

Kansas Wildflower Society

NEWSLETTER

Volume 2 Number 3

Fall 1980





Kansas Wildflower Society

Sponsored by the Mulvane Art Center

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KANSAS WILDFLOWER SOCIETY NEWSLETTER

Volume 2, Number 3

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FROM THE PRESIDENT'S DESK

Dear Member:

The KWS directors met at 10 a.m. August 1 at the Mulvane Art Center. We had committee meetings in the morning and our regular business meeting after lunch. We have some very loyal and patient directors. The meeting did not adjourn until 4:30 p.m.!

Some important decisions were made. Because the KWS is so new, we decided we are not ready or able at this point to be an active participant in the proposed National Wildflower Society, or the new Association of Western Native Plant Societies. Both organizations are very worthwhile and we appreciate the invitations. We want to exchange newsletters and will be interested in their future projects and progress.

Mr. L. Harold Caldwell, Education Committee chairman, reported that his committee is preparing lists of wildflowers found in the different areas of Kansas. They plan to prepare written script to accompany the slides selected from these lists.

Although some of our newsletter covers have featured "introduced" wildflowers found in Kansas, future newsletters will restrict the cover flowers to "native" Kansas wildflowers. It is part of our attempt to further educate ourselves about our native plants. Also, we are reluctant to recommend out-of-state seed companies other than the ones listed on page 10 in our Spring 1980 newsletter because of our desire to promote native Kansas plants and seeds.

We will have our first seed exchange at our second annual meeting November 1 with Rachel Snyder in charge. Our members' interest in obtaining wildflower seeds has grown so we hope you have been able to collect a few seeds and that you will be able to attend and participate.

The annual meeting should be fun and an educational experience for all of us. Seed packets will be collected prior to the 10 a.m. meeting. The exchange will take place after lunch. After the exchange, members who

were unable to bring seeds will be able to purchase seed. We will have books and KWS T-shirts for sale. Homer A. (Steve) Stephens will be there for an autograph party. We regret Dr. Clenton E. Owensby will be unable to attend. Dr. Janét Bare will be there if possible.

The Nominating Committee chairman, Katherine Mermis (Mrs. Richard A.) has an excellent list of nominees for KWS directors to be voted on at the annual meeting. I want to take this opportunity to thank the outgoing directors for their help, interest and support the last two years.

You will find more detailed reports on the annual meeting and committees in this newsletter. Charter members will find their Certificates of Charter Membership enclosed. Deborah Ackman, Topeka, did the calligraphy for members' names.

This will be my last president's letter. New officers will be elected by the directors following the annual meeting. Little did I realize in November 1977 when I expressed delighted interest in Dallas artist Chapman Kelley's dream of painting the landscape with colorful patches of wildflowers that it would lead to the organization of the Kansas Wildflower Society, or that I would be president.

It has been my great pleasure to meet so many knowledgeable, enthusiastic and hard working directors and members. I am deeply appreciative for the time and effort so many of you contributed to the spring and fall outings, slide lectures, the newsletters, committee and other tasks. You have been super! With your help and support the Society will continue to grow and become an important factor in conserving our endangered plants as well as beautifying our Kansas landscape.

Mary Jo McClure

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OUR MEMBERS WRITE

HELEN B. BIERY, Overland Park: "Thank you a thousand times for the wildflower posters. All the members of the Overland Park Garden Club appreciated the use of them."

MRS. RONALD CONRAD, Clay Center: "Thank you so much for sending me the colorful brochures on "Yes, Kansas Has Wildflowers" for our May meeting of the Clay Center Garden Club. We were able to secure a slide program (from Salina) on wildflowers in the Abilene and Salina area. It was excellent and the book on *Favorite Prairie Wild Flowers and Grasses* is most informative and enjoyable. We were not aware of the beauty of wildflowers within our area."

MAEBETH WALTER, Downs: "I received the wildflower slides and other material sent out. I enjoyed the slides, and the people who saw them seemed to also. I very much liked the little book on [*Favorite Prairie Wild Flowers and Grasses*] and would like a copy of it."

KWS LENDING LIBRARY

Members wishing to borrow slides from the KWS collection should write to Mr. L. Harold Caldwell, 1506 North Vassar, Wichita, Kansas 67208, Chairman of the KWS Education Committee. Mr. Caldwell also has the following written script for slide lectures: **Sunflowers** by Mr. L. Harold Caldwell; **Rice County Wildflowers** by Horace Jones, Lyons. Members wishing to borrow the three 24" X 30" **posters** with colorful wildflower photographs, or for a supply of our **Yes, Kansas Has Wildflowers** leaflets for a group meeting, should write to the KWS, Mulvane Art Center, Topeka, Kansas 66621. Copies of **Favorite Prairie Wild Flowers and Grasses** may be ordered from the Smoky Hills Audubon Society, Box 173, Salina, Kansas, 67401, for \$2.00 + 50¢ for postage.

* * * * *

TIPS FOR SEED STORAGE

John Dickerson, Murdock, Nebraska

It's spring and I can hardly wait to plant my wildflower seed--the seed I so patiently harvested last fall. I've got the perfect spot for planting carefully prepared, and it will just be a matter of time before yellow, red and lavender flowers grace my environs. But as I open the bags of seed, I find that one contains a few coreopsis seeds and bugs. The clasping coneflower bag emits a gray cloud of fungus spores and little else that's recognizable. Rats! Well, at least the gayfeather seed seems o.k. Forgetting the yellows and reds, I'll settle for a solid stand of lavender, and so I plant. Time passes, but the expected grass-like gayfeathers seedlings fail to appear . .

It's fall now and local meadows beckon with their new seed crops. Out I go, backpack stuffed with paper bags and pruning shears. As I collect seed I vow not to let last spring's failures be repeated.

And they need not be repeated. This time I'll empty out each bag at home and dry the seed thoroughly. If the weather is humid during the drying process, I will place a mild heat source such as a 100 watt light bulb about two feet over the seed trays. When I stir the seed in the trays to promote drying, I'll also be looking through a magnifying glass trying to spot insect damage or the critters themselves or their smooth translucent eggs.

