

NACHUSA GRASSLANDS ECO

FIRST ISSUE



Welcome to the first issue of the **GRASSLANDS ECO**. We hope to keep all our readers updated on Grasslands Happenings!

Nachusa Grasslands is a Nature Conservancy preserve. The Illinois Chapter of The Nature Conservancy is one of the oldest and largest conservation organizations in the state. The Conservancy is a national, private, non-profit organization. The Nature Conservancy's mission is to preserve the full array of biological diversity by finding, protecting, and maintaining the best examples of communities, ecosystems, and endangered species in our natural world.

CONTACT PERSONS

If you have questions about Nachusa Grasslands or wish to make arrangements to visit the area you may call one of the following CONTACT PERSONS.

- * **The Nature Conservancy**
Monday - Friday, 9 a.m. - 5 p.m.
(312) 346-8166.
- * **Ellen Baker** on Wednesdays between
7 and 9 a.m. (815) 456-2283.
- * **Isabel Johnston** on Mondays around
9 p.m. Let it ring 6 - 8 times!
(815) 626-3049.
- * **Cassandra Rodgers** on Monday from
8 a.m. to Noon. (815) 284-5455.

THOSE DARN MULTIFLORAS

By: Isabel Johnston

The summer was hot so early morning or late afternoon was cooler for our 2 or 3 hours work on the thorny multifloras. Ellen Baker, Russ Welch, Mary Adams and I persevered with loppers. We spent parts of weeks all summer at the task. All multifloras were thought to be cut to the ground. We estimate we cut well over 100 multifloras to the ground.

Those with chain saws, Tim Keller, Jack Keegan and Gene Adams, cut red cedars and cherry trees. A few red cedars, big, were left for shade. Was this wise?

So far most work was on "Dot's Knob". However, we plan to work "Doug's Knob", "Half Knob" and a sandstone savanna near the place we heard and saw 3 wild turkeys. These are parts we and Dot Wade agreed to adopt.

Birds sighted were bluebirds, grasshopper sparrows, dickcissels, wild turkey and we think crows were mobbing owls.

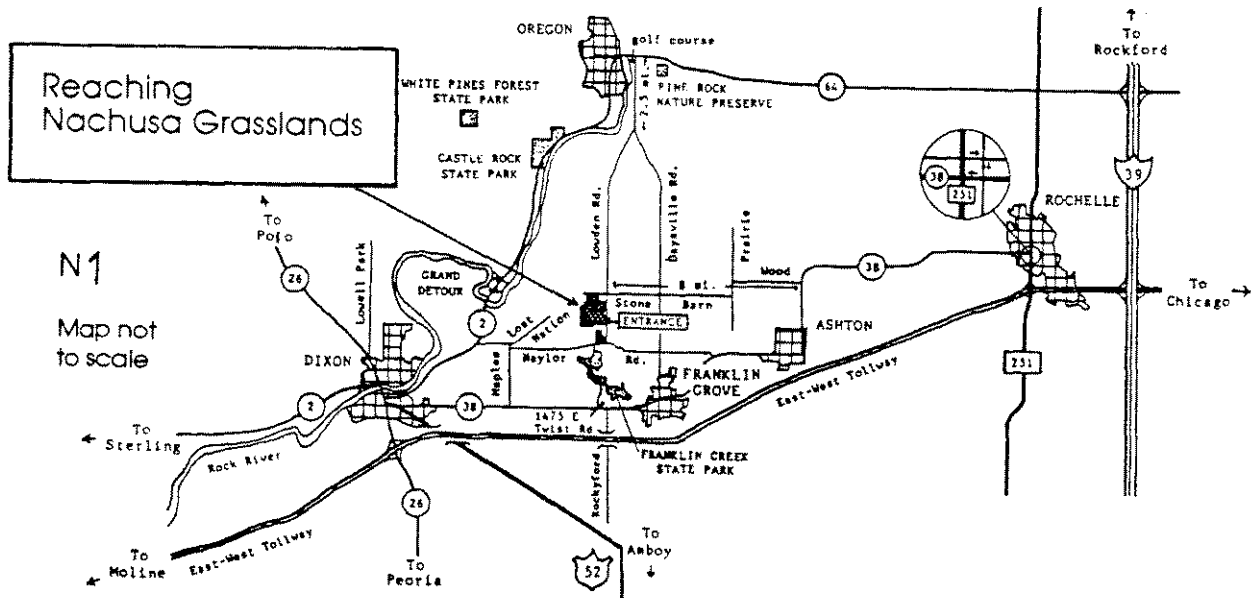
Favorite quantities of flowers were shooting stars, cream indigos, and cone flowers. A few prairie smoke plants and a surprising number of fame flower. And, there were many other smaller numbers of both prairie grasses and prairie forbs on these knobs.



