



PRAIRIE SMOKE

Nachusa Grasslands Newsletter

Issue ²⁷ 26

June 1, 1996

Restoring the Lost Savanna

By Todd Bittner

Imagine yourself in this situation...You are an early settler in the wilderness now called Illinois. You are looking for some land with rich soil for your crops, a nearby stream for your livestock, and some timber for firewood and a cabin. The site that you select is a bur oak savanna, nestled along a clear running stream. It is an island of trees within a seemingly unlimited prairie.

It is no wonder that settlers were drawn to living in savannas within this landscape. It has beauty and provides protection and essential necessities for living in the wilderness. These areas were the first settled in Illinois. And because they were so suited for agriculture and residential uses, there are almost no silt loam (rich soil), savannas remaining today.

Increased development coupled with fire suppression allowed these fire dependent communities to immediately grow up into a brush choked thicket. These savannas quickly succeded towards closed canopy forests. This succession benefitted shade tolerant species at the expense of partial shade species or what we believe are savanna plants. Within a few decades after European settlement, Illinois savannas were far down the path towards being severely altered.

By the mid 1950's, John Curtis, a respected Wisconsin ecologist, concluded that savannas consisted of prairie plants with an overstory of oaks. Although the conclusions were based on only a few, highly degraded savannas remaining in Wisconsin, this became the conventional wisdom. Just recently, attempts to scientifically determine what constitutes a silt loam savanna have been undertaken.

Unlike other natural communities in the midwest, we do not have good examples of high quality savannas to use as benchmarks for restoration. We are left



(continued on page 3)



Unexpected Gifts

by Thelma Dahlberg

In recent months, on two separate occasions, Nachusa Grasslands has received a generous gift from an unknown friend. Mr. William Keeton bequeathed a monetary gift sufficient to help purchase eighty additional acres to the Grasslands. Unfortunately, no one in the Conservancy personnel was acquainted with Mr. Keeton and no family members can be found. We do not know if he ever visited the Grasslands. We regret we cannot express our appreciation in a personal way for this great kindness.

Another generous gift from a new friend was received from Mr. Mayo "Hook" Larson. At the time, Mr. Larson had not been to Nachusa Grasslands and the prospect of a visit was unlikely, for the past four years he has struggled with Lou Gehrig's disease. He had heard about the Grasslands through a friend he had met in "Ducks Unlimited", Mr. Jeff Meiners. Throughout his life, Mr. Larson enjoyed hunting whenever he could have vacation time from his job as a chauffeur for the Ingersoll Milling Company in Rockford. Happily, Mr. Larson is now aware that his gift is greatly appreciated, and he has had a personal tour of the Grasslands. A friend brought him to the area, recently, and Bill Klieman provided a cruise in the "Gator" over the north side prairie area. He also had a glimpse of the Meiners Wetlands from the roadside. His visit was a happy occasion for everyone involved. Even the weather co-operated!



Paul Jackson, Hook Larson, & Thelma Dahlberg touring Nachusa Grasslands

From the Preserve Manager-Bill Kleiman

Sampling of preserve work accomplished since February:

Schafer Unit: David Edelbach and Gerald McDermott and helpers have removed all cedars from the high quality areas on the unit. Two barrels of hand collected seed were planted. The unit was burned during the Spring burning workshop which was attended by 20 enthusiastic people. The burn objective was to top kill the multiflora rose which was thick and in large areas. Top killing with fire or mowing eliminates some of the rose but most resprout from the roots. When they do resprout only a small amount of herbicide is needed when stewards back pack spot spray in the summer to finish the plant off for good. The spring prescribed burn also revealed an old junk pile which was removed.

Doug and Dot unit: Gene St. Louis lead the removal of cherries in the savanna and on the knobs and planted a great deal of hand harvested seed. Gene is spot spraying reed canary grass also.

Clear Creek Unit: Pasture burned by Mary Blackmore and Terri Clark, Keith Blackmore, Mary Kluz, Sally Bowers, Jay Friberg, Sherry and Bob Piros, Margaret Knight, Sally Baumgardner. Seed was planted in several areas.

Rolling Thunder Prairie: Sally Baumgardner lead several on fenceline removal, prescribed burning and planting numerous seeds on Earth Day.