When the seeds are dry, the non-buggy ones will go into plastic bags and into the refrigerator. The bug infested lots will also go into plastic bags along with a small amount of moth crystal or malathion dust. The treated bags then go into a larger bag and out to the garage in a mouse-proof metal can. If I have enough space in the refrigerator freezer compartment, I will omit the chemicals and put the seed (and bugs) into sealed jars under the cold conditions in which insects do not function.

Some of the seeds I harvest will require fall planting to break dormancy prior to the growing season. Examples are penstemons, compass plant, and echinacea. Others, notably the gayfeathers, may or may not germinate readily if planted in early spring. Even fall planting does not guarantee a stand with gayfeather. There are obviously some complex dormancy problems with this genus. Patience, time, and weather will overcome the most hesitant gayfeather seed; though it may be the

second summer before they germinate. This seed is best stored in the ground.

Many of our wildflowers have a seedling or first year plant structure that bears little resemblance to the mature plant. Too many successful plantings are destroyed by impatience, so if you find yourself in doubt about the little plants coming up from your carefully stored seed, wait a year before putting in the petunias.

* * * * *

UNUSUAL SEED PODS I HAVE KNOWN

Bobbie Alexander, Shawnee Mission West
Biology Teacher and Member
KWS Board of Directors

In the fall, I require my Biology students to do a "Nature Study" project. These take many forms: one student made a collection of birds' nests which included an 18" long section of branch containing a woodpecker's nest! Among my favorites are the fall flower and seed collections. I carefully harvest the seeds and spread them in our wild flower patch in the middle of our school courtyard.

Several years ago a student included in a seed collection a delightful little bladder structure I remembered as a "Chinese Lantern" in my grandmother's wildflower garden in Oklahoma. Inside the little golden bladder was a single reddish colored berry-like fruit, which I planted midst a bed of "money" plant, and observing no immediate results, forgot about it.

But the Chinese lantern persisted, with a few more plants emerging each year. Finally one produced a "lantern" and I remembered the long ago planted seed.

Today I have 20-30 plants, remarkably resistant to the heat and drought, and many lanterns-in-the-making. I believe these plants to be Virginia groundcherry (*Physalis virginiana*) and heartily recommend them for wildflower gardens.

* * * * *

MANAGING NATIVE TALLGRASS PRAIRIES

Lloyd C. Hulbert
Director, Konza Prairie Research Natural Area,
Kansas State University, Manhattan

Many people think that the best way to manage a natural area is to leave it alone. That is a good way for some forests, and it would work for prairie if the area were large enough, such as the size of Kansas. It does not work for tallgrass prairie areas today, because leaving them alone does not provide the necessary conditions to preserve prairie. Before settlement there were large herbivores: bison (American buffalo), wapiti (elk), and pronghorn (antelope). There also was fire, started both by lightning and by the American Indians. C.A. White, in 1871, gives a vivid account of fires in western Iowa while he was making a geological survey. He said that usually the fires burn slowly and are stopped by small barriers, but when the wind is strong they may burn for "more than a hundred miles." He gives one account of such a fire.

We...stopped as usual, upon elevated ground, to camp where the breeze would prevent their (mosquito) visit. Procuring water for the camp, and watering our horses at a rill near by, we pitched our tent where we could overlook the surrounding country, and mowed the grass from a space of a few square yards upon which to build our camp fire of the few sticks we had brought from our last camping ground. Our supper over, and the horses picketed upon the grass that was still fresh by the rill, we lay down to sleep. The wind had been high all day, and did not abate upon the approach of night as it usually does. As it began to grow dark, I had observed in the distant horizon the light of a prairie fire. It was directly to the windward, and the face of the country in that direction was known to be such that nothing would be likely to arrest its progress towards us, except the stream before mentioned, and this I feared was too narrow for that purpose in so high a wind.

An hour was passed nervously watching the progress of the light and listening to the moaning of the wind, as it roughly swept the newly frost-killed grass. At last I could distinctly see the fire making its way down to the stream upon the further valley side; then for a time its light seemed to be gone, and I hoped its progress had been stayed by the water of the stream, but in a few moments more it had gained the top of the hither valley side. No time was now to be lost, so quickly arousing my companions, and bidding them follow me with their blankets, I seized a brand from the camp-fire and running a few rods to the leeward, a moment sufficed us to start a new fire from our camp, its progress towards it (for it will sometimes work its way slowly against the wind) being arrested by the beating of our blankets. One man then leading the horses into the burnt space, we followed, dragging tent, bedding, harness and camp-chest; then seizing the wagon, which was fortunately upon inclining ground, we rolled it safely in by the light of the fire we had kindled and also of that which was fast approaching us. Scarcely had we secured the last article and passed within the charmed circle, when the dense flames, leaping high in the air and rolling like surf upon the sea-shore, gathered around us, and enveloped us with their hot and suffocating smoke. We all, horses and men, stood there motionless; conscious of our safety it is true, but with an instinctive feeling of terror at the danger we had escaped. We were upon a hollow island in a sea of fire. A moment more, and it was a peninsula, for the advancing fireflood parted around us; and then we were left in the darkness, intensified by the blackness of the charred earth, while the flames swept on over the distant prairie, like a troop of flying fiends. (*American Naturalist* 5(2):68-70, 1871).

Thus in presettlement times a particular spot could be burned even though the fire started miles away. Today that is not true, so in managing prairie it is necessary to purposely burn the prairie.

Why burn prairie? One important reason is to keep out shrubs and trees. If a prairie is left alone and unburned it will sooner or later become a forest; often a poor forest, but certainly not a good prairie. In eastern Kansas there are many areas not plowed that once were fine prairie but now are completely covered by forest. The prairies in the Flint Hills of Kansas have been frequently burned by the ranchers in the last century. As a result the forest has been kept out and some good prairie remains.

Another reason to burn is because a prairie will deteriorate if left completely alone. The accumulation of old dead plants, which can form a layer one to two feet deep (or even more) is detrimental to the development of prairie plants. Production increases if the heavy accumulation of old dead grass is removed. When old dead grass accumulates for several years many of the smaller plants gradually become weaker and eventually disappear.

