Public Library. The public is invited-please bring a friend or two.

Directions: The Mount Horeb Public Library is located at 105 Perimeter Road. From the west: Take Hwys 18/151 to the County ID exit to Mt. Horeb. Turn left (south) on Perimeter Road, which is near the McDonalds restaurant. From the east, north, or south: From the stop light intersection of Hwy 92 and Hwy 78 in Mt. Horeb (there is a Kwik Trip on this corner), go east on County ID and turn right (south) on Perimeter Road, which is near the McDonalds restaurant. *

Fall Classes at the Woodland School

The Woodland School was formed in 1998 by a group of resource management professionals who believe the sustainable management of private lands is essential for maintaining the integrity and diversity of our native habitats. The Woodland School strives to offer private landowners training in multi-resource land stewardship, conservation management, and ecological restoration at an affordable price.

The Fall 2002 class list includes:

- Grassland Bird & Plant Safari, Sept. 7, Baraboo, \$20
- Prairie and Savanna Restoration: Starting Right, Sept. 14, Middleton, \$50
- Wetland Basics: Ecology & Evaluation, Sept. 21, Stevens Point, \$40
- Timber Stand Improvement, Oct. 12, Baraboo, \$40
- Prescribed Fire for Woodland Management, Oct. 18, Spring Green, \$50
- Chain Saw Safety: Making the Right Cut, Nov. 2, Baraboo, \$40
- A Cut Above: Intermediate Chain Saw Skills, Nov. 16, Baraboo, \$40

For more information or to request a catalog contact: The Woodland School, PO Box 77, Baraboo, WI 53913, phone (608) 355-0279, send an email to rob@aldoleopold.org, or visit www.thewoodlandschool.org. *

A Sense of Place: A Short History of the Forests in the Town of Vermont

Bob Wernerehl

Have you ever wondered what the land where you live was like before European settlers arrived? Many of us who live in the country find some sense of place in our “township,” as that is where we vote. It is a unit much smaller than a county, small enough for us to have a feel for what the land is like. The Blue Mounds Area Project has many members in the Town of Vermont, a township located between Mount Horeb and Black Earth, with its western edge bordering Iowa County. The Town of Vermont is known for its very rugged beauty, and, perhaps, for its many interesting inhabitants.

Recently, the UW-Madison Department of Forest Ecology and Management undertook the daunting task of computerizing the General Land Office Public Land Survey (GLO-PLS) records. This makes it possible to reconstruct the details of the forests of Vermont, or any other Wisconsin township, at the time the survey was conducted. For Vermont township the survey was done in 1833. It is the GLO-PLS that created the land divisions that are the basis of our rural property boundaries today, and the history of how it all took place is interesting.

In 1829, Wisconsin was part of Michigan territory and most of the land was under Native American control. A treaty signed that year made it possible for land to be surveyed and sold. In those times, Iowa County was the hub of

economic activity in Wisconsin and vast quantities of lead were being mined and transported. A precipitous drop in the price of lead ore in 1829 inspired the miners to demand help from Congress. The sale of public land was one of their demands. It would allow them to develop a permanent land base and structures they needed for mining. Congress agreed to go ahead with the survey (Smith 1973).

The first survey contracts were let in 1831. The surveyors had to first establish the Illinois-Wisconsin border and work north from there. They also measured east and west from the “fourth principal meridian,” their term for 90 degrees of longitude (one quarter of the way around the world from Greenwich, England). The first job was to establish congressional townships. These are the 36 square mile units (six miles on a side) basic to the land division. The difference between a township and a town is that townships are consistent 36 square mile units, whereas towns are a governmental unit that may or may not conform to the same square shape. The “Town of Vermont” happens to be a town that matches the boundaries of a congressional township, that being “Township 7 North, Range 6 East.” This means seven townships north of

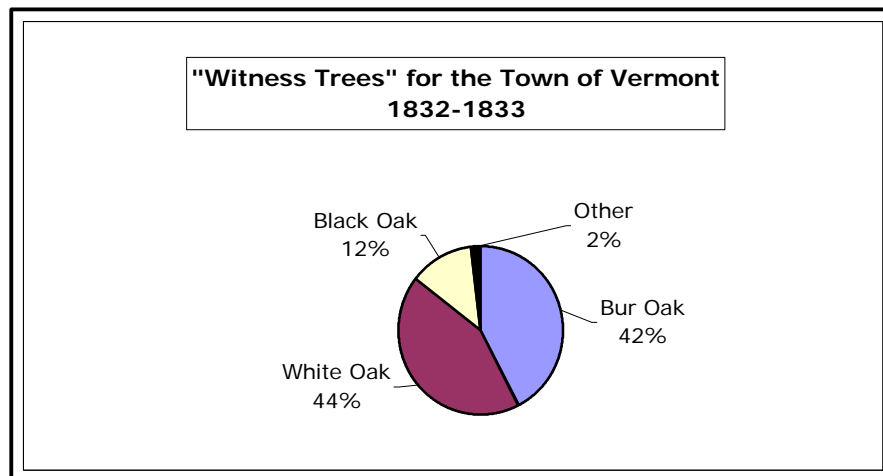
the Illinois border (36-42 miles as the crow flies) and 6 townships east of the fourth principal meridian.

Each square mile section in the interior of the township had survey points every half mile and at the section corners. Each township had 109 points not shared with neighboring townships. In 1832 and 1833, when Vermont township was being surveyed, there were few roads or buildings. Each point along the survey had to be marked using trees as a reference. These are called “witness trees.” The survey crew would search up to 1,000 feet away from the survey line to find a suitable tree. If no trees were present, they raised a mound of earth four feet high and set a post on top, and that was a lot of work. Knowing how distant these witness trees were from the section or half section corners, we can use a field-tested statistical method to tell how far apart the trees were in that general area.