Main Unit: Mike Adolph and friends seem to have finished thinning brush from Coyote point. Numerous areas have had cherries and box elders removed from the plumb thickets. We leave the plumb thickets which we see as belonging in the swales. Seeded numerous areas.

Fen Unit: Kevin Kaltenbach mowed multi flora rose from the edge of the fen and planted savanna seed in the new restoration area called eight oaks.

West Heinkel Unit: Weekday crew did a massive thinning of red cedars that were shading out an old prairie remnant that several years ago had the rare Hill's thistle. The crew consisted of Gene Miller, Gerald McDermott, Rodd Schick, Todd Bittner, Bill Kleiman, and the NIU crew of Tom Jones, Melinda Miller, Sandy Becka and Carol Chapman. This job took 13 four-hour work days and the results will produce more of the rare prairie habitat. For those who love red cedars know that they are doing very well this century in Illinois, prairies are not.

Three fields were planted to prairie/savanna. Burr oak acorns will be harvested this fall for planting in these fields. Jesse Nichols and fellow Boy Scouts removed a great deal of fence and posts and junk.

Big Woods Unit: Weekday crew widened the boundary to allow for easy control of prescribed woodland burning which they carried out in April. Earl Thomas and Jim Lahman began control project on garlic mustard, a woodland weed.

East Heinkel Unit: Mike Crowe and NIU crew girdled numerous planted red pines until their hands went numb. Thinning these planted non native pines will allow the oaks and walnuts and prairie remnants to thrive.

Preserve wide: Several barrels full of hand harvested seed consisting of over 75 species was planted in over 50 different areas. Many pounds of combine harvested seed was also planted. About half of the preserve acreage was burned this spring. Only about one-quarter of the highest quality habitats were included in the burn units.

VOLUNTEER OPPORTUNITIES

The following important people are needed now:

Desktop Publisher - help with newsletter publishing.
Weekday and weekend stewardship crew members - weed control, seed collecting, prescribed burning, brush thinning, etc.. Work once or twice a week, or a month, try it out for a day.

Roadside steward - responsible for roadside litter and weeds, sign upkeep, fence inspection, bluebird box maintenance.

Records Keeper - maintain a record of volunteer hours and stewardship accomplished.

Workday Publicist - help get the word out to the public about workdays and other events, write occasional press releases - Greg Wermers

Photo Monitor - create and maintain permanent photo points and take various photos of the preserve.

Plant Monitor - For tracking individual species.

Bird Atlaser - run the standard bird atlas.

Equipment steward - help maintain stewardship tools.

1997 Autumn on the Prairie Team - plan and implement the event with lots of help from everybody.

Insect translocation steward - find rare insect populations outside the preserve, get permission to harvest a small amount of them to be released here.

Animal steward - possible species to help are blanding's turtle, mud turtles, franklin's ground squirrel.

David Edelbach hauling cedars off of Schafer Knob.



Restoring the Lost (continued from page 1)

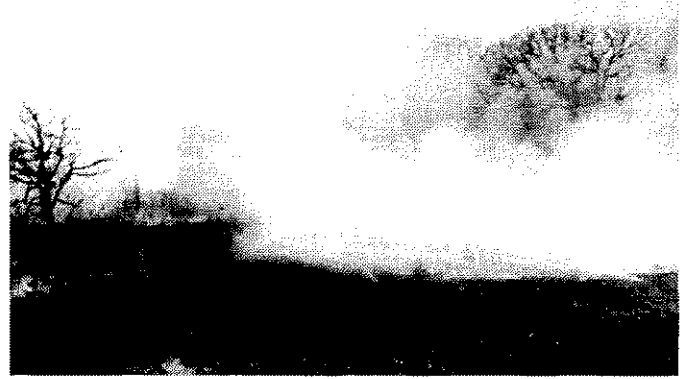
with small, low quality, highly scattered bits of savanna that we must piece together much like a jig saw puzzle that has only 50 of its 1000 original pieces. Clearly, it will be hard to see and understand the picture of this incomplete puzzle. However, unlike a man-made jig saw puzzle, if we put some of the missing pieces back not even knowing where they properly go, they will arrange themselves. So the trick is to find the missing pieces of the savanna puzzle, and let nature determine how to put the puzzle back together.