Is burning all one needs to do to have fine prairie? The answer depends on what is wanted. Burning alone can provide tall, vigorous grass growth that is beautiful to see, but it is not the same as the original prairie. Some species of plants that were part of the original prairie will not persist in this burning-only management. On Konza Prairie we have ungrazed areas that have been burned and others unburned for nine years. The tall grasses are vigorous on the burned areas, but I believe some of the smaller species are becoming scarcer. The native herbivores, bison and elk, grazed unevenly, clipping the vegetation quite short in some places and grazing little or not at all in other places. This provided more variety than burning alone, and so allowed more species to persist than if no grazing occurs. Obviously, heavy grazing so all the prairie is clipped short is undesirable, and can result in loss of many species, but some grazing appears to provide more variety and allow more plants and animals to do well than without any grazing. To have the greatest variety of flowers, some burning and some grazing appear desirable. Plants and animals differ in their needs, so the

more different soils and the greater the number of conditions present, the greater will be the number of flowers found.

How does one manage prairie for wildlife? That depends on the species, of course. Two important tallgrass prairie birds are the greater prairie chicken and the upland sandpiper (upland plover). Late spring burning can destroy their nests, so one might conclude that to have a high population of these birds one should not burn. However, then forest would eventually replace the prairie, and the birds would leave. For these species, and for many others, it seems best to burn part of the area, but not all, each year. Those nesting in the unburned part will not be affected, and those whose nests are destroyed will have cover in the unburned areas for renesting. This variety of treatment also is good for having a variety of plants.

When should a prairie be burned? Late spring; that is, after big bluestem and Indiangrass have started to grow, is a good time. Burning earlier leaves the soil bare longer and this can result in more loss of nutrients and water, which result in reduced productivity. Natural fires occurred at various times, and so it might be useful to have some earlier fires, but I do not recommend that most burning be earlier than mid-April in Kansas.

Fire is dangerous. Unless the area to be burned is surrounded by roads or cultivated fields, it is important to have experienced people, good equipment, and suitable weather (which means light wind blowing consistently from one direction). People who have struggled to get a campfire burning often do not realize how easily fires can start at certain times or how fast they may move.

On Konza Prairie Research Natural Area - a 8616 acre research prairie a few miles south of Kansas State University, we have areas being burned experimentally at various seasons; mostly in late April but other small areas are burned in autumn, early spring, and late summer. Areas are burned at 1-, 2-, 4-, and 10- year intervals. Of course some areas are unburned, if we can keep out wildfire.

We have not started the grazing experiments because the necessary fences have not been built. We plan to reintroduce bison, elk, and pronghorn. With fire and the

native grazers we will have the prairie as close to presettlement conditions as we can get it. The Grassland Heritage Foundation is seeking funds to build the fences.

We also have mowing studies underway. One reason pertinent to the question of management is whether or not mowing can substitute for burning in prairie preservation. Mowing keeps out woody plants and mowing and haying remove the old growth. The results so far indicate that it does help in preserving prairie, but there are some unanswered questions. Sometimes certain plants invade mowed areas, such as sweetclover, but not always. Konza Prairie is dedicated to getting more knowledge about this and many other questions.

The Grassland Heritage Foundation has leased several hundred acres on the south side of Melvern Reservoir southeast of Topeka, Kansas, from the U.S. Corps of Engineers. A management plan is being developed and implemented, which at present calls for burning about one-third of the areas each year. The first part was burned in April, 1980. Soils vary in thickness from none over bedrock outcrops to deep soil, so the area should be rich in prairie species. It should be an attractive prairie area to visit in coming years.

* * * * *

UNESCO PICKS KONZA PRAIRIE AS RESERVE AREA

With frequent references to a fear that natural environments are disappearing, officials of UNESCO, Kansas State University and the Nature Conservancy renewed in May cooperation to preserve a part of the prairie. . . . An 8,000 acre tract southwest of Manhattan, the Konza Prairie, was designated as an official reserve of the United Nations Educational, Scientific and Cultural Organization (UNESCO) Man and the Biosphere Program. The Konza Prairie will be one of 33 U.S. tracts and of more than 100 in 90 countries to be included in the program which seeks to study various ecosystems and man's relation to them. (from an article by Rita Shelley, State Staff Writer, Topeka Capitol-Journal, May 11, 1980.)

**PEOPLE ARE PART OF THE PRAIRIE:
AN INTRODUCTION TO THE GRASSLAND
HERITAGE FOUNDATION**

Sally A. Delwiche

Exec. Director, Grassland Heritage Foundation

Let's head for a hike on the prairie. Sound impractical after such a hot Kansas summer? Oh, but what better prairie to hike than one on the south shore of a large body of water? Just for the asking, Melvern Lake Reservoir Prairie, managed by the Grassland Heritage Foundation, is now available for you to explore.

Now sit back and envision a herd of shaggy bison, pronghorn antelope, and majestic elk roaming over hills of the Konza Research Prairie. Sound inspiring? The Grassland Heritage Foundation thinks so.

Have you heard of us? The Grassland Heritage Foundation was established in 1976 as the Tallgrass Prairie Foundation. Our Concern for the history and preservation of all types of prairie, short, mid, and tallgrass is reflected in our new name. Our nonpolitical goals might be compared to those of the Missouri Prairie Foundation to encourage public awareness of our American prairie heritage through lectures, literature, and correspondence, while managing selected tracts of unplowed prairie for the benefit and enjoyment of the public.

Though the prairie at Melvern Reservoir is our most visible responsibility, the Grassland Heritage Foundation is also concentrating on an effort to return native grazers to the Konza Research Prairie, directed by Foundation board member Dr. Lloyd Hulbert. A herd of bison, elk, and antelope roaming over 2,500 acres of the prairie will create presettlement conditions necessary for vital agricultural research. Recognizing the significance of this critical research, the Grassland Heritage Foundation is seeking donations from the public to fence the study sites, with the special fencing having a price tag of \$106,000. The fence must be seven feet high and of extra strength to keep bison and elk from crossing it. Would you like to be part of this unique fence project for the Konza Research Prairie?

How about planning a hike to the prairie at Melvern Lake Reservoir? Wildflower species spotted on this prairie include: White Fawn Lily, Yellow Star Grass, Wild Hyacinth, Prairie Larkspur, Illinois Bundleflower, Partridge Pea, and numerous others.

