



PRAIRIE SMOKE

Nachusa Grasslands Newsletter

Issue 23

January 15, 1995

The Desire of Flames - Attending Kleiman's Burn Workshop

By John Santucci

Fire, we now know, was instrumental in keeping our prairie/savanna ecosystem intact. Depending on how much American Indians used it for intervention in their surroundings, fire may have actually helped create much of what we think of as natural, native Illinois. Today, we who presume to restore or recreate this landscape, must use fire in our work. And so it occurred to me, as a longtime supporter and present board member of the Conservancy here in Illinois, that maybe I should have some firsthand experience with combustion as a conservation tool. Besides, like most humans, I have a somewhat primal fascination with fire. No one had to twist my arm when Bill Kleiman offered a "burn workshop."

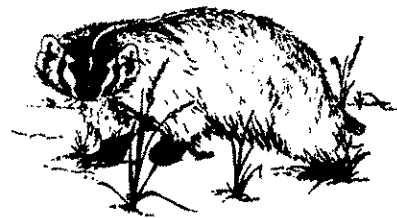


"O for a Muse of fire, that would ascend
the brightest heaven of invention."

—King Henry V, prologue 1

So, one rather average November Saturday, half-a-dozen would-be arsonists gathered in the yellow house to learn how to burn a prairie properly — that is, without razing the neighbor's tool shed, or worse. We spent an hour or so reviewing a thirty-page text Bill had sent out beforehand. The text provided a pretty good grounding in the basics of burning. Naturally, there was an emphasis on safety. Thus informed, we sallied forth to a practice burn area of about an acre in the southern quadrant of Nachusa's main tract.

Some of us donned fire retardant clothing available from TNC. Others stayed safe in our own natural-fiber



clothing (cotton works just fine) and leather boots. We slung water backpacks with handpumps across our shoulders. We picked up a rake or a flapper (which is a kind of fire-swatting mud flap mounted to the end of a broomstick). We walked over to the six-foot wide firebreak Bill had mowed around the area to be burned. We made a plan. We assigned jobs. We were ready!

We started a small backfire along the upwind edge of the firebreak. With the help of a gentle breeze, the ten-foot strip of fire immediately flared out of control and threatened to consume all of Nachusa, the yellow, house, Max and Sally's place and probably Lost Nation.



Risking life and limb, we attacked the searing maelstrom. We sprayed. We flapped. We fumbled with our gear. We inhaled choking smoke. We backed away from the heat, and reattacked. Suddenly, miraculously, the fire was out. With elevated pulse rates, we'd just completed our first lesson. In thirty seconds, we'd accrued a good deal of both respect and confidence. Our "wildfire" had burned all of a couple feet past where we'd intended it to stop.

We regrouped, analyzed where we'd gone wrong, and started another backfire strip. This time we controlled it, and extended it a couple of yards along the firebreak. It was work, and a bit dirty and smokey. But we were actually doing a small "prescribed burn." By the time we broke for lunch, we'd lighted a headfire, which met our backfire and consumed most of the acre we'd intended to burn.

After lunch, we attacked a more ambitious site of maybe five acres. As the afternoon progressed, we became more proficient and confident. The work, particularly lugging around the water, became work. As daylight turned to darkness, we watched our carefully controlled fires progress through the grasses and brush. Tired and a little sore now, we all experienced a visually stunning few minutes as the groundfires burned past a couple of oak trees, illuminating them against the black of the night sky.

From the Preserve

Manager Bill Kleiman

Here is how we harvest seed. When the plants have finished flowering and the seedheads are about ready to let go of their seed we harvest 10% to 50% of the available plants depending on how robust the populations are. Seeds are clipped with scissors or stripped by hand and placed in paper bags, or cloth bags made to suspend from the neck or shoulder or waist. The waist suspended bag is made of a rubberized canvas with a three-inch wide belt and heavy duty buckle. It holds a grocery bag of seed and you don't have to reach as far to let go of your handful.

July is a time for harvesting too. As is June. May blooming species will likely drop their seed four to six weeks later so that regular visits to collecting areas are necessary, and pleasant. We harvested from some areas on the preserve every other week throughout the summer and fall. We brought botany books, binoculars, and bags and found new seed sources each time out: shooting star, prairie smoke, bottlebrush sedge, lead plant, northern drop seed grass, downy yellow painted cup, turtle head, pale purple coneflower, showy goldenrod, cylindrical blazing star, fringed gentian, bottle gentian, prairie gentian, silky aster... over 80 species were harvested.