I began looking for these missing pieces, and that led me to create a species list of potential silt loam savanna plants. The 167 species in this list are all known from Ogle and Lee Counties. The list was a compilation of several publications and my own observations.

To restore the bur oak savannas at Nachusa, we must create suitable habitat by removing the exotics and shade tolerant tree species and by reintroducing fire. Subsequently, the response of the flora to the restoration efforts will be monitored. We will be looking for savanna species to appear by seeding in from nearby areas, germinating from the seedbank, or to reappear from a suppressed condition. Seeds collected from savanna species will be planted within the restored areas as well.

Encouragingly, 129 of the 167 plants on the list are presently known from Nachusa Grasslands, so many of the puzzle pieces are nearby. Hazelnut, wild rye, shooting star, woodland phlox, Illinois rose, and wake robin are a few of the plants we will be seeing again in our savannas. Of the 38 species not known from Nachusa, many were probably here before disturbances were introduced. Species such as the purple milkweed, butterfly weed, and spring beauty to name a few, could and should be introduced back to our savannas and open woodlands.

Restoring our bur oak savannas poses unique problems for us. But regardless of how difficult the task is, it is well worth the effort. Imagine sitting under your favorite 200 year old bur oak watching the sunset, smelling the wildflowers, listening to singing birds...need I say more.



Fire & Savannas

The resulting blackened savanna of the April burn with the fire running up slope towards the burr oaks enveloping them in thick smoke. One dead oak caught on fire and tumbled to the ground several hours later. The live burr oaks showed only blackened bark at the base.

Gerald McDermott & Mike Adolph conducting a prescribed burn by the Savanna west of Doug's Knob in April



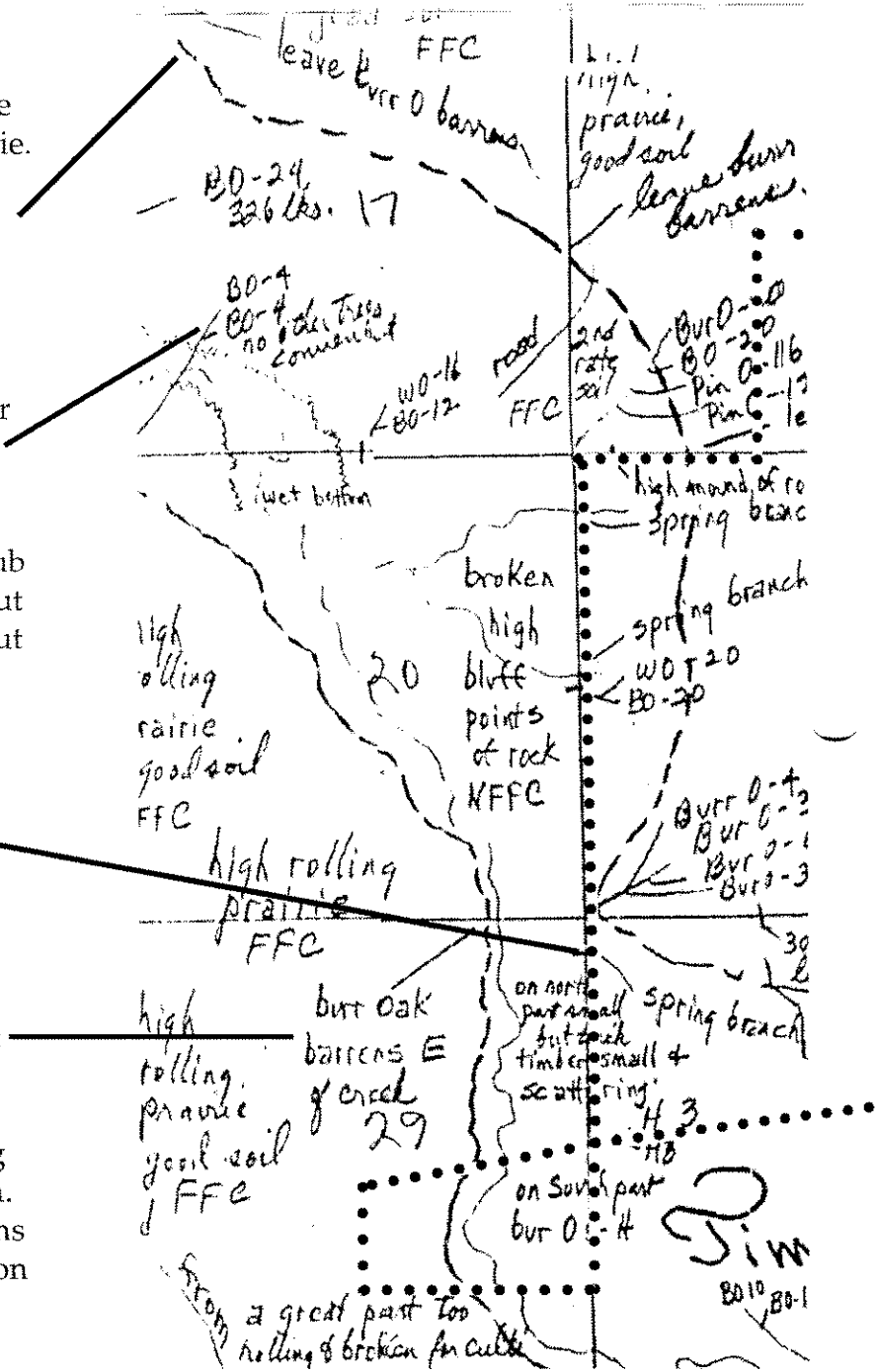
On December 7 through 10, 1839; public land surveyors were laying out the township and range lines in the Nachusa Grasslands area. The surveyors made their way through an Illinois wilderness that just a few years before was in the territory of the Sak and Fox tribes. They marked the corners of the sections and made notes of some of what they saw. We use these notes to have a glimpse of the landscape as it was then so that we know how to manage and restore the preserve in the future.