With wildflower and prairie enthusiasts working together, we can preserve and enjoy the beauty of our natural heritage. *For further information regarding either of these projects please contact Sally Delwiche of the Grassland Heritage Foundation, 5450 Buena Vista, Shawnee Mission, Kansas 66205. (913) 677-3326.*

* * * * *

VEGETABLE DYEING

"The more I dye, the nearer I come to the conclusion that there is color to be extracted from anything that grows. The dye women of Liberia bear me out. They believe that God made every plant with beautiful color in it, but the knowledge of how to get the color out for man's use is a secret between God and the plant. Only certain deserving people, those with cool, clear hearts may learn the secret. Well, there have been times when my heart was clearly not up to snuff, but on the whole my experiments have brought me joy."

So begins a most informative and useful 4-page article on dyeing with plant materials, sent to the KWS Library by Ada Townsend, textile artist and author of an article in the Summer 1980 Newsletter. The author describes steps necessary for yarn preparation, mordanting, preparation of the dye bath and dyeing, and suggests additional references and commercial sources of dye stuffs and chemicals.

To obtain a copy of the article, contact the KWS, Mulvane Art Center, Topeka, Kansas, 66621. Send a stamped, self-addressed no. 10 envelope.

THE LAND INSTITUTE PRAIRIE HERBARY

Wes and Dana Jackson, Co-Directors
The Land Institute, Salina

The Land Institute, Rt. 3, Salina, is establishing a **prairie herbary**. It will contain as many perennial native and naturalized grasses and wild flowers of the prairie states as is possible to grow and maintain. The herbary will be similar to an arboretum in its educational usefulness, but it will also be useful in our research devoted to the development of alternative crops. It will serve as a savings bank or germplasm nursery of native herbaceous perennial plants. The director of The Land Institute Prairie Herbary is Marty Bender.

Establishing the Prairie Perennials

In the spring of 1978, The Land Institute planted 40 prairie plant species in rows five meters long and were surprised that 37 of them were successfully established. This first modest effort was supported out of our general funds. This spring we received an \$8,000 grant through the Jessie Smith Noyes Foundation to extend the experimental plots and create, as far as we know, the first herbary of native prairie perennials. Approximately 200 additional species have been planted. To expand the project into a bona fide herbary, we will need to obtain seed of many more species, mostly from field collections. From our own experience, most seeds can be planted directly into the ground, but we are equipped with a greenhouse and did start some seeds in pots this spring.

Using the Herbary for Research

In the search for alternatives in agriculture, The Land Institute has begun several research projects. We have planted 400 accessions of Eastern Gamagrass (*Tripsacum dactyloides*) from across the species range and have begun a breeding program to increase seed production. Soon we will attempt crosses between Eastern Gamagrass and the new-to-science perennial, *Zea diploperennis*, a close relative of corn. Two perennial polyculture experiments are currently underway to compare the yields of monocultures with the yields of polycultures. We will use the expanded inventory of perennial prairie plants in the herbary as candidates to be included in further polyculture research. It will be extremely advantageous

to have plant materials easily available in an herbary at The Land.

Using the Herbary for Educational Programs

It seems to us that teachers are reluctant to take students into the field or to utilize a nature area if they do not know the names of the organisms. Teachers who are recognized for their outdoor classroom work do know the names. Our prairie herbary, with the names of species clearly marked, will provide an efficient laboratory for teachers to learn the plants. As soon as the herbary is well enough established, we plan to offer short plant identification workshops for both elementary and secondary teachers and allow them to take representative specimens. We will conduct tours of the herbary and present information on the role of the plant species in (a) developing the ecological capital, the soil, on which most of American agriculture rests, (b) as a source of future germplasm for a perennial agriculture, (c) as entities which exist for their own sake, independent of the needs of *Homo sapiens*. Regular students at The Land Institute will be expected to learn the plants from our staff members who do know them and to assist as tour guides.

Eventually, The Land would like to develop special programs for students at various grade levels and design the herbary tours to meet their interests and design the herbary tours to meet their interests and abilities. Follow-up materials for classroom can be prepared in consultation with the teachers. Although we plan to pattern activities after those at children's museums and planetariums, there will be a tremendous opportunity for new and creative uses of the herbary.

Perhaps in the future The Land can also provide moderate amount of seeds to schools and nature centers for prairie re-establishment projects, and compile a catalogue describing the plants for which seed are available and directions for cultivating these plants based on actual experience at The Land.

Conclusion

The desire to set aside prairie areas has been primarily motivated by an appreciation of the prairie's natural beauty. At The Land we are also motivated by the important practical value of prairie plants. We see the

prairie as a standard against which to judge our agricultural practices, and we seek to understand what elements in that steady-state economy can be adapted to create a sustainable agriculture, rather than the wasteful one we have developed. We remember the famous words of Thoreau, "In wilderness is the preservation of the world," and we concur with a statement by Charles Lindberg: "The human future depends on our ability to combine the knowledge of science with the wisdom of wildness." In a world with a growing human population and declining agricultural resources, we would turn to what is left of the only sustainable system this region has known in recent times, the grassland wildness, for our preservation.

The Land Institute Prairie Herbarium will be a savings account of herbaceous perennials which we may be able to invest into our agriculture to help feed future generations. At the same time we want to make the herbarium into an educational facility where people of all ages can learn the prairie plants and come to understand their importance in our past and in our future.

* * * * *



INTRODUCING: DR. RONALD MCGREGOR

Ralph E. Brooks, Assistant Director
University of Kansas Herbarium

In February, 1978, some 40 individuals met in Topeka to discuss a Kansas wildflower project. Among those attending was Dr. Ronald McGregor. His enthusiasm and active support, like that of many others, led to establishing the Kansas Wildflower Society. Since then Ron has served as President-Elect and continues to serve the Society as a member of the Board of Directors.

That "Kansas has wildflowers" is no news to Ron who has been a student of the Kansas and Great Plains flora for more than 40 years. Ron spent most of his youth in southcentral Nebraska, northcentral Kansas and northwestern Missouri. In 1937 he enrolled at the University of Kansas, Lawrence, as a biology major. By 1939 he was working as a student assistant to Dr. Worthie Horr, then curator of the University Herbarium. Dr. Horr at the time was attempting to increase the size of the herbarium by collecting 200 specimens of as many different plants as he could find. The duplicates were then to be exchanged or traded with other institutions. Although more than 100,000 specimens were distributed, only about 35,000 were received in return. Ron's first real exposure to collecting procedures and herbarium practices included a major role in Dr. Horr's project. Anyone familiar with what is involved in an undertaking such as Dr. Horr's quickly realizes that Ron spent some very long days in the field.

