

# Prairie Smoke

NACHUSA GRASSLANDS NEWSLETTER

ISSUE 7

NOVEMBER, 1990

## VOLUNTEERS KEY - TO SUCCESS

Once again it has been proved that volunteers are the key to success! Autumn on the Prairie was recently celebrated at Nachusa Grasslands. According to Max Baumgardner, approximately 500 people enjoyed the afternoon of prairie delights.

The idea of hosting an open house at Nachusa Grasslands was brought up at the August 1990 meeting of the Steering Committee at Baumgardner's barn. Due to time constraints October 13th was chosen instead of holding the event during Prairie Week in September. Fortunately the weather cooperated, even at that late date.

The Nature Conservancy was generous in supporting the event financially. Tents and other items were rented in order to make the event complete. The Welcome Tent provided a place to sign in, to receive brochures and to become a volunteer!

In the display tent we were fortunate to have a great variety of interesting people. Dr. Bo Dziadyk, Augustana College, presented his fascinating work on plants at Nachusa. (See article on page 2.) Ron Panzer's insect and rare butterfly display provoked many questions. Thelma Dahlberg provided an insight into local Indian lore while John Spangler entertained his audience with Nachusa history.

Alyssa Rod displayed her 4-H prairie project along with the Lee County Natural Area Guardian prairie video which Matt Hammill from Channel 8 TV, Moline, IL, created.

Local artists Pat Lathe, Fran Swarbrick, Sheila Holbo, Judy Dixon and the Dixon Camera Club displayed original works that showed the natural beauty of our area.

Cinnamon muffins and fresh apple cider made the food tent a pleasant place to sit and relax.

Several walking tours led by Tim Keller, Dennis Lubbs, Cassandra Rodgers and Chris Bronny attracted hundreds of followers. Ann Haverstock led a special bird walk late in the afternoon which proved to be very successful. (See report on page 7.)

A shuttle bus transported visitors from the "Baumgardner Parking Lot" to the tent area. The Dixon Kiwanis Key Club assisted in traffic control as did Gene Rod.

Nachusa intern Ted Wood and the Franklin Grove FFA erected 75 directional signs to assist visitors. These signs were removed and are available for future use. Doris Carey made informational signs for the tents and displays which were very helpful.

Dr. Robert Betz inspired many of us who are continually working to restore prairies in Illinois. His talk attracted many listeners as did a special storyteller who specialized in "Prairie Tales".

I especially want to thank all the faithful volunteers who not only spent Saturday October 13th working at Autumn on the Prairie, but who also spent many hours supporting me! Thank you! I love volunteers!

.....by DEBRA OSMER

WE  
NEED  
YOU!



## A DISSERTATION ON BLUEGRASS: THE NATURAL WORLD AS TEXT

Bohdan Dziadyk

(Again your editor will try to condense a scholarly paper. Please bear with me!)

"In the poem 'Song of Myself' from his epic work 'Leaves of Grass' Walt Whitman has a child ask, 'What is the grass?' Readily admitting that he knows no better than the child, the author nevertheless attempts an answer. Perhaps it is the 'hopeful green stuff' of his disposition, or maybe it is the 'handkerchief of the Lord' properly scented that it may call attention to its maker."

Thus begins Dr. Dziadyk's dissertation. "For nearly two decades, since beginning graduate school, I too have been asking myself, 'What is grass?'" Bo continues. Dr. Dziadyk is a grassland ecologist. He prefers field work to indoor experimentation. Bo cannot tell you why he chose grass as opposed to snow leopards, great white sharks or exotic orchid plants to study. He adds, "the most common things are often the least noticed and the least appreciated".

Found in arid to temperate to tropical regions and in marine to freshwater habitats and at all but the highest elevations and latitudes the grass family far surpasses all others in term of completeness of representation in all parts of the world.