GETTING TO KNOW NACHUSA GRASSLANDS

Nachusa Grasslands is truly a wondrous place for nature lovers. Found on its menu of delights are rare and endangered plants and animals. You may have the opportunity to catch a glimpse of the upland sandpiper and see the flash of the bluebird. And listen, hear the bob-o-link? If your visit is in the fall you see the lovely pink, red, russet and mauve grasses. Here and there are Indian grass and dropseed and the dominant little bluestem. And if you are alert you may spy some porcupine grass. All season long it is a treasure box of gems! Birdfoot violets, the lovely spring forb the butterflies love, prairie smoke, and indigo are just the start of a parade of beauty throughout the flowering season. Wildflowers include the whole spectrum of color from spring to fall. Low sandstone knobs with thin gravelly soil, bedrock outcrops, savannas, fens, marshes, sedge meadows, and prairie can all be found at the site. You will see Nachusa's rarest residents, prairie bush clover (*Lespedeza leptostachya*) and kittentail (*Besseyia bulli*), along with the more common milkweeds, sunflowers, gentians, and the largest skunk cabbage I've ever see, and this is just the start of what you experience. There are deer, beaver, coyote, and wonderful open space and vastness.

This wondrous area can be visited anytime. You may call one of our contact people (see page 1) or take a self-guided tour. Please remember, however, this is a precious jewel, treat it with care. We ask that no plants are picked or dug up and no animals are disturbed.



CHRIS'S COMMENTS.....

By: Chris Bronny

The real significance of Nachusa Grasslands is not only the incredible diversity of native biota that has managed to hang in there despite all these years of ecological neglect, but more importantly, its sheer size as a preserve (over 600 acres have been protected so far). Illinois is sadly lacking in large-scale wilderness areas - Nachusa Grasslands is a beginning in reversing this situation.

The open, quickly recovering knobs of the preserve need little active management - fire takes care of most unwanted species - but on the edges of the high quality "nuclei" of prairie, savanna, and wetlands, an active program of cutting brush (*multiflora rosa*) and girdling trees (elm, box-elder, cherry) is being undertaken. This helps to speed up the succession of these areas back into healthy, high quality natural areas within the complex of the preserve.

As for the effect of this year's drought on the prairie at Nachusa? I don't think we have to worry about these plants in the long-run. They've had the benefit of thousands of generations of genetic adaptability to this region and have survived periodic droughts in the past, and will do so in the future - at least until the next Ice Age! That is the "staying power" of prairie.

I was disappointed to have missed gathering seeds from Birdfoot Violet (*Viola pedata*) this summer. It just goes to show how much there is to learn about this place. I had heard that there were a few knobs containing Birdfoot Violets,

but I didn't know exactly where. Mapping locations of existing high-quality species found within the preserve would be an invaluable tool for future reference. Hopefully, we can obtain seed next year and scatter them onto appropriate sites in the area. These plants can be grown quite easily from seed. They are the primary larval food source for the Regal Fritillary Butterfly, an uncommon grasslands invertebrate found at Nachusa Grasslands.

The knobs throughout the preserve are also loaded with well-established stands of little bluestem, prairie dropseed, pale purple coneflower, rough blazingstar and other high-quality species. Even if our initial attempts at restoration are set back because of the drought, the planted areas will benefit from the close proximity to these knobs where seeds will be moving in over the years to come until a climax community has become established. Within twenty years, Nachusa Grasslands will be one of the midwest's finest showcase preserves - a model for future restorations of this magnitude to follow.

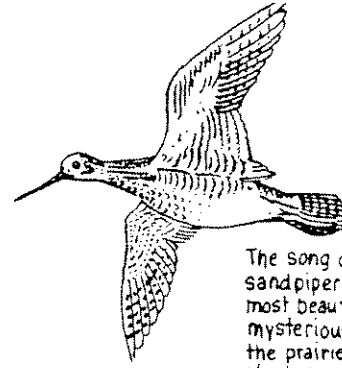
When the science of ecological restoration and management began to really develop in the 1960's, the first priority for our remaining natural areas was to "save the pieces" - the high quality remnants such as the one-acre settler cemetery with "grade A" prairie still intact; the five-acre wetland harboring an endangered species; and there was no question of its importance at the time. But over the years, we have begun to look at many larger sites that were previously dismissed as being too

(continued on page 4)

Chris's Comments (cont.)

badly degraded to preserve, but are finding that these sites still maintain their ecological integrity (albeit shattered in most cases) and can recover. Not enough credit is given to the ability native plants have to come back into an area if given half a chance. Also, the issue of habitat fragmentation and the "Island Effect" has compelled us to look at the preservation and restoration of these larger sites. There is a growing awareness in the public and scientific communities that if our rare, threatened, and endangered native biota is to survive into the future, then they are going to require expansive, suitable habitat. This is why the preserve at Nachusa Grasslands is so critical for the long-term survival of certain species such as upland sandpipers, bobolinks, and other indigenous mammals, reptiles, amphibians, and grasslands invertebrates.