During his early years at the University of Kansas, Ron struck up friendships with botanists and other biologists throughout Kansas and other areas of the country. He had frequent discussions with persons such as Dr. Frank Gates, Kansas State University, who authored a series of books and papers on the Kansas flora in the 1930's. Another well known Kansas botanist with whom Ron associated was Dr. W. C. Stevens, author of *Kansas Wild Flowers*. These and other associations kindled an interest in the region's flora which burns within Ron yet today.

Ron remained at the University of Kansas throughout his academic career and received his doctorate degree in

1954. At that time he became a member of University of Kansas faculty and took over as curator of the herbarium when Dr. Horr retired. From 1957-1969 Ron served as Chairman of the Botany Department. In 1969 he became Chairman of the Division of Biological Sciences, remaining in that capacity until 1973. With encouragement from various people at the University and areas around Kansas, Ron turned the Division of Biological Sciences over to a new chairman and immediately assumed the position of Director of the State Biological Survey of Kansas which in turn makes him the State Biologist for Kansas. These duties, as well as remaining Director of the Herbarium and a teaching faculty member, occupy much of Ron's time today.

Despite all these responsibilities through the years, Ron has always projected the image of a professional botanist intent on learning all he could about the plants that thrive about him. And he willingly passes his years of experiences and observations along to his students and anyone else willing to lend an ear. It has been said by many people, and rightly so, that if you want to know what a plant is, ask Ron McGregor -- he knows them all! For his efforts he has a great deal to show. He and his students, which are now scattered across North America in universities and colleges, have built the University of Kansas Herbarium into the largest collection of its kind in the Great Plains region with holdings of approximately 300,000 specimens. Through the years Ron has spent countless days in the field studying our flora. From this he has gained an understanding of the composition of and associations within our flora that is had by few individuals.

In 1973, Ron organized a group of professional botanists from nine universities and colleges in the Great Plains to form the Great Plains Flora Association (GPFA). The purpose of the GPFA is to write a modern flora for the Great Plains region. Because of the breadth of Ron's knowledge concerning the plains flora he was elected coordinator of the project. Thirteen schools are now involved in the project and the writing is nearing completion. If all goes well one of Ron's longtime dreams will soon become reality and fill a long existing gap in the knowledge concerning the North American flora.

NEW BOOK RELEASE:

KANSAS PRAIRIE WILDFLOWERS
Iowa State University Press

Common, showy prairie wildflowers that occur in the varied landscapes and soils of the Kansas prairies are shown in **Kansas Prairie Wildflowers**, just published by the Iowa State University Press.

Plants are shown in four-color photographs, descriptions, and distribution maps. Medicinal, edible, and novelty properties are listed for most species. **Kansas Prairie Wildflowers** is at the same time an identification tool and a delight to view.

It is written and compiled by Clenton E. Owensby, associate professor, Department of Agronomy, Kansas State University, Manhattan. He begins with an introduction to the enormous differences in terrain, water, and soils across the Kansas prairies. He then goes into the ecology of the prairie wildflower and provides plant morphology and nomenclature.

Prairie wildflowers are grouped into divisions by color. The author's clear drawings join with each wildflower picture and description to make it easy for the layperson to identify the plants under observation. **Kansas Prairie Wildflowers** offers a glossary, reference lists, and indices to scientific and common names that prove helpful to the neophyte wildflower enthusiast.

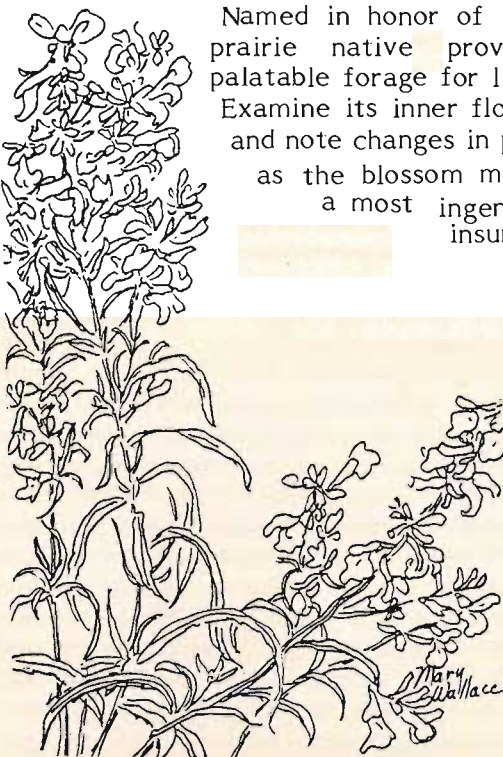
Of special interest to the outdoors person, teachers and students from junior high school through college work, as well as professionals in fish and game conservation, engineers, park authorities, and soil conservationists, **Kansas Prairie Wildflowers** is available from the Wichita Historical Museum, bookstores, or from the Iowa State University Press, \$15.00 cloth, \$7.95 paper. Members, please use the enclosed coupon. KWS will receive a bonus for each book ordered by our members.

WILDFLOWER IN THE SPOTLIGHT: PITCHER'S SALVIA

Janét E. Bare
Lawrence

Resembling fragments of azure Kansas sky snagged in the prairie grass, the delicate blossoms of Pitcher's salvia (*Salvia pitcheri*) tremble in the breeze, beckoning to the bees which are needed for pollination. A member of the Mint Family, Pitcher's salvia (or Pitcher's sage) is an erect, softly pubescent perennial growing to 4 feet tall, with square stems and narrow, toothed, opposite leaves. The blossoms are one-half to 1 inch long, with a prominent scalloped lower lip and a small, stiff upper lip, and are clustered in whorls within branched racemes. The plants are found mostly in the east three-fourths of the state on roadside banks and dry, rocky or sandy prairie hillsides and uplands.

Named in honor of Dr. Z. Pitcher, this prairie native provides nutritious and palatable forage for livestock and wildlife. Examine its inner flower structure closely and note changes in position of the stigma as the blossom matures. You will see a most ingenious mechanism to insure cross pollination!