Grasses are environmental success stories. Species range in height from inches to the bamboos that may be 120 feet tall. The basic vegetative and reproductive structures of all grasses are all the same. Unlike most plants, grass stems and leaves grow from the base rather than the tip. This allows grasses to keep growing despite damage from grazing, lawnmowers or fire.

Belowground, a grass plant usually consists of finely divided mass of roots that are effective in stopping soil erosion. The rapid growth and decay of these roots through the centuries develops a deep, rich, and fertile soil. The most productive soils are found in grassland regions.

The feature that really sets grasses apart from other plants is the reproductive structures. Grass flowers are inconspicuous and hidden. Because grasses are wind pollinated they lack brightly

colored flowers and sweet fragrance used by other plants to attract insect pollinators.

The three great food plants of the world are all cereal grasses. The oldest of the "big three" is wheat. Corn and rice are the other two. Currently rice feeds more people than any other single food. Corn was so important for survival it assumed a central focus in religion of the Aztec, Inca, and Maya peoples.

Forage grasses provide food for herds of grazing animals everywhere. In the American Midwest the tallgrass prairie was dominated by grasses that are palatable and nutritious to native and domestic animals. Because early settlers were more interested in growing crops than raising cattle only tiny fragments of the original prairie remain.

"For the past 3 summers I have been studying the ecology of plant communities in two tallgrass prairie preserves", Dr. Dziadyk informs. In 1988 and 1989, Bo and colleague Steven Lehtinen, on a research grant, analyzed the structure and functioning of the Anderson Prairie in northwest Iowa. During the 1990 growing season, Dziadyk started a long-term ecological study of Nachusa Grasslands. The goals of the research are to acquire baseline information of the major plant communities and to monitor changes during planned restoration activities that will continue for decades. An undergraduate research fellow, Melanie Harding of Albion College in Michigan, assisted Dr. Dziadyk this summer.



Following is an example of how they read the grassland text....."It is an afternoon in July. Both the temperature and the humidity are above 90, and the sun shines from a cloudless sky on the shimmering prairie. We move from one quadrat (sample unit) to another at one of our research sites, a dry hilltop with a large bur oak tree known as Doug's Knob. I set up the half-meter sticks to fix the boundary of the next quadrat. First we record the graminoids present - little bluestem, Indian grass, June grass, needle-and-thread, and Kentucky bluegrass. Then we count individuals of the forbs or broad leaved, herbaceous species: there are eight silky asters, four whorled milkweeds, two pennyroyal and five pale purple cone flowers. Now I clip all the grasses at ground level and Melanie places the leaves and stems into a paper bag. We do the same for the forbs and finally scrape up all the detritus on the ground within the quadrat and place it into a third bag. We repeat the procedure for eight quadrats. At the end of the day all bags will be returned to the laboratory on campus and placed into biomass ovens for thorough drying. Later, we will weigh the bags and determine average biomass values for the several components. The days in the field are long. Today we will spend nine hours finishing the work at two sites. Tomorrow, if it does not rain, we will return and do the same. Every two weeks from late May to September this procedure will be repeated at each of the four research sites at Nachusa Grasslands."

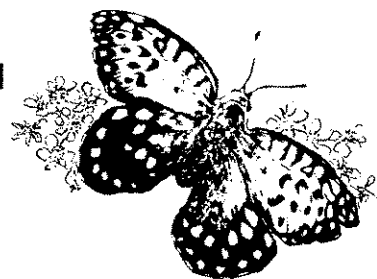
Dr. Dziadyk says that such research is tedious but necessary if we are to understand the diversity of our ecosystems. He feels such systems may hold the key to future advances in agriculture and medical technology.

"So, what is the grass?", he continues. "It is food and drink for us and forage for our animals; it is the soft carpet of our lawns and the tough stabilizer of our soils", Dziadyk adds. He concludes his paper as he started with a poem by John Howland Beumont entitled "An Obeisance to Grass".

"For grass is sea and sun,  
Is dust of earth in song,  
Is blood in vein and bone:  
Most humble and most strong."