You have to remember that there has been over 140 years of disturbance (or lack of it) on this site, and recovery back into a high-quality natural area won't happen overnight. It certainly won't happen in my lifetime, but I'm glad The Nature Conservancy had the foresight to begin such a substantial, long-term commitment for future generations to enjoy. The most exciting and rewarding aspect for me with this whole project is that I was able to help out from the beginning.



COURTESY
OF
I.D.O.C.

The song of the upland sandpiper is one of the most beautiful and mysterious sounds on the prairie. While circling slowly in the sky, the sandpiper sings a long rolling whistle
whoo/eeeeeee whoo/ooooo

MEET CHRIS BRONNY!

Chris Bronny from Galva, IL has been the "official" volunteer steward at Nachusa Grasslands this past summer. Chris lives with his wife, Mary Kay, and their three year old daughter, Krystiana. He teaches 7-8 grade science, and has been at the Galva Middle School since 1981. Besides teaching, he is involved with a number of local preservation and restoration projects in west-central Illinois, including a 35 acre tallgrass savanna restoration in Knox County. His dream is to see the creation of a number of large scale, a few thousand ares each, wilderness preserves across Illinois and the midwest.



GEOLOGICAL HISTORY

By: Tim Keller

Turn the clock back some 400 million years. The area that is now Nachusa Grasslands was covered by ocean (inland seas). Sand washed in from higher landforms and created beaches and dunes. Over time the sand grains cemented together and formed sandstone. Geologists call this formation St. Peter. It is very pure silica and widely used for glass. In fact, the sand from this formation was used to make the lens for the 200-inch Hale telescope at the Mt. Palomar Observatory near San Diego, California.

Later, shallow seas covered the area. As a result, layers of limestone were deposited over the St. Peter sandstone. Again and again the seas advanced and withdrew. Finally, the land was uplifted. Erosion of the limestone then took place. At the time, Lee County probably resembled Jo Daviess in topography.

About 2 million years ago, sudden cooling occurred; the climate changed. The land was locked in the grips of a continental ice sheet extending over most of Illinois, except at extreme Southern Illinois and Northwest Illinois (Jo Daviess and northern Carroll). Like the seas before, the ice sheets advanced and retreated many times. Ancient river channels filled with glacial debris, disrupting stream patterns. About 22,000 years ago, a major ice advance forced the Rock River to change its course to the present one. Prior to that time, the Rock River flowed from Rockford to Rochelle on a southward course, joining the ancient Mississippi

north of Princeton. As a result, the thickest glacial drift in the state is found in southeast Lee County where the Bloomington end moraine crosses the old channel of the Rock River. Later, another ice advance, the Green Bay Lobe, plugged the new Rock River channel with sand and gravel. Oregon, Byron and Grand Detour are setting on those gravel deposits. In Dixon, where the Illinois Central Railroad Bridge stood, the gravel is 105 feet thick. Bulletin #49 - Geology and Mineral Resources of the Dixon Quadrangle, published in 1926, states that when the last glacial meltwater flowed through Dixon, the water level was 45 feet above its present level. This happened about 11,000 years ago. At the same time, streams like the Franklin and Chamberlain became plugged with sediment and built up to the level of the Rock River. Huge ice jams occurred causing a backup of water that eroded the uplands above the streams. Glacial deposits were stripped away leaving sandstone and limestone exposed on the higher positions. For this reason, one finds granite boulders setting atop sandstone outcroppings. On the sideslopes, the sand and silts were carried away to lower positions, leaving boulders at or near the surface. Today, along field fences, adjoining pastures, are rock piles accumulated from years of picking up glacial debris. Every year, freezing and thawing bring a new crop of rocks to the sub-surface, waiting to extract their toll on farm equipment.



READER'S CORNER

This space will be reserved for our readers. We would like your nominations for a permanent name for our newsletter. We encourage readers to ask questions and submit comments concerning the newsletter and any phase of the Nachusa Grasslands project.

Do any of our readers have pictures or drawings of the Grasslands or interesting incidents dealing with the area? We would like to see and hear them!



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As a child May Domack
artist at Morrison, hunted for
the few birdfoot violets ~~in~~ with
2 dark purple petals. This was in
It's
Isabel Johnston
310 S. 2nd St
Rock Falls, IL 60071
Treat Regal & Antillarics
Osway
seeds ~~with~~ ~~worms~~ feed on bird foot
violet leaves ~~which seem to be numerous~~
violet leaves ~~which seem to be numerous~~
violet leaves seem to be on one hill at
Nachusa. This is a hill with
many of the nice fall flowers, too.
I call it Tim's Limestone Outcrop west.