The illustration here
is by KWS member
Mary Wallace
of Tonganoxie

ITS FOR THE BIRDS!

Paul M. Willis, Shawnee Heights Biology Teacher
and President of Topeka Audubon Society

The human species has become conditioned to the idea that, in order to be beautiful, an outdoor area must be completely managed. If the area has woody plants, the trees must be pruned by removing lower limbs. Shrubs must be shaped according to our tastes. Open areas must be covered with closely mowed grass for the entire growing season. This concept is most closely adhered to when planning lawns for private residences, business establishments, and public buildings. It also seems to be important in city parks, highway right-of-ways, and recreational areas. In the eyes of most people, an area which is not managed according to the above standards and is allowed to grow more nearly natural, is labeled as a "weedpatch," a "waste area," or an "eyesore." An unmanaged area is often looked upon as a source of snakes, spiders, and ticks. There is much public pressure put on private and public sectors to keep such areas "cleaned up."

These attitudes are underlying causes for much of the impact we have upon the environment. If we fully understood that every species of plant and animal is linked to all other species in an extremely complex and delicate web, we might view our surroundings differently. When we remove or prevent most species from living in an area simply because they are unsightly or are a "nuisance," we are damaging this web and are affecting many more species than we realize.

One of the many possible ways to illustrate interdependence is to note the relationships of birds to native plant species. Plants are vital to birds by serving as nesting sites, protective cover, and food sources or habitat for insects which are food for birds. As birds eat fruits and seeds of plants, they become important agents of seed dispersal. By feeding on insects, they help control populations of insects which are potentially destructive to the plants. Examples of common wild plants in Kansas which are excellent food and/or cover for birds are pigweeds, arrowhead, barnyard grass, bur marigold, bittersweet, blackberry, bluestem grasses, switch grass,

cattail, wild cherry, chickweed, buckbrush, crabgrass, Virginia creeper, gooseberry, dandelion, dogwood, elderberry, spurge, wild grapes, hackberry, poison ivy, mulberry, Osage orange, pokeberry, ragweeds, red cedar, smart weeds, and wild sunflowers.

Many people enjoy watching birds. These may be the same people who manicure their lawns and complain if land areas, both private and public, are allowed to grow "weeds" and "brush." Are we consistent? If we realize that the animal life we enjoy seeing is only a small part of this interdependent web, then we will learn to recognize "weeds" and "brush" as being beautiful.

Look around as you travel in your local area. Are there places on your own property where you can allow native plants to grow? Can you influence other persons to allow their property, parks, roadside ditches, fence rows, school property, or other areas to grow naturally?

* * * * *

Teacher Receives Award

KWS member Paul Willis, author of the preceding article, was this past spring one of 7 Kansas elementary and high school teachers who received the Master Teacher Award from Emporia State University.

The awards, established in 1954, are given each year to teachers who have "served the profession long and well, and who also typify the good qualities of earnest and conscious teachers."

In addition to his teaching duties, Paul is the Shawnee Heights National Education Association delegate to the Kansas NEA, has been an officer in the Kansas Association of Biology Teachers and holds 2 appointive positions in the National Association of Biology Teachers. He is also president of the Topeka Audubon Society and is a representative to the Kansas Advisory Council for Environmental Education.

DASIES PIED AND VIOLETS BLUE

CHARLES MARSON, Producer and Host of
"In Your Own Back Yard" TV Garden Show, Channel 13

Here are some more native plants that will fit into your wildflower picture, both for use in your own garden, watched for on the field trips and for conversation uses.

Yucca Soapweed (Yucca glauca). This is a bit different than the yucca commonly found in the garden shops. It is a native Kansas plant and quite abundant in western areas where many consider it a weed. It has a very good place in soil conservation as it causes the wind to whirl instead of blowing straight. This helps a great deal in preventing soil blow-off in windy periods. It likes dry, rocky and sandy soils and should be used more for soil erosion control. The tall white spikes of white flowers in May and June are very attractive. The long narrow sharp pointed leaves stay green all year long.

Hazelnut (Corylus americana). Hazelnut is a native form of the filbert found in the markets. The plants are bushy and tend to grow in thickets. They grow 3 to 6 feet tall with broad oval shaped leaves with a coarse toothed margin. It flowers early in March or April and the nuts mature in September. They are edible and the squirrels and other mammals will contest you for them. Birds like to nest in them. There is another form obtainable at garden shops called Harry Lauder Walking Stick that is contorted and very interesting. A good ornamental that is attractive to wildlife and has the plus factor of good edible nuts.

Wild Gooseberry (Ribes missouriense). The wild gooseberry grows in the woods and in pastures in almost any kind of soil. The bush is about 3 feet tall and sometimes as wide as 6 feet. It is prickly and is wonderful cover for mammals and birds. Cardinals and brown thrashers are very fond of them for nesting. They flower in April and May with the fruit maturing in July and August. The fruit is green turning to purple as it ripens. When green it is sour but gets sweeter as the color changes. Either the green or the ripe fruit can be used in jam, jellies or pies. It is a good soil conservation plant. Watch for them on field trips and if you want to pick fruit we suggest a good pair of gloves. A good plant for wild areas.

Golden Currant (*Ribes odoratum*). The golden currant is a relative of the gooseberry but without the prickles. The leaves are similar to the gooseberry, rather round with 3 to 5 lobes with coarse pointed teeth. It flowers in mid-April and bears fruit in June. The fruits are in drooping clusters, globe shaped and purple-black in color. They are used in jelly, jam and pies as the gooseberry. They are sometimes dried for later use. Birds are fond of them. It grows along the edge of the woods and out in the sandy area of Central Kansas. Watch for it and enjoy its fruit.

Black Raspberry (*Rubus occidentalis*). This is another plant that is good for conservation uses as the birds love the fruit and the patches of plants give good cover for birds and animals. They catch leaves that blow around and will cover the soil beneath them and retain the moisture. It tends to grow in clusters also. It flowers in mid-May and fruits in June and July. The fruit is delicious and can be used in many ways. The canes have curved thorns and should be treated with caution. Another good plant for wild spots. Keep an eye out for it.