These assumptions about tree density can be supported by the surveyors’ requirement to record a general description of the land. These included comments such as “land rolling, second rate, thinly timbered.” Any deviation from the usual was noted in the records. For example, it was noted when the survey crew entered or left a woods, marsh, or prairie.

1830s Surveyors’ Records for the Town of Vermont

The General Land Office Public Land Survey for Vermont Township took place in 1832 and 1833. The survey was done by John Mullett who was considered to be a very reliable, accurate surveyor (Nurre 2001). In the 36 square mile township



the surveyors measured and recorded 110 survey points marking 243 witness trees (Sickley 2001). The witness trees included 103 bur oaks, 105 white oaks, and 30 black oaks (see accompanying figure). Other trees noted include 2 hickory, 1 ironwood, 1 basswood, and 1 sugar maple. The average diameter of the witness trees was 12.2 inches.

Based on the average and median distance from the survey points to the witness trees, there were between 2.9 and 6.3 trees per acre, respectively. Only 23 trees were encountered directly on the 72 miles of straight survey lines walked. That’s approximately one tree every three miles.

The Town of Vermont had a very uniform savanna landscapes compared to the neighboring townships. Surveyors were always able to find witness trees. No points were recorded in prairies where no tree could be found. The longest distance measured to the nearest tree was 500 feet, with a typical distance being 30 to 60 feet. A small band of treeless prairie crossed the southwest corner of Section 36 and extended south and northeast from there. A band of marsh or wet prairie followed Vermont Creek on the west half of Section 2. The most common description written by the surveyors was “Land

hilly & stoney (sic), Second rate Timber Oak.”

It should be noted that the surveyors most likely exercised a bias against selecting bur oak as a witness tree because they had to cut the bark off a section of the witness tree in order to inscribe it with the section corner information. Bur oak, with its thick bark, was harder to cut than the thinner barked white or black oak and would likely have been selected less often whenever the other two species were nearby. Therefore, the township was probably more dominated by bur oak than is reflected in the surveyors’ records.

Sources and References

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Invasive Plants Association of Wisconsin

The Invasive Plants Association of Wisconsin (IPAW) is a relatively new non-profit organization whose mission is to “promote better stewardship of the natural resources of Wisconsin by advancing the understanding of invasive plants and encouraging the control of their spread.”

They work with industry representatives (nurseries, seed producers, landscapers), government agencies, conservation organizations, and the general public. They host workshops, conferences, and can provide educational material.

IPAW memberships are \$20/year and include a periodic newsletter. Visit the IPAW website for more information or to download a membership form: www.uwex.edu/ces/ipaw. *



Calendar of Events

Enlightening Tours of Prairies, Savannas, and Open Woodlands Various dates, times, and locations, August through October

The Prairie Enthusiasts’ slate of field trips to native plant communities continues with an ambitious schedule that continues through October 19th. A great opportunity to visit quality natural areas not open to the public. Check their website for full details: www.theprairieenthusiasts.org. Better yet, become a member and have the information delivered to your door. *

Stream Shocking Demonstration September 28, 10:00 a.m. to noon Daleyville area

See the Stream Shocking Demonstration article on page 3 for full details of this BMAP sponsored talk. *

Norwegian Tales and Native Prairies Saturday, October 5, 1:00 to 3:30 p.m. Iowa County

Pastor Jonathon Kosec of Perry Lutheran Church and Derek Johnson, director of protection for The Nature Conservancy, will lead hikers on a visit to the past when they tour Barneveld Prairie and the surrounding area. The trip will begin at Perry Lutheran Church where Rev. Kosec will talk about the historic Perry Norwegian Settlement, the Perry Historical Center, Perry Cemetery, the Hauge Log Church and the work the congregation is doing with The Nature Conservancy and other conservation partners to preserve the natural as well as human history of the area.

Hikers will then carpool to The Nature Conservancy's Barneveld Prairie preserve to talk with Mr. Thomas, former owner of the land, and visit his barn. The trip will end with a hike onto the prairie itself and a discussion of Native American tribes in the area and the natural features which drew the Norwegians to the area originally. Wear sturdy shoes or hiking boots and dress in layers for the weather. Bring water to drink. Difficulty level: Easy walking on level trails.

Directions: From Mount Horeb, go west on State Hwys 18/151 for about 1.5 miles. Turn south on State Hwy 78 for about 8 miles. The Perry Lutheran Church is on the right side of Hwy 78 in Daleyville.

The trip is limited to 30 people. To make a reservation, call Cate Harrington at The Nature Conservancy at 608/251-8140 between September 9 and 23. *

Invasive Plants-Global Issues, Local Challenges October 27-30

Chicago Botanic Garden, Chicago, IL

Visit www.chicagobotanic.org/symposia/jmpsymp.html for the details. *

Streams and Fishes of Southwestern Wisconsin October 30, 7:30 to 8:30 p.m.

Mount Horeb Library

See page 3 for the details of this BMAP sponsored talk. *

Our Mission:

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.

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.

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The Blue Mounds Area Project Newsletter is published quarterly. Send your comments, suggestions, submissions, and advertisements to the Editor: Michael Anderson, Blue Mounds Area Project, PO Box 332, Mount Horeb, WI 53572 or by email to biologic@chorus.net.

Blue Mounds Area Project Membership Form

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MEMBERSHIP LEVEL:

General (individual or family) \$25.00 / Year _____

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Other contribution to further the BMAP mission _____

TOTAL _____

All contributions are tax-deductible to the fullest extent of the law

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As parents, we would be up in arms if our children didn't know the alphabet. But we don't notice when they can't read the landscape.

Ellen Goodman



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