In October we combined about 30 acres of little bluestem prairie that had been burned the year before. The grasses' response to burning was to produce prodigious amounts of seed; perhaps to take advantage of the open ground from the removal of thatch, or the increase in sunlight to the lower leaves of the grasses. Along with the little bluestem grass the combine catches other seeds of grasses and flowers and weeds, so we are careful where we use this machine. Bags and bags and, well 63 big bags and 35 barrels chock full of ripe seed waiting for the touch of moist soil. In some areas where a combine should not tread we pulled a seed stripper with our lightweight all terrain vehicle. A seed stripper is a five foot rotating brush that flings seed into an attached wood box.

What to do with all this seed? We broadcast by hand or pull a seed drill behind a tractor. The hard part is determining where to put which species. We consider the soil types, topography, aspect, successional stage, hydrology, rarity of the seed, and size of the area.

For example, on a few fields we are connecting prairie remnants through the planting of former agri-



cultural fields. The bluestem combine mix does well on the drier and exposed soils. There are several species that we know do well on these new plantings: round headed bush clover, yellow coneflower, pale purple coneflower, even prairie cinquefoil and others. Some plants will only be successful in an older prairie planting, old field, or remnant prairie. These plants seem to want to be in a mat of rooted soil, they are perhaps adapted to compete with the other plants for nutrients or water. They may derive a needed resource from the other roots that they grow within. We know that these conservative species don't do well in newly disced plantings.

The bottom line of our harvesting seed is to produce as fast as possible a large, cohesive habitat that has the natural richness of species that the land once had. A diversity of grasses and flowers will yield numerous types of butterflies, beetles, worms, frogs, birds and soft furry creatures. Our light weight seed bags hold the riches of a natural heritage returning.

Fall Work Accomplished:

Kittentail Unit - Cut, stacked and dabbed herbicide on cut stubs. Left all oaks. Joined two areas together that have been cleared of multiflora rose, briars, cherries. A prescribed burn is planned for next Spring. Thanks to: steward Mell Hoff & Herb Demmel, Scott Hensey, Herm Jensen, Bob Kelly, Bill Kobiak, John Rohleder, Phil Sajdak, Steve & Monica Sentoff, Dean Weidman, Kevin Kaltenbach, for a job well done.

Doug & Dot Wade Unit - Harvested numerous seeds from the more conservative flowers. Filled up three barrels with the good seed. Management plan written up for 1995. See workday calendar.

Northeast Unit - Twenty-nine people worked on brush removal and the seed collection from 20 species of flowers and grasses. The bags filled several warehouse drums.



East Heinkel Unit - Mike Crowe harvested wetland and woodland seed for this unit. Burn unit control lines were cleared of brush and mowed.

Main Unit - Sprayed multiflora rose with Krenite throughout much of the complex. Mike Adolf & Gary Tollakson. Cleared cherries and multiflora rose under oaks by Coyote Point and along an old fenceline. Left some

hazelnuts (*Corylus americana*) and a few young oaks. Fence and multiflora rose removed along pine plant-

ing by Mike Adolph & NIU independent study student, Gaurav Wallia.

Coneflower Unit - Numerous seeds hand picked and combined by various volunteers. Mary Ann Hoeffliger & Hazel Reuter are stewards.

Fen Unit - Tidied up brush clearing work under the oaks and expanded further into the buckthorn/cherry/plum thicket. Prairie gentian and Culver's root doing well. Kevin Kaltenbach, Chris Matson of Monmouth College are enthusiastic stewards.

Schafer Unit - Bags of great species collected over a three month period. Boundary lines cleared for prescribed burning. Brush pile burned.



St. John's Wort

James B. Long

This Genus (*Hypericum*) has cymose, terminal yellow or purple flowers. A cyme is a flattish topped inflorescence where the central flower blooms first. The stamens are usually numerous. The leaves are opposite (in pairs) and usually pale green and very thin. "These are the blossoms which hung in the windows of European peasants on St. John's eve, to avert the evil eye and the spells of the spirits of darkness." These quotes are from an old book. "The flower gets its name from the superstition that on St. John's day, the 24th of June, the dew which fell on the plant the evening before was efficacious in preserving the eyes from disease." In Lee County I have found nine species of *Hypericum*.