Most of the plants can be started in an area where wanted. The easiest way would be to transplant small seedlings when the plants are dormant. The birds will love it if you can get some going in your wild spot.

* * * * *



WEAVE AROUND FOLLOW-UP

Jean K. Cohen, Textile Artist and Member,
KWS Board of Directors

At this time last year many were asking "just what is the relationship between wildflowers and weaving conferences?" Now we can tell you.

The conference was at Mulvane Art Center with 140 spinners, weavers and dyers in attendance. That huge bouquets of Kansas grasses graced the gallery and luncheon tables were adorned with wildflower arrangements isn't an unexpected connection. Displayed in the lobby area were homespun and wildflower dyed wools by Marilyn Jones of Peabody, unique looms designed by Phil Arnold of Ashland for incorporating plant material into woven fabric, and fascinating feathery grasses native to Kansas collected and identified by Mrs. Richard A. Mermis of Hays. These displays began opening many eyes and minds to the many ways flowers and grasses are used in yarn preparation, fabric construction and textile design.

The exhibit in the art center galleries was juried by Joy Rushfelt of Leawood, a fiber artist of national standing. Included were weavings incorporating the actual plant materials such as "Southwest Kansas Natives" by Phil Arnold, "Teasels" by Marion Knight of Topeka and "Root Beer Barrel Basket" by Marlysue Esping of Lindsborg. Other pieces used wildflowers and grasses as design elements, color and texture. Award winners were Crystal Cunningham of Lawrence, Eulalia Lewis and Jan Pruyser of Topeka. The "Wildflower Award" went to Mrs. Pruyser for plain weave yardage in wool titled "Thistles." I hope the Society has opportunity to see it at some future gathering: to describe it in words would take the talent of a poet. Catalogues of the exhibit are available at Mulvane Art Center.

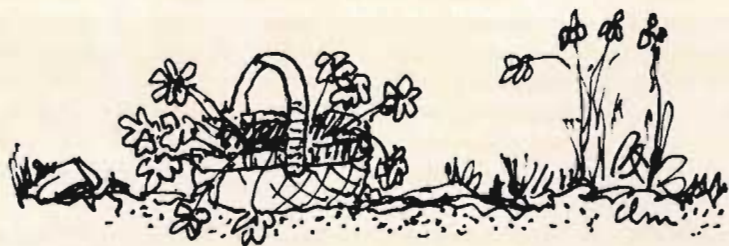
Positive influences of the Kansas landscape and environment were discussed by Jean Bass in her address to the conference. In mini-workshops Jan Pruyser spoke on design -- demonstrating how one observes a nature form and the steps taken to the resulting textile; Virginia Robertson spoke about and displayed "Grasskets" - the use of grasses in weaving and basketry.

The idea for the conference, which was sponsored jointly by Mulvane Art Center and Topeka Handweavers, came from weavers who were enthusiastic about the formation of the Wildflower Society and selected wildflowers and grasses as a weaving theme for that year for themselves, decided it was too good a thing to keep to themselves and began searching for others across the state with mutual interests. Mulvane was enthusiastic about a fiber exhibit and very brave in limiting "fiber" to hand weaving.

Further similarity is seen in that The Kansas Wildflower Society's seeds were sown at a gathering of a few interested people inspired by an exhibit at Mulvane of Chapman Kelley's "Wildflower Works" and The Kansas Alliance of Weavers and Spinners came into flower at this Weave Around. The next blooming of the Alliance will be a Weave Around hosted by the Wichita Handweavers, Spinners & Dyers Guild on February 20 and 21, 1981. That is what happens when Kansans with mutual interests and needs focus on an idea whose time is ripe.

We (Topeka Handweavers) have good color slides of the entire exhibit KANSANS WEAVE 1979 and are willing to loan them on request. Or will allow reproduction on request.

JKC



LET'S HAVE A SEED EXCHANGE!

Rachel Snyder, Editor-in-Chief, Flower and Garden Mag.

Our forthcoming annual meeting offers an opportunity for members to trade seeds of any wild flowers they may have, for others they may not have. To keep the event fair, educational and useful, here are the requirements:

First, if you have seeds of some Kansas wild flowers to share, clean them to remove chaff or hulls and package them in coin envelopes-- $\frac{1}{4}$ teaspoon of small seeds like penstemons, $\frac{1}{2}$ teaspoon of medium size like wild roses, and a teaspoon of big ones like sunflowers. Write the plant's name (use botanical name if you can) on the envelope; indicate the kind of place where it grows (for example: sun, well drained); and then add your own name and address in case the receiver wants to get in touch with you. If there are any special instructions for starting the seeds, add them briefly if you can get them on the packet. Bring the seed to the annual meeting. Have all of a single kind rubber-banded together.

There will be a table set up for them. Leave them there. After the scheduled events of the meeting are over, we will have them organized and ready for distribution. The arrangement will be that for each two packets you brought, you may receive one of your choice in return. Persons who brought none may buy packets at 50 cents each, but only after donors have had first choice. The distribution will take place mainly at the meeting, but any seeds left over might be offered later through The Newsletter.

Examples of kinds you could collect now:

black-eyed susans	goldenrods
Pitcher's salvia	asters
butterfly weed	sunflowers (various)
compass plant	wild roses
<i>Penstemon grandiflora</i>	blue or red lobelias
purple bur clover	gayfeathers
purple prairie coneflower	wild petunia (<i>Ruellia</i>)

Do not bring any kinds of the noxious weed list such as musk thistle or bindweed.

Please do use the 3½ x 2¼-inch coin envelopes so packets will be uniform and we can sort them easily in the brief time available. If this method works, it could be a handy way to widen the circle of wildflowers, and it gives another good reason to attend the annual meeting. You need not have lots of seeds. Just a half teaspoon is enough of most kinds. You will learn things about the plants when you collect seeds of them. *If you have questions, contact Rachel Snyder, 4200 Oxford Road, Prairie Village, Kansas 66208.*

* * * * *

CORRECTION!

The interesting article on wildflower photography in our summer 1980 Newsletter was by **Dr. Maxwell G. Berry, M.D.**, Kansas City, Missouri.