\*\*\*(Editor's note: From this dissertation we can begin to realize how important Dr. Dziadyk's work is to Nachusa Grasslands and our understanding of this rare ecosystem. Let's all be very careful as we view his research sites. You may walk around the edges but please do not enter, pick or disturb in any way these areas. Thank you!)

## INSECT TRANSLOCATION PROJECT AT NACHUSA GRASSLANDS



*Royal fritillary on grassland  
Joseph Vogelgerang*

(Following is the promised continuation of Ron Panzer's report on Nachusa Grassland insects.)

Twenty-five adult pairs of Bunchgrass Grasshoppers were released on one of the northernmost hilltops on July 1, 1989. This species is closely associated with little bluestem. One generation appears each year.

How are these insects captured for translocation? A very interesting process. Each grasshopper is captured with a butterfly net, then placed by hand into a portable nylon mesh cage for transport. These particular pairs were released at about 5:00 pm in the evening.

Mr. Panzer and associates were not able to find any of the species the following year. They assume the severe drought resulted in the near total die back of the vegetation shortly after the release. This fact may have caused the demise of the founding population. A second release will be attempted in 1990, this time with 100 individuals.

A relatively small tawny and hoary insect that bears a superficial resemblance to a frog, the Prairie Froghopper, was another species introduced. Two hundred (51% female) were translocated on June 22, 1989.

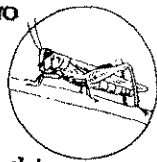
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The animals inside the nylon cages did not travel well and appeared in poor condition when released. On June 27, 1989, 200 more Froghoppers made the trip to Nachusa. This time they traveled well and appeared in good condition. A survey in 1990 at the release site will tell the story. Another 200 - 400 will be released at that time.

A prairie butterfly, the Gorgone Checkerspot, reported to be somewhat common in west central Illinois, is very uncommon on hill and sand prairies in northern Illinois. This butterfly reportedly has 4 broods in west central Illinois but is limited to 1 or 2 broods in the Rockford region. The adults rely heavily on *Coreopsis palmata* at the donor site.

Twenty-four females and 20 males of the species was translocated to one of the northernmost hilltops on July 3, 1989. Each butterfly was captured with a butterfly net, then placed by hand into small containers inside ice chests for transport. They were released at approximately 4:00 in the evening. They traveled well and were in good condition on arrival. "Two flew to coreopsis flowers and fed...one exhibited territorial behavior", reported Panzer.



When returning on July the 5th, they were shocked to find the drought had taken its toll on the coreopsis. Schafer's Knob was in better condition. "We were thrilled to find that at least 2 of our earlier inductees had managed to find this 'oasis' on their own!", Panzer stated.

He continued, "We know that at least 1 female successfully laid eggs; we captured a freshly emerged male on August 10 on Schafer's Knob."

In the 1990 attempt, 50 - 60 individuals will be fed a concentrated sugar solution to "recharge" them prior to release.

(Isn't this interesting information? We all have so much to learn about Nachusa Grasslands. Let's be on the lookout for each of its inhabitants. Perhaps we will have another update soon to see how our guests are faring!....Editor)

As the seasons change and seed collecting activities come to a close at Nachusa Grasslands, thought turn to fall burns. Recent visitors may have noticed mowed firebreaks on the Grasslands. On November 3, forty-three people gathered at the Loveland Community Building in Dixon to learn about the role of fire and its use in prairie management. The workshop, sponsored by The Nature Conservancy, was led by Vegetation Specialist Ed Collins from the McHenry County Conservation District, and included veteran burners as well as eager newcomers.

Collins opened by explaining the glacial history of northern Illinois and how this and other factors resulted in the evolution of prairies. He also discussed the history of fire in the mid-west and its vital role in the maintenance of prairies today.