* Kalm's St. John's Wort, *H. kalmianum*, grows in temporary sandy ponds, and is considered unusual in the county. This is a small woody shrub whose yellow blooms are abundant in July and August.

* Pinweed or Orange-grass, *H. gentianoides*, frequently occurs in bare sandy fields. It is so hair-like it can be easily overlooked. The flowers and capsules are very small and may look like immature flax (but our wild flax has singly disposed leaves). This seemingly insignificant little plant can be found from Florida to Texas, Maine to Wisconsin. How long did it take for the seeds to spread so far?

* Common St. John's Wort, *H. perforatum*, is introduced from Europe, and is the species credited with fending off evil spirits. It is a successful weed of old pastures and blooms all summer. If you hold a leaf

Special Thanks to:

- Sally Baumgardner has also lead field trips and given talks to over 1,200 people this year. Her articles on the Grasslands appear in the Dixon Telegraph and other area papers. In October, Sally, Mary Ann Hoeffliger, Dean Weidman and Hazel Reuter lead the fifth graders from Etnyre School in Oregon on a field trip that they appreciated despite a day long drizzle.
- We have received about 400 responses from readers to remain on the mailing list. Our one sentence support for stewardship request on the mailer form yielded the significant amount of \$4,144! We have designated the money towards the purchase of prescribed burn equipment. Purchased so far are a pumper unit for the all terrain vehicle, a pair of two-way radios, a leaf blower, five backpack sprayers, two fire brooms, and other hand tools.
- Ellen Baker for the labeling and sorting this newsletter. Ellen often has a tea party for friends coming over to help her.

up to the light you can see transparent dots over the surface. The yellow petals of the flowers are bordered by black dots.

* *Hypericum canadense* and *H. majus* are quite similar but differ in the width of their leaves. Both grow on wet sandy soil only. In most cases they produce only a single stem and a few yellow flowers.

* Marsh St. John's Wort, *H. virginicum*, grows in abundance near ponds and "stump sedges", and is 12 - 18" tall. The stems, leaves and flowers all have a bluish cast and the fairly large flowers are purple to pink.

* Great or Giant St John's Wort, *H. pyramidatum*, has recently been discovered at Nachusa Grasslands. It also grows along the bottoms of the Rock River. It can grow to 6' tall, and with its 1 1/2 to 5" long leaves, as well as 2" wide yellow flowers, it can be most impressive. This large plant developed from the same parents as the tiny pinweed. The St. John's Worts are an interesting group.

* If you look at Spotted St. John's Wort, *H. punctatum*, with a hand lens, you will see black streaks around the border of the yellow petals and black dots on the stems. These characteristics, along with its habitat of fertile sandy woods, separate this species from

* Round-fruited St. John's Wort, *H. sphaerocarpum*, often found in roadside and railroad ditches. It usually grows in full sun and has narrow leaves.

I cannot guarantee that these plants will ward off evil spirits, but I can assure you I have never encountered any evil spirits in my travels through the county.

Autumn-on-the-Prairie '94

Gene St. Louis, Chairperson Autumn-on-the-Prairie 94, which was held September 17, is being hailed as the best ever. Due to the efforts of our festival managers, an estimated 600 guests enjoyed a splendid day in the country.



Upon arrival, our guests were greeted by the Welcome Tent, organized by Susanna Kleiman. She was assisted by Andy Jackson, Ellen Baker, Shane and Sue Coers, David Edelbach, Tod and Tanya Bittner, Pat Thomas, Richard Markeloff, and Jeannine Esmond.



A new event was Jamb-on-the-Prairie, an impromptu accoustical musical event put on by Nachusa



steward Mike Crowe, Tim and Mark Foss, Jim Kanas, and Don Strange. These gifted musicians played piano, guitars, violins, banjo, and several other instruments throughout the day.

The main activity for most visitors was taking tours of the prairie itself. Due to Mike Adolf's excellent organization and scheduling, tours were leaving the main area every 15 minutes throughout the entire day. In addition to Mike himself, tours were given by Mel Hoff, Kevin Kaltenbach, Chris Bronny, Dennis Lubbs, Al Roloff, Gary Tollakson, Dean Weidman, Hazel Reuter, Ellen Baker, Jeff Meiners, Howard Fox, Dr. Paul Sorensen, Chris Matson, Max & Sally Baumgardner, Rob Ballard, Earl Thomas, Mike Crowe, and Bill Kleiman.