K.U. RECEIVES GIFT FROM THE WEIRS

The University of Kansas has recently announced a \$3.5 million gift from a Junction City Broadcast executive for a new building to house the University's broadcasting departments. The gift was made by Ralph L. "Bud" Weir and his wife Barbara, both K.U. graduates. The Weir's donation to the K.U. Endowment Association will provide funds for a building to house the academic programs in broadcast journalism, K.U.'s public radio station KANU, the university's student-operated KJHK, and the radio reading service for the visually handicapped, Audio Reader. Mrs. Weir is a member of the KWS and has served as an active member of the Board of Directors. She also served enthusiastically as Recording Secretary during our charter year.

REPORT OF THE KWS NOMINATING COMMITTEE

The 1980 Nominating Committee will present following slate of nominees, for KWS directors, to the Society membership for election at the second annual meeting November 1, 1980.

NORTHEAST

Dr. Ralph E. Brooks, Lawrence
Charles E. Marson, Topeka
Dorothy Rude (Mrs. Frank P.), Topeka
Walt Abmeyer, Topeka

NORTH CENTRAL

Dr. Houchang Khatamian, Manhattan
L. R. Quinlan, Manhattan
Dr. Lloyd C. Hulbert, Manhattan
Dr. Clenton E. Owensby, Manhattan

NORTHWEST

Tom Cannon, Lucas
Frederick M. Trowbridge, Colby

SOUTHWEST

Dr. Jeffery T. Burkhart, Dodge City
Miss Joyce Davis, Dodge City

SOUTH CENTRAL

Dr. Dwight Platt, Newton

SOUTHEAST

Mary Bancroft (Mrs. W. D.), Ottawa
Rev. Richard E. Kretzschmar, Pittsburg
W. W. Holland, D.V.M., Erie

Nominating Committee - Mrs. Richard A. Mermis, Chairman, Dr. Howard Reynolds, Jack Walstrom, Dr. Ronald McGregor, Philip Arnold, Dr. Dwight Platt, Mrs. Wm. Bancroft.

SECOND ANNUAL MEETING SCHEDULE

10 a.m., Saturday, November 1, 1980, on the Washburn University Campus, Topeka.

MORNING

HENDERSON LEARNING RESOURCES CENTER - ROOM 112 (Southwest corner) 19th and Jewell

- 9 a.m. - Receive seed for seed exchange
- KWS T-Shirts for sale \$8.00
- Book sale and Autograph Party

The following books will be available:

Trees, Shrubs and Woody Vines in Kansas by H. A. Stephens; paperback \$5.95.

Woody Plants of the North Central Plains by H. A. Stephens; Cloth \$20.00

Poisonous Plants of the Central United States by H. A. Stephens; Cloth \$16.00, Paperback \$9.95

Wildflowers and Weeds of Kansas by Dr. Janét E. Bare; Cloth \$35.00

Kansas Prairie Wildflowers by Dr. Clenton E. Owensby; Cloth \$15.00, Paper \$7.95

- 10 a.m.
-Second Annual KWS meeting and election of KWS Directors

- 11 a.m.
-"ENDANGERED AND THREATENED KANSAS WILDFLOWERS" talk by Dr. Ronald L. McGregor, Director, State Biological Survey of Kansas, The University of Kansas

AFTERNOON

MULVANE ART CENTER GALLERIES - Garvey Fine Arts Center, 17th and Jewell.

12 noon - Light lunch and preview of "500 Years of Botanical Illustration" from the collections of the Missouri Botanical Garden, St. Louis, Missouri. This exhibit is a Mid-America Arts Alliance Project.

12:30 to 1 p.m. - Seed exchange for those who brought seeds

1 p.m. to 1:30 p.m. - Seed sale for those who did not bring seeds

12:30 to 2:30 or 3 p.m. - The T-Shirt and book sale, and Autograph Party will continue.

1:30 to 3 p.m. - KWS Directors meeting.

IMPORTANT - IF YOU WILL BE ABLE TO ATTEND, PLEASE RESPOND BY RETURNING THE ENCLOSED CARD BY OCTOBER 27. We will need to know how many plan to stay for lunch, and how many T-Shirts and books to have on hand.

FRIENDS AND FAMILY ARE WELCOME!

* * * * *



OUR CONTRIBUTORS

Special thanks to the following for their contributions to the Kansas Wildflower Society:

CONTRIBUTING MEMBERS

Dr. John and Suzanne McFarland, Topeka

CONTRIBUTIONS FOR THE KWS LIBRARY

Thelma Leonard, Lakin
Helena Ramsey, Bittersweet Farm, Garland
Helen B. Biery, Overland Park
Mrs. Ronald Conrad, Clay Center
Maebeth Walter, Downs
Barbara McCarter, Legacy of Greenery Comm., Overland Park

The Regents Press of Kansas has donated a copy of the recently published *Poisonous Plants of the Central United States* by H. A. Stephens.

The Iowa State Printing Press has donated a copy of *Kansas Prairie Wildflowers* by Clenton E. Owensby.

Dr. W.W. Holland, D.V.M., Erie has donated a collection of 300 catalogued wildflower slides.

Dr. W.W. Holland, D.V.M., Erie, has donated a collection of 300 catalogued wildflower slides.

GIFT MEMBERSHIPS GIVEN BY

Felicita H. Bjorkman, Overland Park
Jack Walstrom, Salina
G. J. Hartmetz, Wichita
Jane Johnson (Mrs. Ross), Topeka
Kay Bryan, Topeka

An anonymous gift membership has been given to Boy Scout Troop #74, Ottawa, in memory of Marie D. Harding, a wildflower enthusiast formerly of Ottawa.

Three Wishes:



Genie, you don't have to overdo it!

Gift Membership

in the

Kansas Wildflower Society



A Gift Bound to Please

A membership in the Kansas Wildflower Society would be a welcome gift for your family and friends. They will remember you with each issue of the Newsletter.

Other possible appreciated and thoughtful gifts of Kansas Wildflower Society memberships could be "In Honor of" a valued friend or relative, or "In Memoriam" to honor a friend or relative. The memberships could go to a rest home, or to a school or church library. A "Thinking of You" membership for a Birthday, Anniversary or a holiday would be another appreciated gift.

Notice of your gift membership will be mailed to the recipient as soon as possible.

**The Kansas Wildflower Society is sponsored by
Mulvane Art Center, 17th and Jewell, Washburn University
Topeka, Kansas 66621**