One of several points where surveyors left the barrens (savanna) and entered the open prairie. The dashed line shows the approximate boundaries of the savanna which occurred along Franklin Creek. The uplands were prairie.

BO - 4. Burr Oak 4 inches diameter. No other trees convenient. The surveyors wanted to find fairly large trees to mark the section corners. Note that the trees are not big. The savanna consisted of many small trees and shrub trees likely due to fire continually thinning out and top killing the trees which would resprout into shrubs.

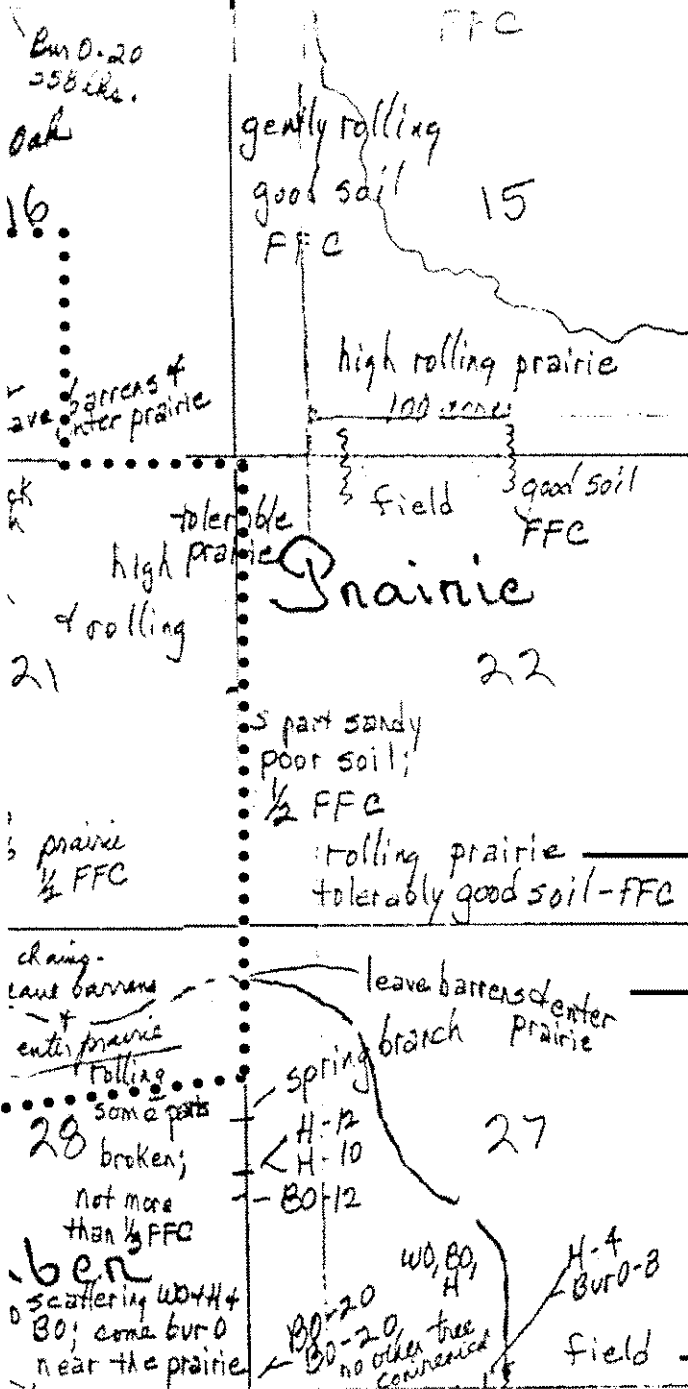
Spring branch. Likely Wade Creek or the water leaving from one of the seeps on the west boundary.