A new focus this year was the Children's Tent, [-4-]

organized by Sally Baumgardner with the assistance of Beth Laubach and Mary Kay Bronny. Among the highlights of the day was a presentation of 'the professor', a 4 foot-Fox Snake that lives at Sally's house and a box turtle found by Max Baumgardner. The turtle was released at the end of the day. This event was supposed to end at 2:30, but the children were having so much fun it was extended for another hour.

The main area again had a variety of educational displays. Chris Bronny brought out his western plains tepee and exhibited many plains Indian objects that go with it. Chris and his two children spent the previous night sleeping in the teepee. Dot Wade returned with her Winddrift Bookstore, selling a wide variety of nature books. All profits from her sales were donated to support AOTP. John and Sheila Holbo had an art and photography exhibit. Thelma Dahlberg returned this year with her collection of Native American artifacts. Floyd Sellers again demonstrated flint knapping, as well as part of his Native American stone artifacts collection. Diana and Alyssa Rod had a display of native flowers, and Cassandra Rodger represented the Lee County Natural Area Guardians with a display highlighting their work.

Andy Jackson was our publicity manager, and blanketed the area's newspapers and radio with promotions for AOTP. Gene and Diana Rod again supplied golf carts from their business to help get guests up and down the hill from the parking area to the main site. Shane Coers was a big help getting the tent area set up, and took several elderly ladies for a tour via golf cart. And once again, Snow White Bakery and Deli of Dixon kept our guests well fed with their delicious fare, and contributed a generous portion of their profits to help make AOTP possible again this year.



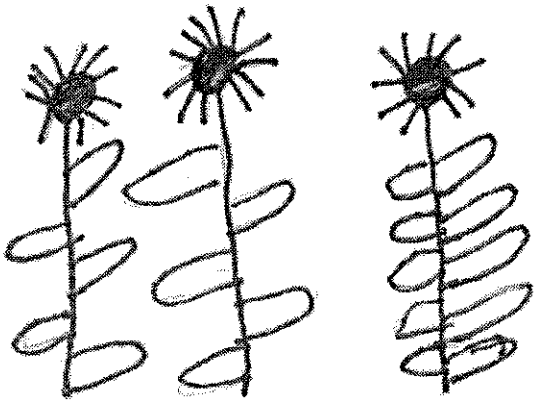
At AOTP, Jeff Meiners accepted a plaque from The Nature Conservancy and the Volunteer Stewards recognizing his family's efforts at protection, restoration, and stewardship of the Jay Meiners Wetlands Unit of Nachusa Grasslands.



This eight-acre area has a lowland filled with numerous sedge species, two small restored ponds, a winding stretch of Franklin Creek, and a remnant prairie remaining on one of the steep upland slopes. The entire unit is being restored and Jeff is the steward.

Jeff spoke of how his father loved nature, supported waterfowl conservation, and would have enjoyed our work at the grasslands.

Thank
you

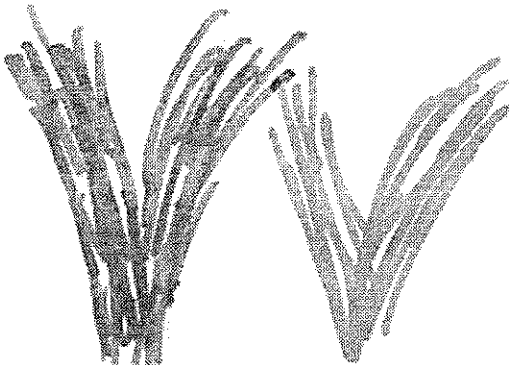


Dear Sally,

I really enjoyed the grasslands.
we found a lot of milber weed too.
We looked pretty stupid with our
socks up, but it was worth it.

Thank you,
Jessica Southworth

Grassland!!!



Note from Sally -

"A meadowlark came back one day
and searched beneath the faded hay
out in the rocks, beside a cleft,
to find a song that he had left.

He found it. And he tried it out.
He tossed the melody about,
and not a note was hurt a bit
by Winter drifting over it!"

By Aileen Fisher.