Much of the workshop focused on the technical aspects of burning and the importance of careful planning and safety in controlled burns. Collins stated, "While every burn has certain dangers associated with it, a successful burn is one that has been properly planned." The discussion, livened by questions from the audience, focused on preparing firebreaks, planning burns, equipping burn crews, and selecting burn days with suitable climatic conditions.

After a brief intermission and refreshments, burn scenarios were discussed. The audience offered scenarios in forest and prairie settings which ranged from a fraction of an acre in size up to 700 acres. Collins then offered several burn prescriptions for each site based on varying climatic factors.

Workshop participants also received handouts detailing the entire process of controlled burning. Many people expressed an interest in helping at the Nachusa burns this fall and next spring. Anyone who would like to know more about controlled burning or who would like to help with burning at Nachusa Grasslands should call Mike Crowe at 815/393-4572 for more information.

.....by CHARITY HILCHEN

# NACHUSA GRASSLANDS



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**Be a part of the team!  
All proceeds support  
Nachusa Grasslands.**

# SEED COLLECTING CONTINUES THROUGH INDIAN SUMMER

6

by CHARITY HILCHEN

Many volunteers at Nachusa hoped the wonderful seed collecting weather would last and last! However, the recent cold snap made it obvious that the days of collecting this fall were numbered. Signs of collecting - combine stubble, naked Indian grass stems, and cut blazing stars - mark the landscape and testify to the end of fall.

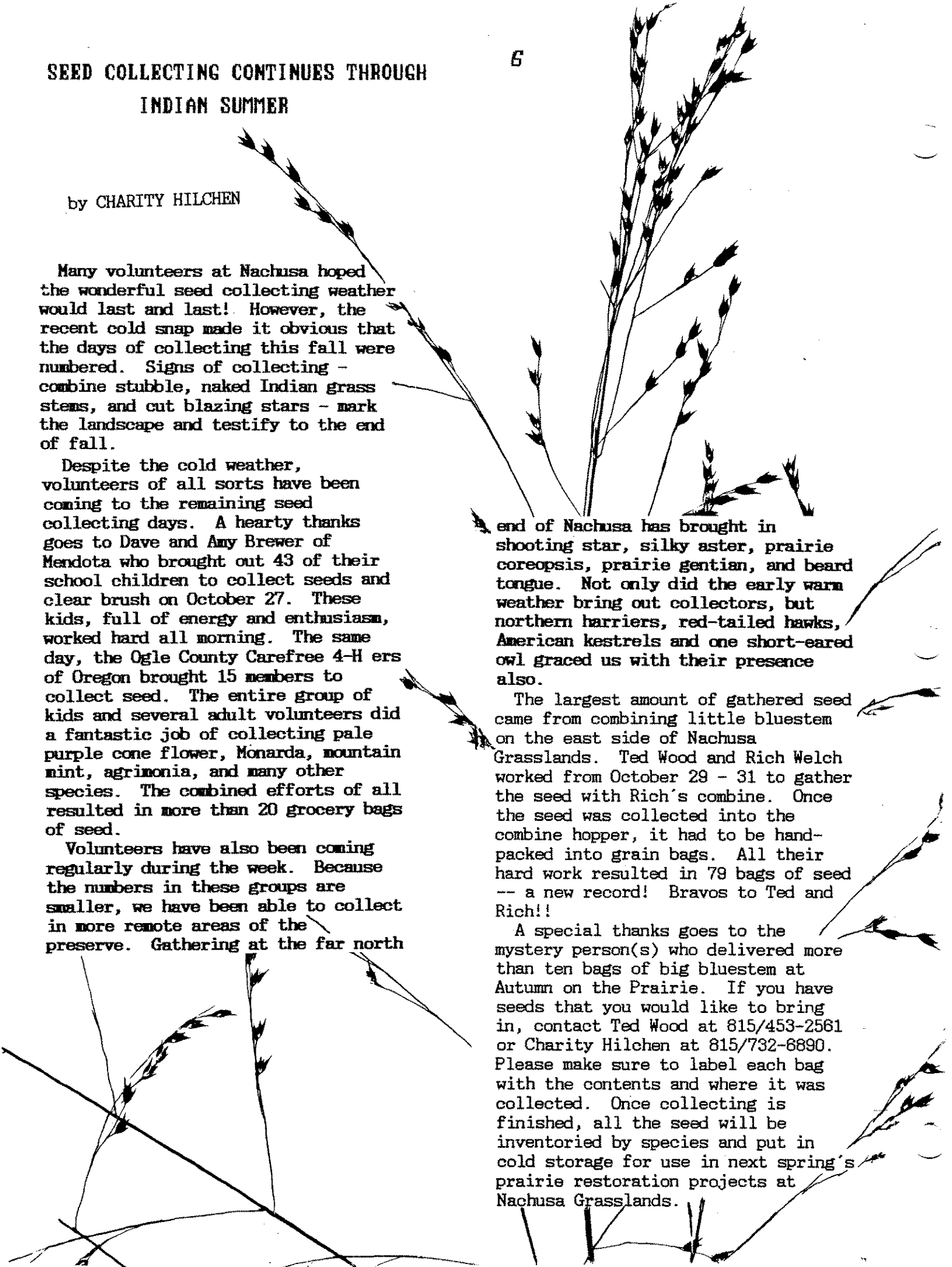
Despite the cold weather, volunteers of all sorts have been coming to the remaining seed collecting days. A hearty thanks goes to Dave and Amy Brewer of Mendota who brought out 43 of their school children to collect seeds and clear brush on October 27. These kids, full of energy and enthusiasm, worked hard all morning. The same day, the Ogle County Carefree 4-H ers of Oregon brought 15 members to collect seed. The entire group of kids and several adult volunteers did a fantastic job of collecting pale purple cone flower, Monarda, mountain mint, agrinonia, and many other species. The combined efforts of all resulted in more than 20 grocery bags of seed.