Burr, white and black oaks are the dominant trees. No box elder or black cherries noted although they are common today. No cedar trees are noted but they likely occurred along rocky ledges where fire could not get at them. Other fire intolerant trees noted in the bottoms of Franklin Creek Natural Area (not shown on this map) are sugar maple, ash and hickory.



1839 Public Land Survey Notes were transferred to this map by Max Hutchinson of TNC

Lowden Road



This view is close to what the surveyors would have seen. Looking north from Coneflower Knob area. Willows along Wade Creek, the red pines on the left were likely Oak Savanna, the red pine area on the right was prairie and behind the photographer would have been rolling prairie to the horizon. In 1839, the view would have been drawn since photography began just before the Civil War

Most of the land was prairie in the township. Rolling rich prairie on top of eroded sandstone in an area missed by the Wisconsin glacial ice.

Naylor Road

An early settler's plowed field.

Nachusa Grasslands Boundary



Stewardship at a Glance by Todd Bittner

One of the greatest rewards of being a steward at Nachusa Grasslands is to see the results from the stewardship that we have done. To see a restoration fill with prairie forbs or to have another pair of northern harriers nest are a few of the things that keep us going. However, the benefits from all the work that goes into restoring another 40 acres, from collecting pails of seed to planting day, is not initially apparent. If all stewardship activities demanded such patience before yielding some satisfaction, we would not have had the successes we enjoy today. In other words, thank God for brush clearing.

Brush clearing is one of the hardest of all stewardship activities, yet it is one of the most popular. You get stuck, stabbed, scratched, and sweaty. Your back aches and you get dirty. It is cold but too hot by the brush fire. With all of this, why do so many volunteers enjoy it -stewardship immediate gratification or SIG for short. SIG is a wonderful thing. It keeps us motivated. We see in one workday that we do make a difference. A degraded, exotic dominated woodland becomes transformed. An encroached prairie is freed. SIG keeps us going.

On several occasions this past winter, the weekday volunteers, co-op students, and staff experienced SIG first hand. We had three primary goals: clear the cedars along pussytoes lane, perform bur oak rescue throughout the preserve, and clear the western boundary for a fire break. The following two sets of pictures are before and after shots for two selected workdays. In picture #1, Gene Miller is standing next to a bur oak in the West Heinkel Unit. Yours truly is shown in the after shot (picture #2) under the newly rescued bur oak (lots of SIG there). Picture #3 from another workday shows some cedars along pussytoes lane looking north across the preserve. The area in the foreground was previously cleared. Picture #4 shows a spectacular view and yours truly again spreading seed on the newly exposed soil. It doesn't get any better than this.