The following members of the Lee County Natural Areas Guardians (NAGs) provided needed leadership this fall: Hazel Reuter, Mary Ann Hoeffliger, Dean Weidman and Sally Baumgardner. These good-natured folks helped several area Fifth grade classes in seed-collecting expeditions. Our "compensation" ranged from a cash donation to the restoration efforts, several bags of high quality native seeds, getting soaked in an October rain, and more than a dozen brightly colored hand made Thank You notes. Thank you, NAG friends. You are living up to your organization's name.

Ted Wood, one of our Fall Interns in 1990, visited us in on a cold day in November. He is now working out of Missoula, Montana, and is an avid outdoorsman who scales western mountains with apparent ease. Comments we enjoyed from Ted were: "Can we visit Trash Knob?", "Hey, it LOOKS like a prairie now!", and "That fence row I worked on has disappeared!" It was clear Ted was happy to see the continuation of his efforts on such a grand scale.



Molting Eastern Sword-Bearer Katydid
Neoconocephalus ensiger
Photb by Jim Rowan

The Desire of the Flames- continued

As the temperature drops in the evening we learned, relative humidity sometimes increases to the point where combustion can no longer be sustained. And so it was with the fires in our five-acre site. They were dying. We walked the site a couple of times to ensure that all of the ebbing fires were contained by previously burned areas. We then collected our gear and climbed gratefully aboard the vehicles to ride to the yellow house for a potluck dinner. Bill, Susan Kleiman and we trainees (half of whom, incidentally, were women) all shared a well-earned weary glow.

“Fire answers fire, and through their paly flames
Each battle sees the other’s umber’d face;”
-- King Henry V, part IV prologue

The following morning, we logged a little more classroom and review time. Afterward, Bill took us

back out to the field for the day’s lesson — the suppression of “escaped” fire. This exercise consisted of Bill setting little spot fires a hundred yards or so from where we worked an existing fire. The drill was to extinguish our fire first, then to go after Bill’s escaped fires, which grew rapidly into formidable blazes. Bill escalated the size of the escaped fires until we were charging at a 75-foot wide wall of flame surrounded by five or six smaller spot headfires. Had we been confronted with this the previous day, we’d have all run away in terror.



It was hot and smokey work, but we had learned how to control even rather sizeable escaped fires. And we had learned amazingly fast. I guess adrenaline does that. We ultimately solved the problem of “escaped fire” by taking away Kleiman’s box of matches. School was out!

If you’ve read this far, you might be asking yourself if you might like to take Uncle Bill’s next burn workshop. My advice? Seriously? Do it! The experience — the knowledge, the confidence, the camaraderie — is worth the price of admission. You’ll also gain a new practical understanding of fire (particularly useful for burning backyard leaves in those areas where big brother still tolerates such activities). Finally, just by stomping around out there the better part of two days, you’ll come to know and appreciate a lot more about Nachusa and the various ecological communities in a prairie/savanna/wetland complex. [-6-]

Bill Kleiman plans to offer another burn workshop next Spring [see calendar].



Earl Thomas - Chris Madson

Susan Kleiman - John Santucci - Sue Kenny

Laura Bush

Missing from photo - Mary Ann Hoeffliger

Thanks to everyone who shared photos, stories, and articles for this issue of *Prairie Smoke*. Pictures tell stories and communicate sensitivities some authors find hard to express in words. Keep those contributions coming! This is your newsletter - help us tell your story.

A WONDERFUL PLACE

By Chris Madson

Stewardship on the prairie may appear vicious and destructive if one is watching the removal of trees and shrubs or sees the blackened and ash ridden landscape from a recent burning, but the following growth period proves that stewardship is, in reality, “tender loving care” and very rewarding. Such was the experience of some young stewards who cleared brush from “a wonderful place called a fen”.

It now sparkles with the lustre of fine wetland plants. In thanks, a few Michigan lilies bow to our efforts, even a few wild onions nod their pink approval, and some blue-eyed grass winks with affection. The eastern red cedars may regret our saws but the sedges see a different light, the black-eyed Susans have room to gaze skyward, and the light loving Bergamot has a chance to expand.