Volunteers have also been coming regularly during the week. Because the numbers in these groups are smaller, we have been able to collect in more remote areas of the preserve. Gathering at the far north

end of Nachusa has brought in shooting star, silky aster, prairie coreopsis, prairie gentian, and beard tongue. Not only did the early warm weather bring out collectors, but northern harriers, red-tailed hawks, American kestrels and one short-eared owl graced us with their presence also.

The largest amount of gathered seed came from combining little bluestem on the east side of Nachusa Grasslands. Ted Wood and Rich Welch worked from October 29 - 31 to gather the seed with Rich's combine. Once the seed was collected into the combine hopper, it had to be hand-packed into grain bags. All their hard work resulted in 79 bags of seed -- a new record! Bravos to Ted and Rich!!

A special thanks goes to the mystery person(s) who delivered more than ten bags of big bluestem at Autumn on the Prairie. If you have seeds that you would like to bring in, contact Ted Wood at 815/453-2561 or Charity Hilchen at 815/732-6890. Please make sure to label each bag with the contents and where it was collected. Once collecting is finished, all the seed will be inventoried by species and put in cold storage for use in next spring's prairie restoration projects at Nachusa Grasslands.



Special THANKS to MARIA URICER for the excellent job she did on the Special Seeding Gathering issue of Prairie Smoke.



NACHUSA BIRDS

October 13, 1990 5:00 P.M. Bird Hike  
by ANN HAVERSTOCK

With high hopes, twenty or more Nachusa birders headed into the setting sun for Coyote Point. I was concerned earlier, because the fields were a bit too quiet during Dr. Betz's talk. I need not have worried.

Migrating White-crowned Sparrows, sparrows easy to ID in any light, popped up around us. Soon, Eastern Meadowlark, American Bluebirds, Yellow-rumped Warblers, White-throated Sparrows, Common Snipes, Great Blue Heron, Rufous-sided Towhee, and many permanent resident species all made their appearances. As the light dwindled and birders headed back to their cars, our ranks thinned.