Photo 1



Photo 2



Photo 3

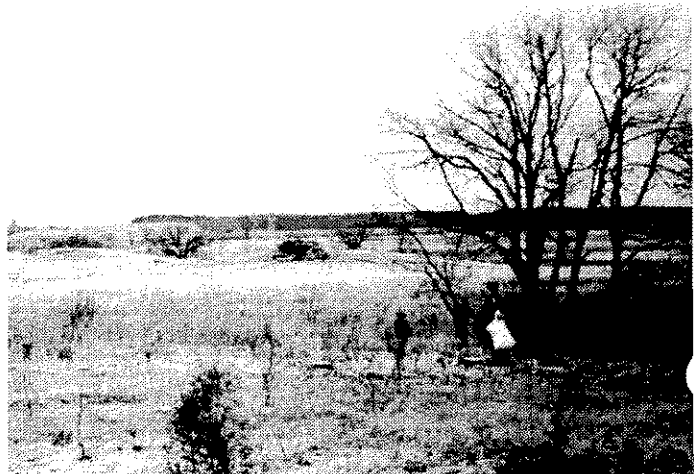


Photo 4

Nachusa Grasslands Calendar

June

- 15 Sat: Workday on Schafer Unit with David Edelbach. Followed by a 3rd annual summer-icecream social-potluck-barbecue
- 22 Sat: Workday on Coneflower Unit w/Mary Hoeffliger
- 22 Sat: Tour of late Spring prairie with Sonja Vogl
- 29 Sat: Savanna Plant Identification Tour with Dennis Lubbs

July

- 13 Sat: Workday on Clear Creek Unit with Mary Blackmore and Workday on Main Unit with Mike Adolph
- 14 Sun: Workday on East Heinkel Unit with Mike Crowe
- 20 Sat: Workday on Northeast Unit with Sally Baumgardner
- 21 Sun: Workday on Schafer Unit with David Edelbach
- 27 Sat: Workday on Dot and Doug Unit with Gene St. Louis
- 28 Sun: 1:00-4:00 Prairie Plant Identification Tour with Dennis Lubbs

August

- 1 Fall Prairie Smoke mailed-10 year anniversary issue!
- 10 Sat: Workday on Northeast Unit with Sally Baumgardner
- 11 Sun: Workday on East Heinkel Unit with Mike Crowe
- 17 Sat: Hike and Seed Collecting Tour with Bill Kleiman
- 18 Sun: Workday on Dot and Doug Unit with Gene St. Louis
- 24 Sat: Workday on Schafer Unit with David Edelbach
- 31 Sat: Kittenail Unit w/West Chicago Pr. Stewards

September

- 8 Sun: Workday on Schafer Unit with David Edelbach
- 14 Sat: Workday on Big Woods Unit with Earl Thomas, seed harvesting.
- 21 Sat: 7th Annual Autumn On The Prairie, Nachusa Grasslands 10 year anniversary.
- 28 Sat: Workday on Dot and Doug Unit with Gene St. Louis

October

- 5 Sat: Workday on Main Unit with Mike Adolph
- 12 Sat: Workday on Dot and Doug Unit with Gene St. Louis
- 19 Sat: Workday on Schafer Unit with David Edelbach or Prescribed Burning Workshop with Bill Kleiman, Weather permitting. RSVP.
- 26 Sat: National Make A Difference Day - Workday on Northeast Unit with Sally Baumgardner

November

- 1 Winter Prairie Smoke submissions due. Editors meet this week.
- 9 Sat: Annual "Stone Soup" and Seed Blending Party 9:00 - 3:00
- 16 Sat: Workday on Northeast Unit with Sally Baumgardner
- 17 Sun: Workday on Schafer Unit with David Edelbach
- 23 Sat: Workday on Dot and Doug Unit with Gene St. Louis
- 30 Sat: Workday on Main Unit with Mike Adolph

December

- 7 Sat: Workday on Dot and Doug Unit with Gene St. Louis
- 8 Sun: Woodland Restoration Workshop with Bill Kleiman
- 14 Sat: Workday on Schafer Unit with David Edelbach

There are ongoing Weekday Workdays.
Call Bill Kleiman for details.

NACHUSA GRASSLANDS SUPPORT:

Gordon McKeague for office furniture
Howard Fox - new entrance sign on Lowden.

Cash donations:

Hook Larson (See article on cover)

Crest Foods via Jeff Meiners

The late William Keeton left in his will a significant gift that helped pay for the acquisition of the Clear creek unit that was originally purchased in 1995. Mr. Keeton was a member of The Nature Conservancy who had the foresight to provide for habitat purchase through his estate. A modest rock memorial is located next to the parking area at the Clear Creek Unit.