Calendar

February

- 4 Saturday: Workday on the Fen Unit with Kevin Kaltenbach
- 11 Saturday: Workday on the Jay Meiners Wetland unit with Jeff Meiners - cedar and brush thinning
- 18 Saturday: Brush clearing workshop with Bill Kleiman. Learn how and why, brush identification, the wonders of Garlon. Warmth, hot chocolate, & chocolate chip cookies guaranteed.
- 25 Saturday: Spring Prairie Smoke Deadline

March

- First Week: Prairie Smoke editors meet
- 4 Saturday: Workday - brush clearing with Bill Kleiman
 - 12 Sunday: Workday at East Heinkel Unit with Mike Crowe.
 - 25 Saturday: Workday at Fen Unit with Kevin Kaltenbach
 - *26 Sunday: Prescribed burning workshop with Bill Kleiman 456-2340

April >>Spring Prairie Smoke mailed<<

- 1 Saturday: Annual Skunk Cabbage Tour. See the early spring wildflowers and birds with conservationist and farmer Tim Keller
- 2 Sunday: Workday on Doug and Dot Unit with Gene St. Louis - fence removal with a hike through the Fen to Kittentail Knob. Burger barbecue to follow.
- 8 Saturday: Workday at NE Unit with Sally Baumgardner - Burn or brush cut.
- 9 Sunday: Workday on Doug and Dot unit with Gene St. Louis
- 15 Saturday: Annual Seed Planting Day - advertised in Conservator. Steward's potluck social following at Sally/ Max Baumgardner's Barn. Rain date is April 29.
- *21 Fri/Sat/Sun: Stewards' canoe trip at the TNC Cache project in southern Illinois.
- 22 Saturday: Seed planting on new unit with Sally Baumgardner.
- 23 Sunday: Workday at Schafer Knob Unit with Paul Harmon
- 29 Saturday: Workday at Fen Unit with Kevin Kaltenbach
- 30 Sunday: Workday at Main Unit with Mike Adolph

* **Registration required.**

>>> ALL WORKDAYS ARE FROM <<<
 9:30 - 1:30
 Bring a bag lunch.

Wish list for Nachusa Grasslands:

- pto mount sickle bar mower
- picnic bench
- hand tools
- fax machine
- flatbed trailer (5' wide)
- agricultural combine
- dissecting microscope
- old photos of the grasslands
- display easel

Donations are tax deductible & greatly appreciated.

Thanks to donors for:

- √-Table saw - Gene St. Louis
- √-Deluxe hand sewn radio harnesses for prescribed burns - Patty Van Buskirk
- √-VCR for presentations - The Huck family
- √-Snow Blower and accessories - Terry Nance & Cindy Acker
- √-Bottle of striped gentian seed (Gentiana flavida) - Dave Derwent

AOTP raffle donations - Thanks!

Native Plants for AOTP raffle - Fran Lowman & Ann Meyers of Enders Greenhouse and the Natural Gardens.

Big and beautiful stained glass - Seine Dockoff

Lost & Found at AOTP

Two children's sweatshirts were found after AOTP. One is blue in size large and the other is light gray in medium. Please call Gene St. Louis at (815) 756-8747 to claim them.



Cut wood for sale:

2-4' logs - pickup full for \$20 - you load.
Call 815-456-2340

Restoring and protecting native Illinois is fun and meaningful work, join us for a few work-days this summer. Meet at the barn behind the Yellow House, 2055 Lowden Road.

Clip & Save

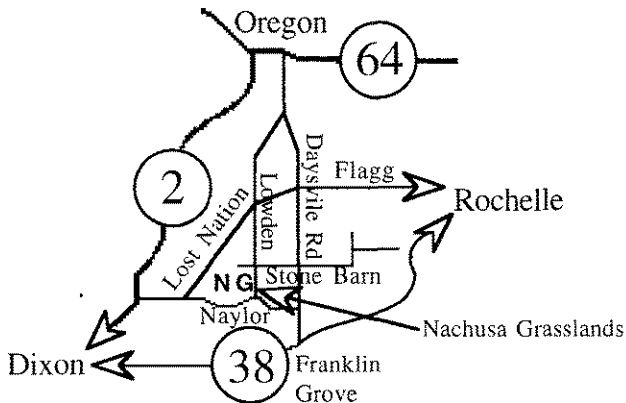
Post on Refrigerator Door

Clip & Save

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 Associate Editor _____ Bill Kleiman
 Associate Editor _____ Sally Baumgardner
 Associate Editor _____ Thelma Dahlberg
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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 me articles, photos, drawings, poems, cartoons, calendar dates (items of interest to the friends of Nachusa Grasslands). Articles on computer disk encouraged!



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