BUT....wait....Oh joy! Oh rapture! We, who tarried until 6:15 around Coyote Point and the western end of the soybean field, were truly fortunate. To the delight of the eight remaining birders, a fully bibbed Harris' Sparrow, *Zonotrichia querula*, perched openly in the shrubby border. This bird is considered out of its winter range, but a few are sighted in Illinois each year. "It is thought that winds and other weather factors determine whether Harris' Sparrows winter in Illinois." (Bohlen, 1990). Nachusa Grasslands contains the correct

winter diet, so why not hope a small flock might remain through the winter. It should be noted that this species was also sighted at Nachusa Grasslands during the spring migration.

Many thanks to the driver of the shuttle bus, who patiently waited to see us safely to our cars. He punctuated another special day at Nachusa Grasslands.

(Next issue of Prairie Smoke will contain Ann Haverstock's summer breeding birds survey results.)

## BRUSH & FENCES FALLING

Control of brush and removal of fencing is an important part of returning Nachusa Grasslands to its natural state. Thanks to many volunteers and me, work of the interns, much progress is being made.

In the eastern half of the preserve, all fences except those marking the property line have been taken down. I am currently looking into the possibility of recycling the steel posts and wire rather than landfilling it. If anyone has a large flatbed truck or trailer on which we could haul these materials, it would be greatly appreciated. (Please contact me at 456-2561.) Nachusa looks great without the fences — wide open with room to roam.

Ed Pleskovitch and Mike Adolph have been out cutting regularly and two brush cutting work days were held. Fencerows and other problem areas were reduced to firewood, and the views are getting better and better. After a burn or two and check-ups for resprouts, these areas should be ready for the return of prairie. Now all that is left is the multiflora near Wade Creek, opening the savanna, and the cedars on Schafer knob and...KEEP UP THE GOOD WORK VOLUNTEERS!

.....by TED WOOD

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**NOTES FROM SALLY**

**8**

JUNE 22

"I'm seeing great results from my seed collecting and scattering from only a year ago. .... I knew there was enormous value to this seed collecting stuff, but the experts told me I'd have to be patient and wait a few years. The Poplar Creek Stewards are coming out to help.... and the Geneva Methodist Church Youth Group "

JUNE 26

"I think it's a good idea to flood that 'Nov. 87' area with seeds to crowd out the aliens."

AUG. 6

"Ed Pleskovitch, Dot Wade and Isabel Johnston gathered seeds ....other helpers were Deb Osmer, Wally Janoskey, Ellen Baker, Becky Detig, Jim Edwards, Terry Zeller, Mark Ruby, Mike Adolph, Red Turner, Bernie Sexton, Cindy Wilson and her son Ryan, Pat Cornell and Vicki Canon....I'm trying my hand at starting June grass in pots at home."

AUG. 21

On Aug. 20, nine people came to our seed collecting party. Guides Lisa Mats, John Clusen, Marj Walls, Diane MacNeille, Barb Rutherford and myself from the Morton Arboretum were joined by Ellen Baker and Tom and Marilyn Moltz-Hahmann.....Looking forward to those fall interns to take over....."

SEPT. 12

"We had another seed collecting day on Sunday, Sept. 19th and Joann Tremulis from Chicago and Mike Crowe helped to pick several species of prairie flowers and LOTS of side oats grama"

OCT. 21

"There are 12 drums in the barn as I write this, and 5 are filled with a wonderfully rich assortment of seeds from native plants.....Twelve people came for the Oct. 20 collecting day. We car-pooled to The Meiners Wetland for seed.....The group was well paid by the sighting of a very large deer with a rack of antlers so big the animal looked ungainly."

*The  
Nature  
Conservancy*

**BRINGS YOU PRAIRIE SMOKE,  
THE NACHUSA GRASSLANDS NEWSLETTER.**

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