Mrs. Luelle Argile Thomas

In memory of Arnold Sebin: Mary Jo & Everett Moreland, Joel Plapp, Kevin and Pat Zilm

In memory of Thelma Carpenter: Oregon Friends of the Library.

Meusel's Dairy Delight in Amboy

Harold N. Markos - a gift of stocks for Nachusa stewardship



WISH LIST:

- Four wheel drive vehicle (truck, Blazer, etc.)
- Combine: Like a John Deere 95 (made in 1970s) or newer.
- Small fanning mill

Nachusa Grasslands is protecting and restoring a mosaic of native Illinois grassland, woodland, and wetland by returning the missing ecological processes and species.

In the winter we thin brush, during the spring we plant seed and do prescribed burns, during summer we control weeds and then harvest seeds into the late fall.

All workdays and events start at 9:30 and end at 1:30 unless stated otherwise. Feel free to bring a lunch or snack. Workdays meet at the Steward's Barn at 2055 Lowden, field trips leave from the main entrance on Lowden. Extreme weather conditions will sometimes cause a steward to cancel a workday. Late comers can catch up by following the map posted on the barn door.

Clip & Save (

rator Door

Post on Ref

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Editor-Publisher _____ *Earl Thomas*
 Associate Editor _____ *Dot Wade*
 Associate Editor _____ *Bill Kleiman*
 Associate Editor _____ *Laura Busch*
 Associate Editor _____ *Thelma Dahlberg*
 Manager of Mailing _____ *Ellen Baker*

Mailing Crew: Dolores Reynolds, Maxine Simpson, & the Emily Tilsy family.

NACHUSA GRASSLANDS UNIT STEWARDS

STEWARDS

Jay Meiners Wetland Unit

Jeff Meiners

Fen Unit

Kevin Kaltenbach

Big Woods Unit

Earl Thomas

Dot & Doug Unit

Gene St. Louis

Northeast Unit

Sally Baumgardner

Coneflower Unit

Mary Ann Hoeffliger

Main Unit

Mike Adolph

East Heinkel Unit

Mike Crowe

Clear Creek Unit

Prairie Preservation Society

of Ogle County

Kittentail Unit

West Chicago

Prairie Stewards

Schafer Unit

David Edelbach

Science Stewards:

Bird Monitoring

Butterfly Monitoring

Project Ecologist

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Chris Matson

Jim Lahman

Max Baumgardner

Hazel Reuter

Bob Schone

Mary Blackmore

Terri Clark

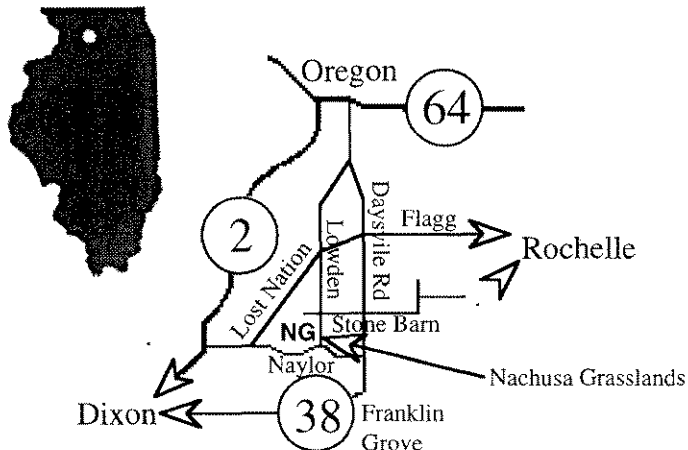
Mel Hoff

Gerald McDermott

Ann Haverstock

Mike Adolph

Dennis Lubbs



From the Editor(s):

If you know something about Nachusa Grasslands, but no one else knows because you didn't share the information, then you are *GUILTY* of keeping secrets! Send or email us articles, photos, drawings, poems, cartoons, calendar dates (items of interest to the friends of Nachusa Grasslands). Information sent on computer disk or emailed are encouraged!

New email address: Nauchusa@aol.com



Nachusa Grasslands is owned and operated by The Nature Conservancy, a private non-profit group whose mission is to protect plants and animals by protecting the land and water they need to survive.

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